

FURNIT-SAVER

Smart Augmented and Virtual Reality Marketplace for Furniture Customisation

D4.2 Validation Results and Recommendations

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	1 st February 2015
Project Duration	14 months
Deliverable Number	D4.2
Deliverable Title	Validation Results and Recommendations
Nature of Deliverable	Report
Dissemination Level	Public
Due date of deliverable	M14
Actual Date of deliverable	Last update on 15/05/2016
Produced by	ACS – Alessandra Giustiniani, Marco Tartaglia CENFIM - Jordi Albacar
Validated by	Eurecat – 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
30/12/2015	v0.1	Alessandra Giustiniani (ACS)	First draft
30/03/2016	v0.2	Alessandra Giustiniani (ACS)	First completed draft, taking into account all the Partners received inputs
30/03/2016	v0.3	Jordi Albacar (CENFIM)	Added CENFIM contribution to section 5
30/03/2016	v0.4	Bea Friol (WWING)	Added Westwing contribution to section 3.3 Added CENFIM contributions to section 5
31/03/2016	v0.5	Alessandra Giustiniani (ACS)	Section 5 reshuffled for readability improvement One new item added in section 4.2.1
30/12/2015	v1.0	Alessandra Giustiniani (ACS)	First draft
01/04/2016	V1.1	Alessandra Giustiniani (ACS)	Document reviewed taking into account the Eurecat comments
15/05/2016	v1.2	Bernard Likar (WIC); Jordi Albacar (CENFIM)	New feedback and conclusions from end users added to scenarios 3 and 4.
15/05/2016	V2.0	Jesús Pablo González (Eurecat)	Revision and approval for submission

Table of Contents

Document change record.....	2
1 FurnIT-SAVER project introduction	12
2 Scope of the document	13
3 Test Report	14
3.1 User requirements traceability.....	14
3.2 Validation Scenario Definitions	17
3.2.1 Scenarios summary	17
3.2.2 Involved actors	18
3.2.3 Test manager.....	18
4 Getting 3D models.....	19
4.1 Requirements and problems	19
4.2 Manufacturers providing 3D models.....	20
4.3 Other formats	20
5 Validation of recommender	21
6 Scenario 1 - Furnishing online a domestic space	30
6.1 Initial considerations	30
6.2 Participants.....	30
6.3 Feedback analysis	30
6.3.1 How do you prefer buying furniture?	30
6.3.2 In case you need buy furniture, would you use Internet before going to the shop?	31
6.3.3 Which of the following features are useful for you?	31
6.3.4 Do you consider important visualizing the furniture in the Virtual Reality Environment for your purchasing process?	32
6.3.5 Do you consider important visualizing the furniture in the Augmented Reality Environment for your purchasing process?	32
6.3.6 How positive are these aspects of the FurnIT platform for you? [Visualizing lots of furniture combinations]	33
6.3.7 How positive are these aspects of the FurnIT platform for you? [Useful recommender that helps to take decisions].....	33

6.3.8	How positive are these aspects of the FurnIT platform for you? [Saving different furniture combinations in my personal area]	34
6.3.9	How negative are these aspects of the FurnIT platform for you? [Too Complex]	34
6.3.10	How negative are these aspects of the FurnIT platform for you? [Too many steps]	35
6.3.11	How negative are these aspects of the FurnIT platform for you? [Not much furniture pieces]	35
6.3.12	Would you use the FurnIT platform in the future?	36
6.3.13	Would you recommend the FurnIT platform?	36
6.3.14	On a scale of 1-5, how satisfied are you with the platform content organisation? (1- not satisfied, 5 - very satisfied)	37
6.3.15	On a scale of 1-5, how intuitive is the FurnIT platform content organisation? (1- not intuitive, 5- very intuitive)	37
6.3.16	On a scale of 1-5, assess your user experience (1 - very bad, 5 - very good)	38
6.3.17	How likely is it that your satisfaction will improve thanks to using FurnIT?	38
6.3.18	What is your general opinion of the FurnIT platform?	39
6.4	Comments.....	39
6.4.1	Best of the FurnIT-SAVER project.....	39
6.4.2	Worst of the FurnIT-SAVER project.....	40
6.4.3	Suggestions of the polled people	40
6.5	Focus Groups	41
6.5.1	Digital Customers that buy home and living – FOCUS GROUP	41
6.5.2	Digital customers that do not buy home and living – FOCUS GROUP	42
6.5.3	Traditional Customers that do not buy online – FOCUS GROUP	43
6.5.4	IT, Marketing and communication – Panel of experts.....	44
6.5.5	Products and customers of home and living – Panel of experts.....	45
6.5.6	Focus Group conclusions.....	46
6.6	Conclusions.....	47
7	Scenario 2 - Furnishing a domestic space with the support of a retail shop	48
7.1	Initial considerations	48
7.1.1	Salesperson collaboration	48

7.1.2	Furniture shop implication	48
7.1.3	Do not interfere with the furniture shop	48
7.1.4	Putting the testers in context.....	49
7.2	Participants	49
7.3	Feedback analysis	52
7.3.1	How do you prefer buying furniture?	52
7.3.2	Last time you bought furniture, did you use the Internet to look for furniture? 52	
7.3.3	Last time you bought furniture, where was it?.....	53
7.3.4	In case you need to buy furniture, would you use Internet before going to the shop? 53	
7.3.5	Which of the following features are useful for you? (you can select more than one) 54	
7.3.6	Do you consider important visualizing the furniture in the Virtual Reality Environment for your purchasing process?	54
7.3.7	Do you consider important visualizing the furniture in the Augmented Reality application for your purchasing process?	55
7.3.8	How positive are these aspects of the FurnIT platform for you? [Visualizing lots of furniture combinations]	55
7.3.9	How positive are these aspects of the FurnIT platform for you? [Useful recommendor that helps to take decisions]	56
7.3.10	How positive are these aspects of the FurnIT platform for you? [Saving different furniture combinations in my personal area]	56
7.3.11	How negative are these aspects of the FurnIT platform for you? [Too Complex] 57	
7.3.12	How negative are these aspects of the FurnIT platform for you? [Too many steps] 57	
7.3.13	How negative are these aspects of the FurnIT platform for you? [Not much furniture pieces]	58
7.3.14	Would you use the FurnIT platform in the future?.....	58
7.3.15	Would you recommend the FurnIT platform?	59
7.3.16	On a scale of 1-5, how satisfied are you with the platform content organisation? (1- not satisfied, 5 - very satisfied)	59

7.3.17	On a scale of 1-5, how intuitive is the FurnIT platform content organisation? (1- not intuitive, 5- very intuitive)	60
7.3.18	On a scale of 1-5, assess your user experience (1 - very bad, 5 - very good)	60
7.3.19	How likely is it that your satisfaction will improve thanks to using FurnIT?	61
7.3.20	How likely is it that this number improves using FurnIT in the store?	61
7.3.21	What is your general opinion of the FurnIT platform?	62
7.4	Comments.....	62
7.4.1	Best of the FurnIT-SAVER project.....	62
7.4.2	Worst of the FurnIT-SAVER project.....	62
7.4.3	Suggestions of the polled people	63
7.5	Conclusions	63
8	Scenario 3 - Furnishing online an office or a hotel by a professional user	65
8.1	Initial considerations	65
8.2	Validation scenario preparation	65
8.3	Participants	65
8.4	Feedback analysis	65
8.4.1	How do you prefer buying furniture?	65
8.4.2	Last time you bought furniture, did you use the Internet to look for furniture? 66	
8.4.3	In case you need to buy furniture, would you use Internet before going to the shop? 66	
8.4.4	Which of the following features are useful for you? (you can select more than one) 67	
8.4.5	Do you consider important visualizing the furniture in the Virtual Reality Environment for your purchasing process?	67
8.4.6	Do you consider important visualizing the furniture in the Augmented Reality application for your purchasing process?	68
8.4.7	How positive are these aspects of the FurnIT platform for you? [Visualizing lots of furniture combinations]	68
8.4.8	How positive are these aspects of the FurnIT platform for you? [Useful recommendor that helps to take decisions]	69
8.4.9	How positive are these aspects of the FurnIT platform for you? [Saving different furniture combinations in my personal area]	69

8.4.10	How negative are these aspects of the FurnIT platform for you? [Too Complex]	70
8.4.11	How negative are these aspects of the FurnIT platform for you? [Too many steps]	70
8.4.12	How negative are these aspects of the FurnIT platform for you? [Not much furniture pieces]	71
8.4.13	Would you use the FurnIT platform in the future?	71
8.4.14	Would you recommend the FurnIT platform?	72
8.4.15	On a scale of 1-5, how satisfied are you with the platform content organisation? (1- not satisfied, 5 - very satisfied)	72
8.4.16	On a scale of 1-5, how intuitive is the FurnIT platform content organisation? (1- not intuitive, 5- very intuitive)	73
8.4.17	On a scale of 1-5, assess your user experience (1 - very bad, 5 - very good)	73
8.4.18	What is your general opinion of the FurnIT platform?	74
8.5	Comments	74
8.5.1	Best of the FurnIT-SAVER project	74
8.5.2	Worst of the FurnIT-SAVER project	74
8.5.3	Suggestions of the polled people	75
8.6	Conclusions	75
9	Scenario 4 - Furnishing hotel rooms or office spaces by a professional users with the support of a retail shop/showroom	76
9.1	Initial considerations	76
9.2	Validation scenario preparation	76
9.3	Participants	77
9.4	Feedback analysis	78
9.4.1	How do you prefer buying furniture?	78
9.4.2	Last time you bought furniture, did you use the Internet to look for furniture?	78
9.4.3	In case you need to buy furniture, would you use Internet before going to the shop?	79
9.4.4	Which of the following features are useful for you? (you can select more than one)	79

9.4.5	Do you consider important visualizing the furniture in the Virtual Reality Environment for your purchasing process?	80
9.4.6	Do you consider important visualizing the furniture in the Augmented Reality application for your purchasing process?	80
9.4.7	How positive are these aspects of the FurnIT platform for you? [Visualizing lots of furniture combinations]	81
9.4.8	How positive are these aspects of the FurnIT platform for you? [Useful recommendator that helps to take decisions]	81
9.4.9	How positive are these aspects of the FurnIT platform for you? [Saving different furniture combinations in my personal area]	82
9.4.10	How negative are these aspects of the FurnIT platform for you? [Too Complex]	82
9.4.11	How negative are these aspects of the FurnIT platform for you? [Too many steps]	83
9.4.12	How negative are these aspects of the FurnIT platform for you? [Not much furniture pieces]	83
9.4.13	Would you use the FurnIT platform in the future?	84
9.4.14	Would you recommend the FurnIT platform?	84
9.4.15	On a scale of 1-5, how satisfied are you with the platform content organisation? (1- not satisfied, 5 - very satisfied)	85
9.4.16	On a scale of 1-5, how intuitive is the FurnIT platform content organisation? (1- not intuitive, 5- very intuitive)	85
9.4.17	On a scale of 1-5, assess your user experience (1 - very bad, 5 - very good)	86
9.4.18	What is your general opinion of the FurnIT platform?	86
9.5	Comments.....	86
9.5.1	Best of the FurnIT-SAVER project.....	86
9.5.2	Worst of the FurnIT-SAVER project.....	87
9.5.3	Suggestions of the polled people	87
9.6	Conclusions	88
10	Scenario 5 – Furniture manufacturers	91
10.1	Initial considerations.....	91
10.2	Participants	91
10.3	Feedback analysis	92

10.3.1	Does the company sell furniture on-line?.....	92
10.3.2	Does the company create 3D models for its products?.....	92
10.3.3	Do you think that the FurnIT Platform would help you in the sales process?... 93	
10.3.4	Do you think that the FurnIT Platform would help your retailers (stores) in the sales process?.....	93
10.3.5	Would you recommend the FurnIT platform to your clients/retail channel (stores)?.....	94
10.3.6	Would you use the FurnIT platform to sell directly to the final client (people who wants to buy furniture)?	94
10.3.7	Would you use the FurnIT platform in the future?.....	95
10.3.8	Would you recommend the FurnIT platform?	95
10.3.9	On a scale of 1-5, how satisfied are you with the platform content organisation? (1- not satisfied, 5 - very satisfied).....	96
10.3.10	On a scale of 1-5, how intuitive is the FurnIT platform content organisation? (1- not intuitive, 5- very intuitive)	96
10.3.11	On a scale of 1-5, assess your user experience (1 - very bad, 5 - very good). 97	
10.3.12	What is your general opinion of the FurnIT platform?	97
10.4	Comments.....	97
10.4.1	Best of the FurnIT-SAVER project.....	97
10.4.2	Worst of the FurnIT-SAVER project.....	98
10.4.3	Suggestions of the polled people	98
10.5	Conclusions	98
10.5.1	Main comments on FurnIT-Saver platform given by Gonzaga company (manufacturer, sales person):	100
11	Test with furniture salespersons (scenario 6).....	101
11.1	Initial considerations.....	101
11.2	Participants	101
11.3	Feedback analysis	102
11.3.1	Do you use the PC and/or tablet/iPAD as a support tool for your sales?.....	102
11.3.2	Does the company sell furniture on-line?.....	103
11.3.3	In your opinion, how many people look for furniture on the Internet before coming to the shop?.....	103
11.3.4	Do you think that the FurnIT Platform would help you in the sales process?. 104	

11.3.5	Would you recommend the FurnIT platform to your clients?	104
11.3.6	Would you recommend the FurnIT platform to your providers?	105
11.3.7	Would you use the FurnIT platform in the future?	105
11.3.8	Would you recommend the FurnIT platform?	106
11.3.9	On a scale of 1-5, how satisfied are you with the platform content organisation? (1- not satisfied, 5 - very satisfied)	106
11.3.10	On a scale of 1-5, how intuitive is the FurnIT platform content organisation? (1- not intuitive, 5- very intuitive)	107
11.3.11	On a scale of 1-5, assess your user experience (1 - very bad, 5 - very good) 107	
11.3.12	How likely is it that the number of orders improve using FurnIT in the store? 108	
11.3.13	How likely is it that this client satisfaction improves by using FurnIT in your shop? 108	
11.3.14	"FurnIT will allow me to attract orders of higher values." To which degree do you agree or disagree with this statement?	109
11.3.15	"FurnIT will help me to significantly shorten the time it takes me or my salesperson to close a deal with a client." To which degree do you agree or disagree with this statement?	109
11.3.16	What is your general opinion of the FurnIT platform?	110
11.4	Comments	110
11.4.1	Best of the FurnIT-SAVER project	110
11.4.2	Worst of the FurnIT-SAVER project	110
11.4.3	Suggestions of the polled people	110
11.5	Conclusions	111
12	Comparing the scenarios	113
12.1	Feedback analysis	113
12.1.1	Do you consider important visualizing the furniture in the Virtual Reality Environment for your purchasing process?	113
12.1.2	Do you consider important visualizing the furniture in the Augmented Reality Environment for your purchasing process?	115
12.1.3	Would you use the FurnIT platform in the future?	117
12.1.4	Would you recommend the FurnIT platform?	120

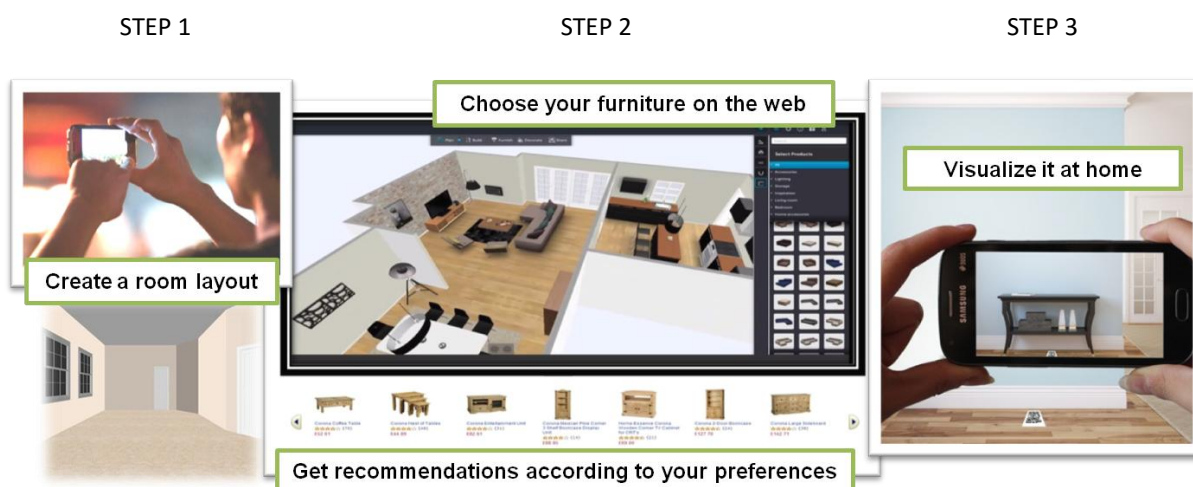
12.1.5	On a scale of 1-5, assess your user experience (1 - very bad, 5 - very good) ..	123
12.1.6	What is your general opinion of the FurnIT platform?	126
13	Future Recommendations.....	129
13.1	Recommendations	129
13.2	Defects	132
Annex A - Feedback answers from the validation phase		135
Scenario 1		135
Scenario 2		143
Scenario 3		151
Scenario 4		156
Scenario 5		161
Scenario 6		167

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 summarizes the results of the validation activities, determining if the user requirements defined into the WP1 have been met (or not). Additionally, all the major shortcomings detected in the validation activities that could not be solved during the project are included in this report, as well as any improvement and future recommendation.

The main inputs for this document are:

- user requirements
- application scenarios
- system specifications

And this report is divided into several main parts:

- **Test Report:** with the list of requirements and the level of compliance of the developed prototype, based on the Test Plan
- **Recommender Engine validation**
- **Scenarios Feedback Analysis:** analysis of the surveys done during the validation activities
- **Future Recommendations:** summary of shortcomings, improvements and post-project future recommendations
- Feedback forms answers

3 Test Report

3.1 User requirements traceability

In the following are collected the identifier and the text of all the requirements reported in the [User Requirements Document]; for each of them the corresponding implementation is traced.

When useful, details on implementation are added.

Req. Id	Req. Text	Implementation
PURchasers - REGistration		
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	The user registration is available on the web portal The login is available both on web-portal and on AR-App
FUN-PUR-REG-002	The system should allow the user to define his/her profile and preferences once logged in into the platform	A dedicated page is available on web-portal both for user and for manufacturer
FUN-PUR-REG-003	The system should create and assign to the registered user a "customer area" after the registration phase	It is the "home" page of the web-portal
FUN-PUR-REG-004	The system should be able to create an anonymized user profile according to the data gathered during the registration phase	All the gathered data are stored with a dedicated user_id
PURchasers – Defining the room LAYout		
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	The web portal run also on mobile devices like a tablet.
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	There is a dedicated area in the web-portal
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	Implemented
PURchasers – Using the Virtual Reality Environment		
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	Implemented
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	Implemented

Req. Id	Req. Text	Implementation
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	Implemented
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	Implemented
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	Implemented
FUN-PUR-VRE-006	The system should allow the user to use the Virtual Reality environment using a PC device	Implemented
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	Implemented; The web-portal Page: Admin User
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.	Implemented by the recommender; The result is displayed in the right side of the portal "recommended items".
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	Implemented
PURchasers – Using the Augmented Reality Environment		
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	Implemented;
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	Implemented; the changes to the furniture configuration are done in the web-portal and just uploaded in the AR.
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	Implemented;
FUN-PUR-ARE-004	The system should allow the user to	Implemented; the changes to the

Req. Id	Req. Text	Implementation
	change the furniture attributes depending on the manufacturer limitations using the Augmented Reality Environment	furniture configuration are done in the web-portal and just uploaded in the AR.
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	Implemented; but equal to FUN-PUR-VRE-005
FUN-PUR-ARE-006	The system should allow the user to use the Augmented Reality Environment through a mobile a mobile device	Implemented;
PURchasers - ORDering		
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 through existing eCommerce tools in Virtual and Augmented Reality Environments	The list only, possibly to be implemented after validation.
PURchasers – RECommender Engine		
FUN-PUR-REC-001	The system should recommend the user similar and complementary pieces to the selected furniture configuration in the Virtual Reality Environment	Implemented by the recommender; The result is displayed in the right side of the portal “recommended items”.
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)	Implemented by the recommender; The result is displayed in the right side of the portal “recommended items”.
RETailers – RECommender Engine		
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	Implemented by the recommender; The result is displayed in the right side of the portal “recommended items”.
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	Not Applicable to the implementation, the questionnaire managing is done aside.

Req. Id	Req. Text	Implementation
MANufacturers - REGistration		
FUN-MAN-REG-001	The system should allow the furniture manufacturers to sign up as a furniture provider using the marketplace registration tool	Implemented;
FUN-MAN-REG-003	The system should assign a “manufacturer area” to the furniture manufacturer once finish the registration step	Implemented;
MANufacturers – UPLoading furniture models		
FUN-MAN-UPL-001	The system should allow the manufacturers to create catalogues and assign them a season timeframe.	Implemented;
FUN-MAN-UPL-002	The system should allow the furniture manufacturers to upload new furniture pieces to the catalogues and define their attributes.	Implemented;
FUN-MAN-UPL-003	The system should allow the furniture manufacturers to modify the furniture attributes.	Implemented;
MANufacturers – Receiving Purchase ORDers		
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	The list only, possibly to be implemented after validation.

3.2 Validation Scenario Definitions

From the D4.1 [Validation Protocol Document] the main definition concepts are recalled.

3.2.1 Scenarios summary

Scenario	Title	Description
Scenario 1	Furnishing online a domestic space	A domestic user furnishes the living room of an accommodation using only the online capabilities of the FurnIT-SAVER marketplace, i.e. without attending a physical furniture retailer
Scenario 2	Furnishing a domestic space with the support of a retail shop	A domestic user that furnishes the living room of an accommodation attending to a furniture retailer and using the online capabilities of the FurnIT-SAVER marketplace to visualize the chosen furniture and add or modify new furniture pieces to the purchasing list
Scenario 3	Furnishing online an office or a	An interior designer or architect uses the platform online

	hotel by a professional user	to furnish one or several hotel rooms or an office space
Scenario 4	Furnishing hotel rooms or office spaces by a professional users with the support of a retail shop/showroom	A professional user makes use of the platform to visualize and get recommendations of possible furniture. The user captures one or several room layouts using the mobile app or through the web-based application. Then the user can visit a manufacturer/showroom to see the furniture. Finally, the user shows the final results to the client
Scenario 5	Manufacturers uploading furniture pieces in the platform	The manufacturers use the platform to upload their products and defining its attributes such as type, colour, finishes, style, quality, ...

To be in line with the application scenarios deliverable, the defined scenarios where 5, but in the validation the consortium has detected a **new validation scenario with the furniture salespersons** who work in the shops, who are in direct contact with the furniture purchasers.

3.2.2 Involved actors

The involved actors for all the scenarios are:

- Tester (domestic user or professional client), who is using the FurnIT-SAVER platform
- Furniture manufacturer, who uploads the furniture in the platform
- In some scenarios, the furniture salesperson (who helps the domestic user and the professional user) and/or the person who attends the showrooms (who helps the professional user)

3.2.3 Test manager

The test manager is the test responsible for each scenario:

Scenario	Partner	Test Responsible
Scenario 1	WWING	Lilit Delia / Bea Friol
Scenario 2	CENFIM	Jordi Albacar
Scenario 3	GONZAGA	Iztok Bizjak
Scenario 4	WIC	Bernard Likar
Scenario 5	CENFIM & WIC & GONZAGA	Jordi Albacar

The partners involved and the test responsible for the “scenario 6 – Salesperson”, are the same than the scenario 5.

The main responsibility for each test manager is to manage and implement the common and specific protocols of the scenario.

4 Getting 3D models

4.1 Requirements and problems

One of the most important requirement of the virtual reality platform is the file format for the furniture models: it must be **.3ds** or **.dae** extension. These files must include the texture references, and in separate files, the associated texture files.

All the furniture manufacturers use “**production models**” (CAD models). These models are useful for producing the furniture in the factory using CNC and other equipment, but they cannot be used for the virtual reality platform.

On the other hand, the physical catalogues (in paper) of the manufacturers contains “digital images (renders)” instead of photos because the “digital images” are cheap (compared to photos) and can be adapted and modified depending on the manufacturer requirements. The quality of the photorealistic renders are very good (like a photo) and they are obtained using 3D models.

Most of the furniture manufacturers subcontract externally the tasks of making the “digital images” to specialised designers and architects who develop the 3D models. These designers and architects deliver to the manufacturers high-quality renders that are included in the manufacturer catalogues. Then, the manufacturers only have the CAD models and high-quality images, but not the 3D models.

But the designers and architects never deliver the furniture manufacturers the 3D models they have used to develop the renders because the manufacturers don’t need these 3D models for the catalogues: they only need **high quality images**. In addition, the designers do not want to deliver the 3D models because it is relatively easy to do some changes to one 3D model and generate a new one.

Then, it was difficult to get the required files for the virtual reality environment taking into account the previous difficulties. Nevertheless, the consortium got more than 150 models:

- Some of the manufacturers develop the 3D models internally
- Some of the manufacturers use external providers to develop the 3D models and they ask the 3D models to the subcontracted entities. Even though most of the designers didn’t want to deliver the 3D models, the manufacturers pressure facilitates to achieve some of them
- Some of the manufacturers subcontracted external provides to develop the 3D models specifically for the FurnIT-SAVER project

4.2 Manufacturers providing 3D models

Company	Website
Baix Mòduls	http://www.baixmoduls.com/
MD Mobles	http://www.emedemobles.com/
Estiluz	http://www.estiluz.com/
Sillería Vergés	http://sverges.com/es/
Mobenia	http://www.mobenia.com/
Bover	https://www.bover.es/
Carpyen	http://www.carpyen.com/
Milan Iluminación	http://www.milan-iluminacion.com/
ROS	http://www.ros1.com/
JGGroup	http://www.jggroup.com/es
Azor	http://www.mueblesazor.com/
Decosan	http://www.decosan.com/
Alpes	http://www.alples.eu/
Murales	http://www.murales.si/
Gonzaga	http://www.gonzaga.eu/

4.3 Other formats

We have received different file formats from manufacturers interested in the project. Some of the formats were converted to files that could be uploaded into the virtual reality platform, but the consortium priority was to get the files from the manufacturers that do not need any conversion: **.dae** and/or **.3ds** file extension.

5 Validation of recommender

Recommender algorithms based on collaborative filtering techniques utilize a fairly simple scheme. The FurnIT platform is using this methodology for recommending furniture to users as explained in deliverable 3.2 Recommender System Engine. The recommender find users, more specifically in the project scope it find accommodations in the platform who have similar tastes or characteristics as the created by the current user, then compose the list of items the users selected and rank these items.

The obtained results are the Top-N items of the list. In this section we propose a novel scheme for evaluating the quality of recommendations made following an exhaustive cross validation approach¹². We empirically show the usefulness of this scheme by applying it to the FurnIT Recommender algorithm. The validation process used the data captured from the users while interacting with the engine through the Furnit-Saver web service.

The data used to validate the recommender come from the real data captured from the FurnIT-SAVER web interface and synchronized with the recommender database. For this validation procedure, the data consists basically in furniture, collections, manufacturers, layouts and accommodations. Specifically a slice of all available data has been considered where 56 accommodations have been considered as well as 109 furniture from 3 different manufacturers. The furniture used comprises from tables and chairs for dining rooms to cupboards and desks for offices.

The cross-validation process followed is an exhaustive procedure where we extract one by one the existing recorded accommodation from the database, in order to not being considered in the recommendation process. Then we ask to the recommender for recommended furniture iteratively adding the user selected furniture items, from the extracted accommodation on each query. In each loop, until all the furniture were included in the query, the recommendation is validated. The recommended furniture is compared with the furniture from the extracted accommodation and the weights of the recommended furniture are aggregated to know the quality of the recommendation.

Over the obtained data we applied quality measures similarity measures and distance metrics and evaluate the mean evolution, deviation and tendency. The process followed to empirically validate the quality of the recommendations using two strategies:

- Predictive Accuracy metrics: Mean Squared Error (MSE) and Mean Absolute Error (MAE). These predictive metrics allow to measure to what extent a recommender system can predict ratings of users.

¹ Geisser, Seymour (1993). *Predictive Inference*. New York, NY: Chapman and Hall. [ISBN 0-412-03471-9](#).

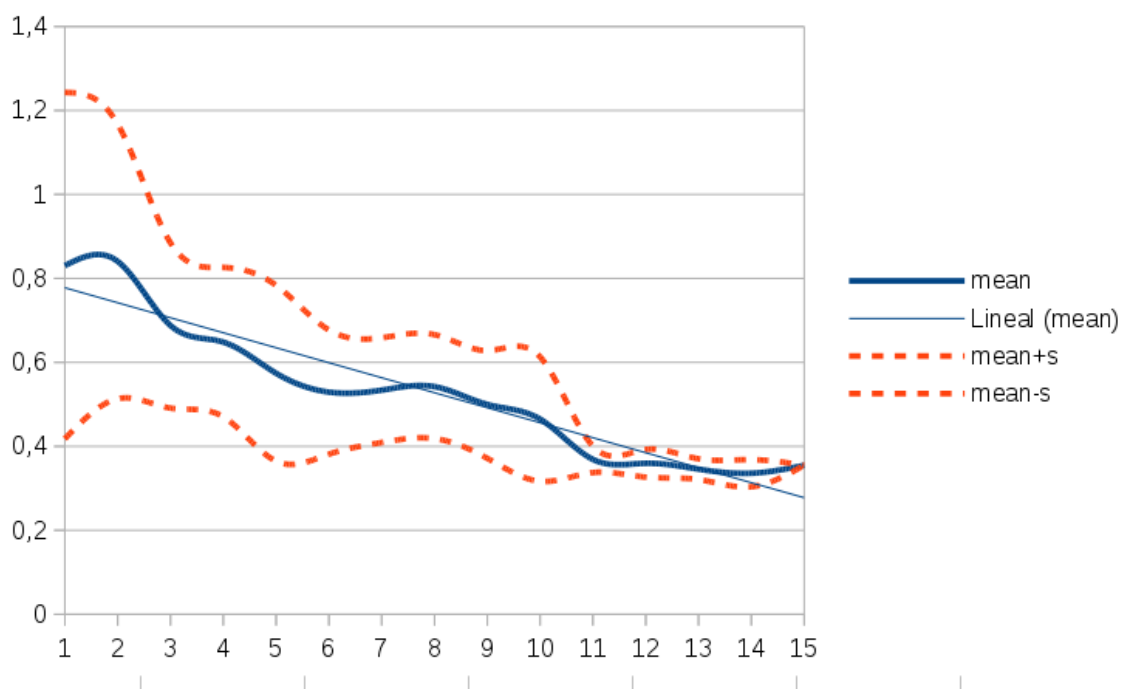
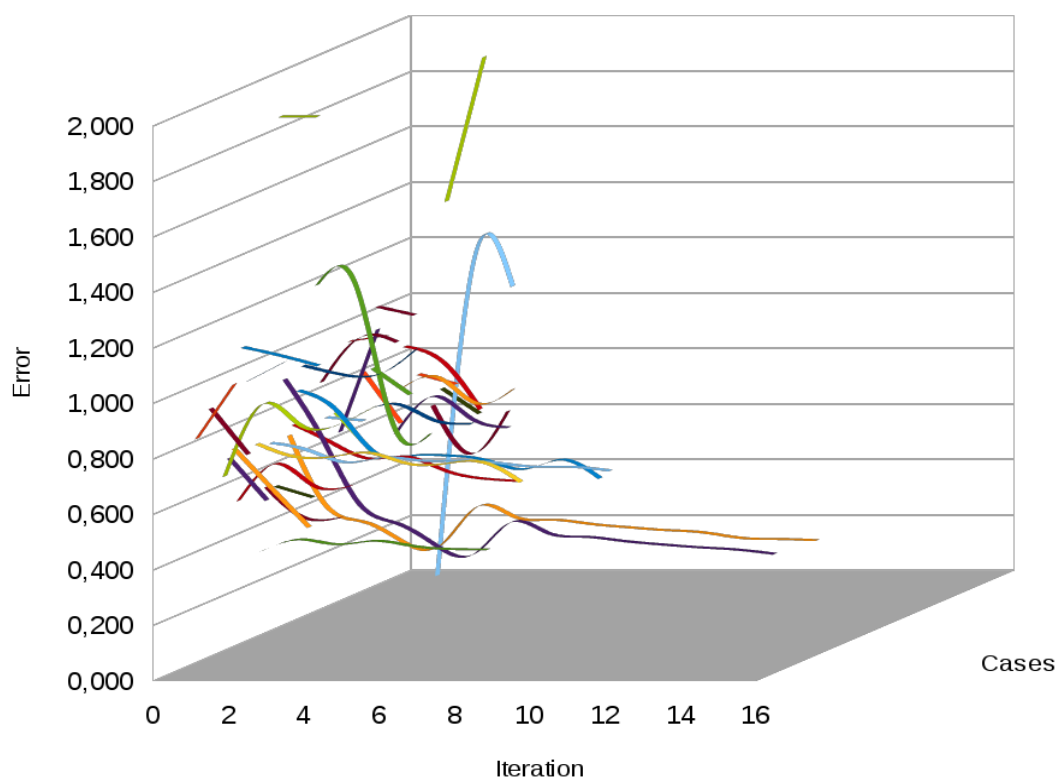
² Kohavi, Ron (1995). "A study of cross-validation and bootstrap for accuracy estimation and model selection". *Proceedings of the Fourteenth International Joint Conference on Artificial Intelligence* (San Mateo, CA: Morgan Kaufmann) 2 (12): 1137–1143

- Rank Accuracy Metrics (Cosine correlation and Pearson correlation). These metrics evaluate the ability to recommend an ordered list of items to a user, assuming that the order of the items is important

The following graphs show in rows each one of the accommodation tests, while the columns corresponds to the progressive increasing in furniture selected. The first column hold accommodation identifiers.

MSE: This coefficient tell us how many different are the suggested furniture recommendation and the real user choices, using a measure that is equivalent to the euclidean distance between pound distribution and user choices scaled down by space dimensionality. Decreasing values indicate better recommendations. At our case, values below 0.5 (near 0.3 in mean tendency) shows the recommendation capacity.

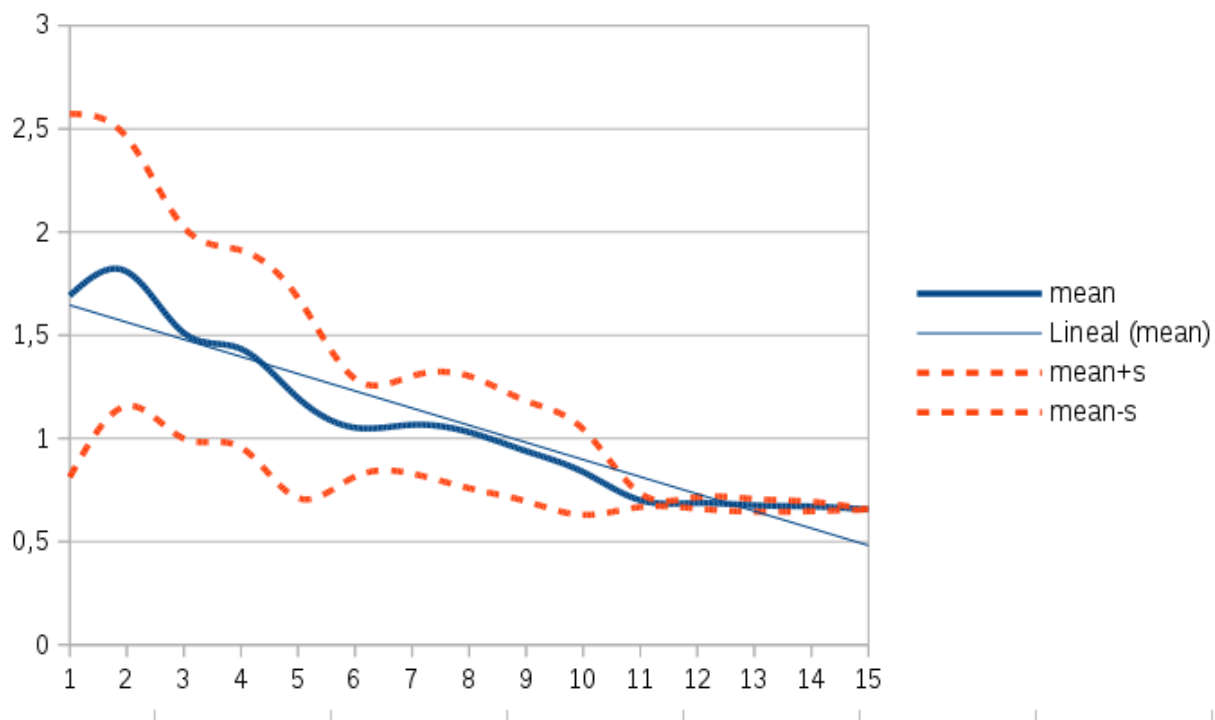
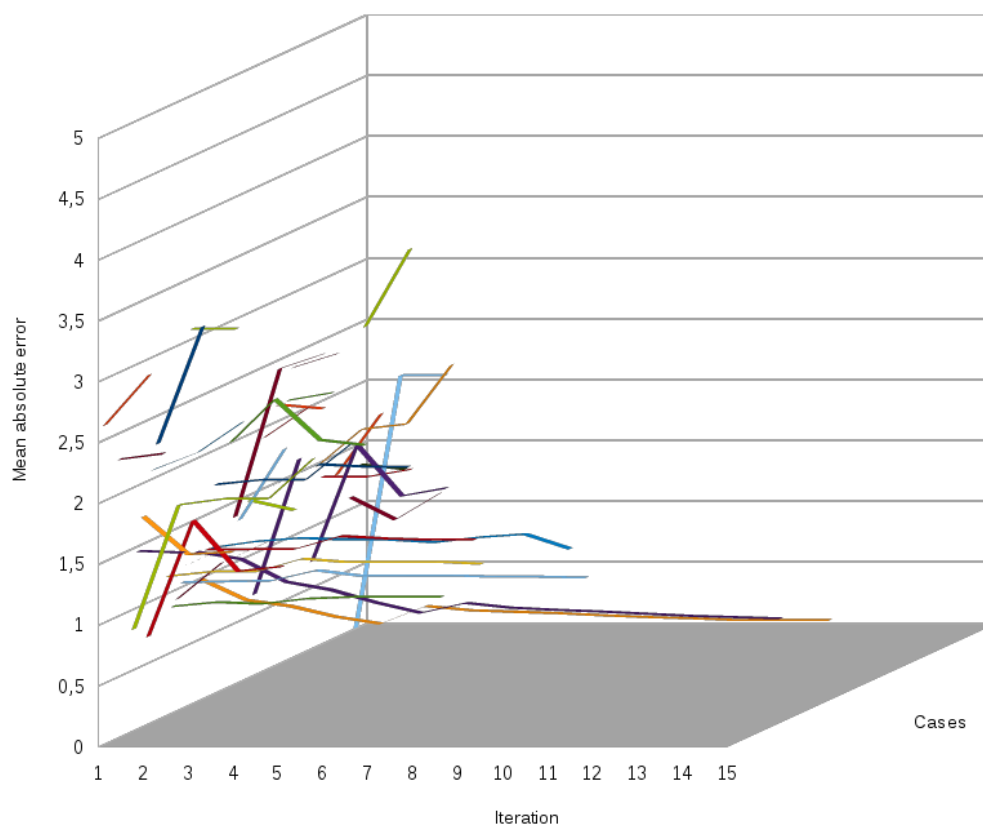
ID	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
291	0,359														
242	0,864	1,062													
188	0,625														
243	1,472														
268	0,952	0,786													
190	1,722														
269	0,240														
246	0,685	0,946	0,871	0,871	0,939										
247	0,745	0,593													
248	0,773	0,628	0,488												
271	0,576	0,709	0,630	0,631											
249	1,122	1,092	1,056												
250	0,993	1,063													
280	0,359														
177	0,753	0,706	0,706	0,719	0,681	0,681	0,686	0,616							
210	0,359	0,401	0,383	0,396	0,378	0,366	0,365								
252	0,583	0,473	0,473												
191	0,735	0,707	0,664	0,682	0,670	0,670	0,663	0,648	0,648	0,634					
285	0,572	0,532													
211	1,896	1,896													
230	0,943	0,728	0,490	0,422	0,345	0,311	0,427	0,388	0,374	0,359	0,347	0,336	0,328	0,313	
253	0,733	0,476	0,421	0,351	0,336	0,477	0,439	0,428	0,414	0,401	0,391	0,383	0,363	0,359	0,355
158	0,765	0,699	0,642	0,649	0,600	0,570	0,561								
179	0,881	0,810	0,659	0,645	0,645	0,629	0,597	0,631	0,564						
192	0,963	0,931	0,931	1,022											
182	0,760														
286	0,997														
255	1,232	1,240	0,734	0,696											
256	0,875	1,035	1,020												
232	0,741	0,729													
216	0,240														
194	0,745	0,599													
258	0,667	1,037													
259	1,167														
184	0,979	1,000													
198	0,844														
199	0,702	0,738	0,681	0,668											
185	0,847	0,663													
283	0,359														
261	0,847	0,752													
234	1,061	1,031													
186	1,375														
236	1,880														
263	0,885														
239	0,576	0,709	0,630	0,597											
202	0,728	0,770	0,678	0,729											
203	0,875	0,820	0,648												
264	2,000														
287	0,359														
265	0,754	0,718													
288	0,359														
289	0,359														
145	0,620	0,444	0,600												
301	0,000	1,153	1,042												
241	0,667	0,577													
187	1,333	1,854													



MAE:

This coefficient tell us how many different are the suggested furniture recommendation and the real user choices. Decreasing values indicate better recommendations.

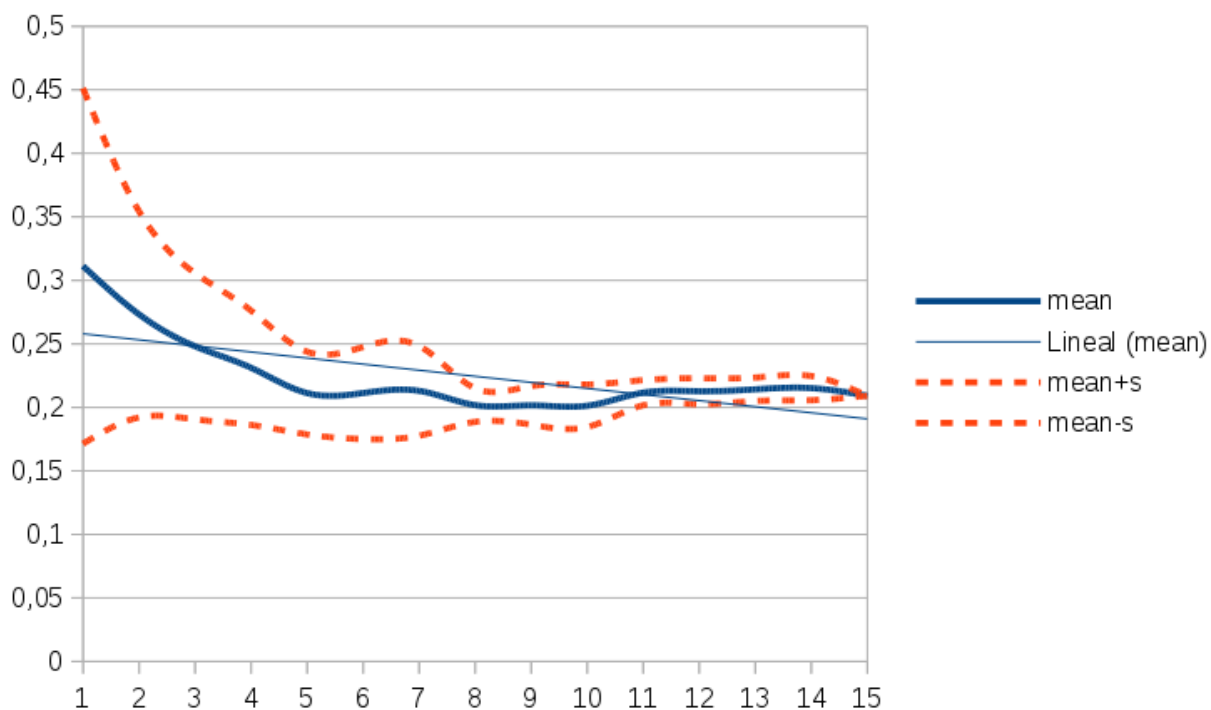
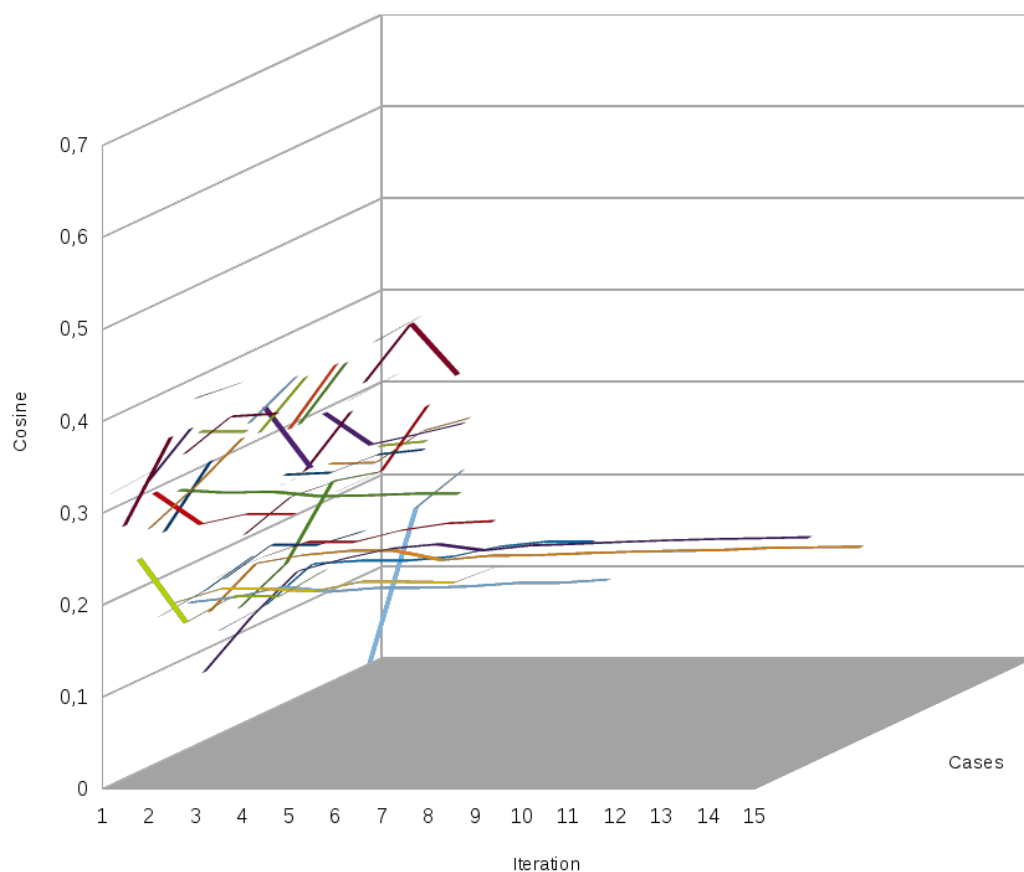
ID	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
291	1,261														
242	2,619	3,037													
188	1,750														
243	3,500														
268	2,286	2,333													
190	4,667														
269	0,800														
246	0,833	1,857	1,905	1,905	2,238										
247	1,458	1,444													
248	1,725	1,413	1,435												
271	0,720	1,675	1,257	1,297											
249	2,071	2,214	2,464												
250	2,267	3,233													
280	1,261														
177	1,143	1,179	1,179	1,288	1,259	1,259	1,263	1,244							
210	0,875	0,911	0,898	0,940	0,954	0,954	0,953								
252	0,917	1,219	1,386												
191	1,039	1,045	1,052	1,136	1,091	1,091	1,094	1,085	1,085	1,076					
285	1,159	1,333													
211	3,083	3,083													
230	1,233	1,175	0,985	0,921	0,817	0,733	0,814	0,776	0,756	0,743	0,724	0,707	0,697	0,687	
253	0,991	0,820	0,769	0,682	0,625	0,771	0,735	0,723	0,710	0,693	0,677	0,668	0,654	0,654	0,655
158	1,214	1,219	1,223	1,326	1,306	1,298	1,301								
179	1,210	1,264	1,293	1,280	1,280	1,256	1,300	1,325	1,204						
192	1,714	1,750	1,750	2,044											
182	1,800														
286	2,536														
255	2,000	2,360	2,025	1,982											
256	1,375	2,594	2,719												
232	1,333	1,917													
216	0,800														
194	1,458	1,375													
258	0,667	1,778													
259	1,833														
184	1,917	2,167													
198	2,000														
199	1,486	1,662	1,643	1,640											
185	2,133	2,100													
283	1,261														
261	2,133	2,194													
234	2,381	2,500													
186	1,750														
236	4,000														
263	2,850														
239	0,720	1,675	1,257	1,321											
202	1,480	1,786	1,829	2,314											
203	1,375	1,375	1,438												
264	3,667														
287	1,261														
265	1,333	1,841													
288	1,261														
289	1,261														
145	1,100	0,917	1,135												
301	0,000	2,083	2,083												
241	1,333	1,293													
187	2,444	3,083													



Cosine correlation:

In this similarity measure we don't expect big results because the pounding of selected furniture is not required to follow exactly the particular user evaluation. This measure also gets penalized by the fact that the recommendation is always wider than user choices.

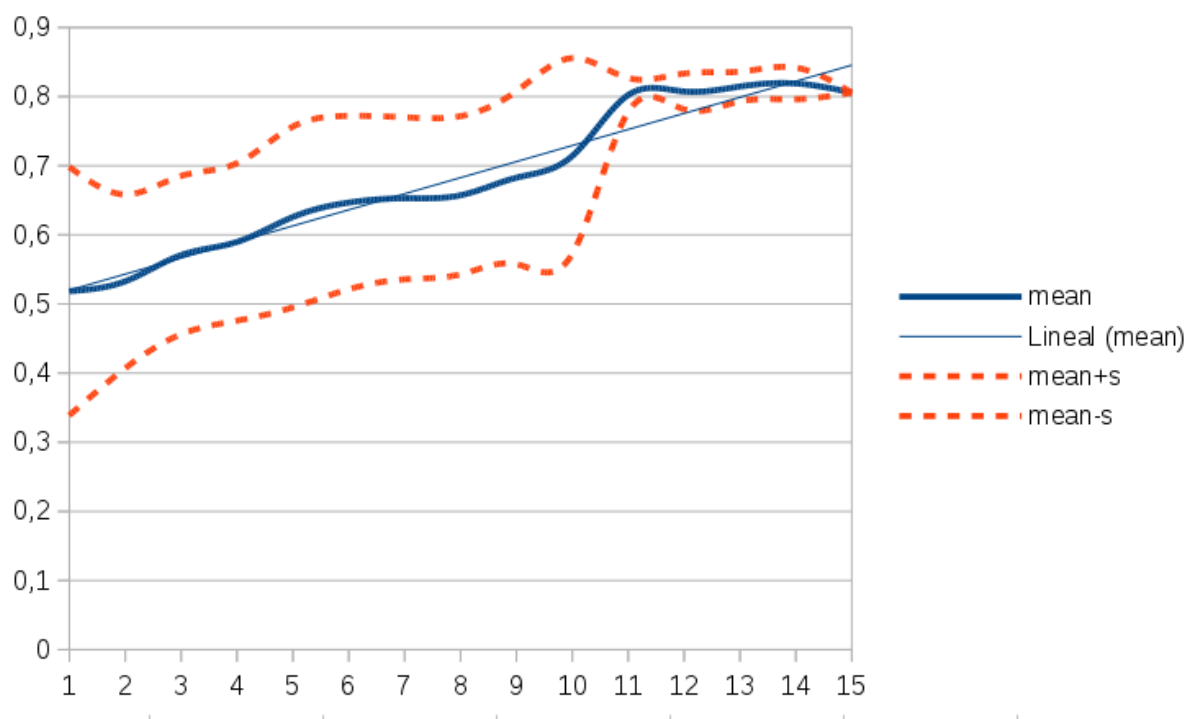
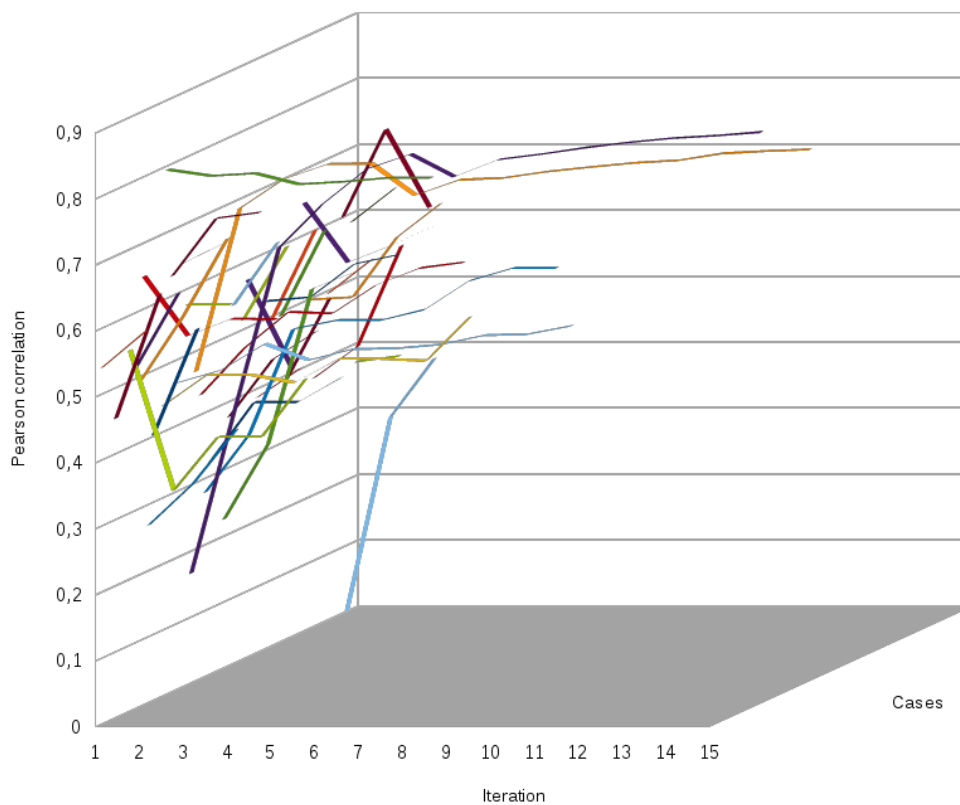
ID	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
291	0.566														
242	0.317	0.344													
188	0.459														
243	0.378														
268	0.275	0.372													
190	0.300														
269	0.617														
246	0.231	0.162	0.191	0.191	0.220										
247	0.308	0.371													
248	0.259	0.306	0.358												
271	0.296	0.262	0.273	0.272											
249	0.158	0.188	0.224												
250	0.248	0.326													
280	0.566														
177	0.166	0.181	0.181	0.178	0.189	0.189	0.188	0.207							
210	0.286	0.283	0.284	0.279	0.280	0.282	0.282								
252	0.323	0.364	0.367												
191	0.159	0.164	0.176	0.170	0.174	0.174	0.176	0.180	0.180	0.184					
285	0.378	0.395													
211	0.339	0.339													
230	0.075	0.135	0.185	0.199	0.210	0.214	0.207	0.213	0.215	0.217	0.219	0.220	0.221	0.222	
253	0.138	0.191	0.200	0.205	0.205	0.194	0.199	0.200	0.202	0.203	0.205	0.205	0.208	0.208	0.209
158	0.172	0.195	0.212	0.211	0.224	0.232	0.234								
179	0.113	0.141	0.185	0.189	0.189	0.193	0.204	0.209	0.209						
192	0.166	0.203	0.203	0.219											
182	0.433														
286	0.354														
255	0.127	0.175	0.265	0.275											
256	0.204	0.246	0.263												
232	0.323	0.373													
216	0.617														
194	0.308	0.369													
258	0.333	0.267													
259	0.327														
184	0.239	0.264													
198	0.385														
199	0.249	0.251	0.271	0.276											
185	0.296	0.367													
283	0.566														
261	0.296	0.363													
234	0.242	0.308													
186	0.302														
236	0.258														
263	0.407														
239	0.296	0.262	0.273	0.285											
202	0.238	0.239	0.274	0.288											
203	0.204	0.227	0.299												
264	0.250														
287	0.566														
265	0.297	0.325													
288	0.566														
289	0.566														
145	0.309	0.373	0.317												
301	0.000	0.170	0.211												
241	0.348	0.376													
187	0.232	0.237													



Pearson correlation:

This kind of indicator, whose values may range in $[-1,1]$ is more significant for indicating the correlation between predictions and user choices.

ID	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
291	0.800														
242	0.540	0.595													
188	0.644														
243	0.527														
268	0.453	0.641													
190	0.413														
269	0.872														
246	0.547	0.335	0.415	0.415	0.503										
247	0.514	0.630													
248	0.491	0.592	0.709												
271	0.649	0.559	0.585	0.584											
249	0.269	0.331	0.414												
250	0.402	0.564													
280	0.800														
177	0.439	0.487	0.487	0.475	0.511	0.511	0.508	0.575							
210	0.794	0.785	0.789	0.772	0.776	0.782	0.782								
252	0.630	0.717	0.726												
191	0.465	0.484	0.524	0.499	0.516	0.517	0.523	0.537	0.539	0.551					
285	0.642	0.675													
211	0.577	0.577													
230	0.166	0.417	0.660	0.726	0.779	0.802	0.767	0.794	0.802	0.812	0.820	0.826	0.830	0.835	
253	0.469	0.716	0.760	0.783	0.784	0.736	0.759	0.762	0.772	0.779	0.785	0.789	0.799	0.803	0.806
158	0.430	0.501	0.556	0.553	0.597	0.622	0.631								
179	0.279	0.367	0.527	0.540	0.540	0.556	0.599	0.619	0.619						
192	0.322	0.412	0.412	0.450											
182	0.604														
286	0.488														
255	0.225	0.339	0.574	0.600											
256	0.377	0.465	0.507												
232	0.543	0.638													
216	0.872														
194	0.514	0.626													
258	0.572	0.439													
259	0.448														
184	0.387	0.431													
198	0.533														
199	0.526	0.532	0.583	0.596											
185	0.494	0.631													
283	0.800														
261	0.494	0.624													
234	0.391	0.517													
186	0.411														
236	0.342														
263	0.574														
239	0.649	0.559	0.585	0.615											
202	0.499	0.503	0.593	0.645											
203	0.377	0.425	0.578												
264	0.330														
287	0.800														
265	0.495	0.547													
288	0.800														
289	0.800														
145	0.599	0.734	0.616												
301	0.000	0.295	0.384												
241	0.587	0.639													
187	0.372	0.381													



6 Scenario 1 - Furnishing online a domestic space

6.1 Initial considerations

In this scenario we try to better understand the needs of domestic customers related to the process of buying home and living products. Moreover, we will deep dive in the role that “online” and “offline” possibilities have in all the purchase process and we will try to better understand what kind of technologies could help in the online market.

For this reason we will have two different tools: an online test (individual analysis) and also 5 focus groups (groupal analysis)

6.2 Participants

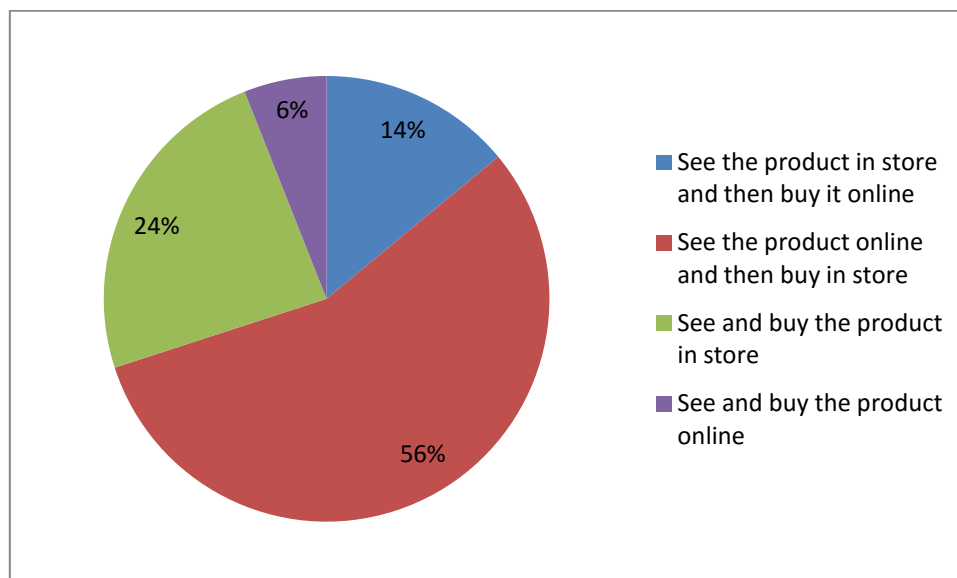
50 testers have participated in the scenario 1 by answering an online test with several questions related with their online shopping habits and the process of buying furniture and home and living pieces in general.

On top of that, 5 different focus groups have been conducted in order to deep dive in the habits and believes of people related to home and living online purchase and needs. All the focus group were conducted by one expert person (psychologist) and each of the focus groups had between 8-10 attendants.

6.3 Feedback analysis

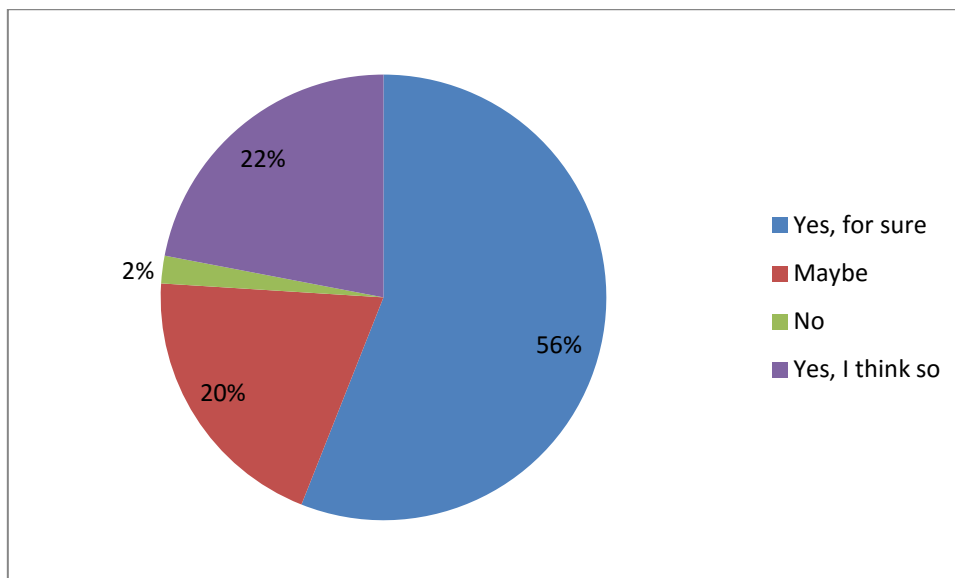
The following statistics show the indicators extracted from the interviews in the application scenario 1:

6.3.1 How do you prefer buying furniture?



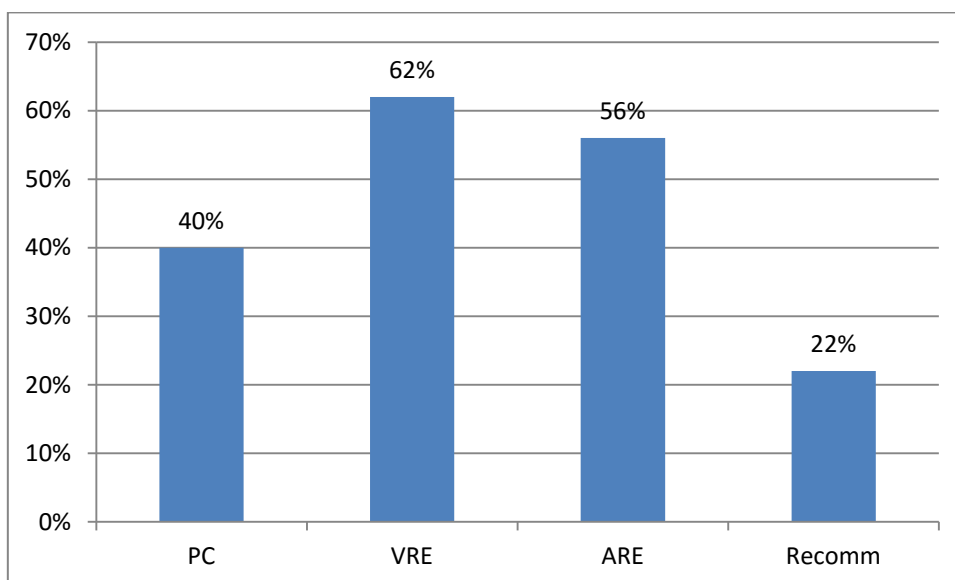
Even the polled usually buy using the online channel, most of them prefer to buy the furniture in the store.

6.3.2 In case you need buy furniture, would you use Internet before going to the shop?



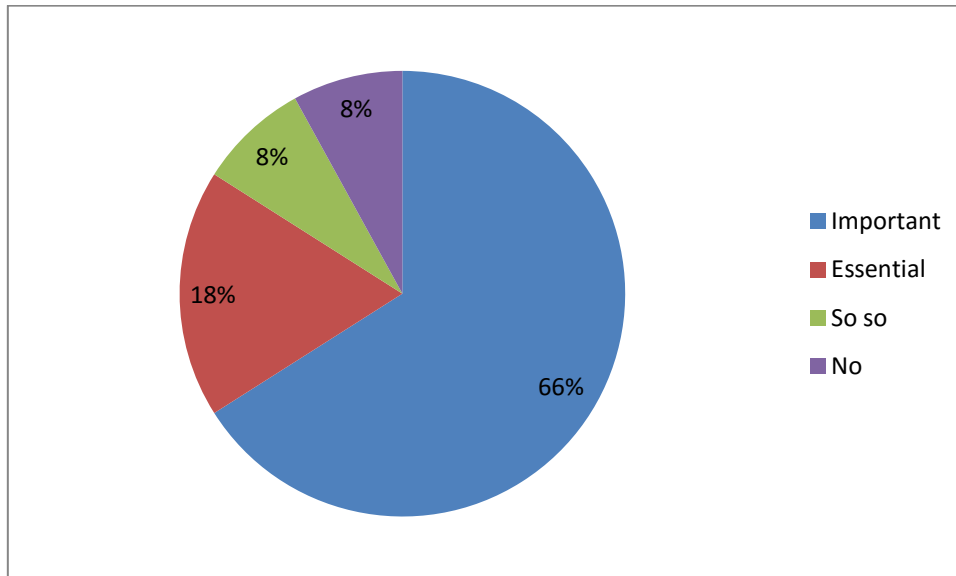
Almost 80% of the polled would use Internet before going to the shop (physical or on-line).

6.3.3 Which of the following features are useful for you?



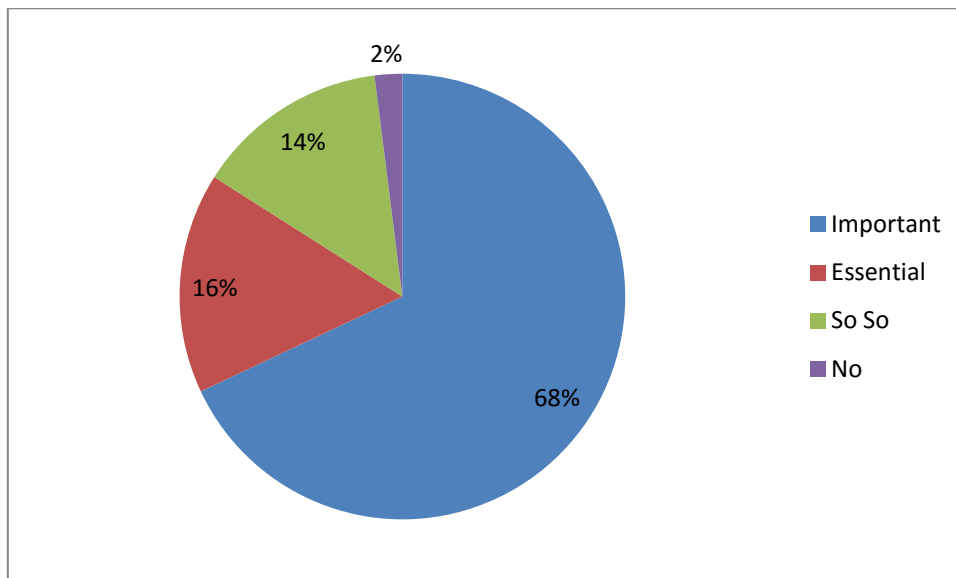
More than 50% of the testers answer that the Virtual Reality Environment (VRE) and Augmented Reality Environment (ARE) are useful.

6.3.4 Do you consider important visualizing the furniture in the Virtual Reality Environment for your purchasing process?



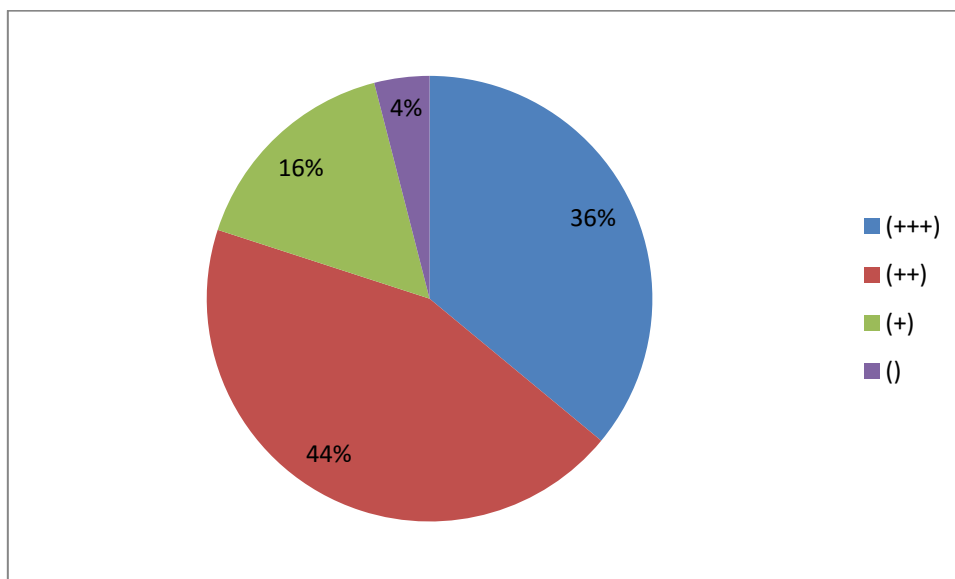
More than 80% considers “Essential” or “Important” to visualize the furniture in the Virtual Reality Environment.

6.3.5 Do you consider important visualizing the furniture in the Augmented Reality Environment for your purchasing process?



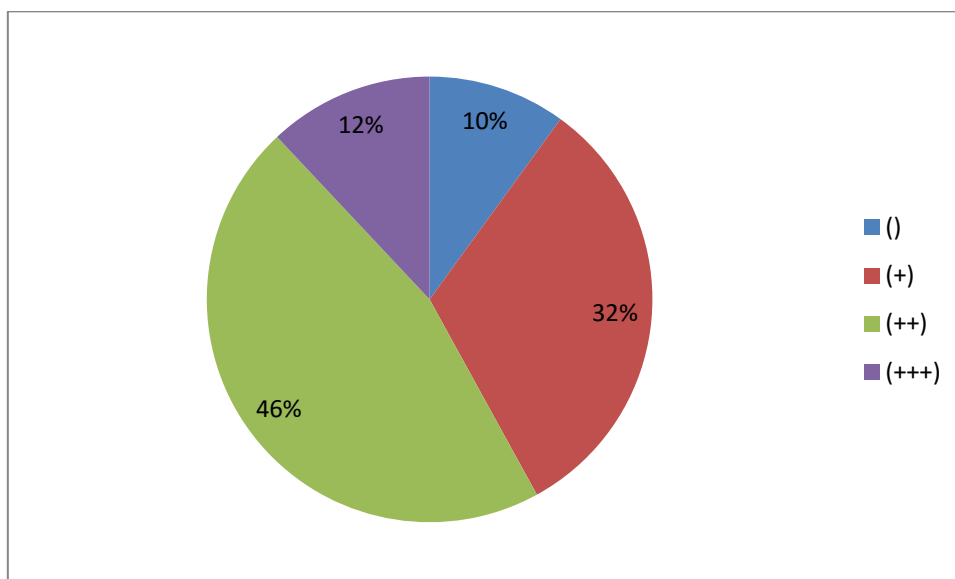
In the same line than the previous answer, more than 80% of the polled answer that visualize the furniture using the Augmented Reality App is “Essential” or “Important”.

6.3.6 How positive are these aspects of the FurnIT platform for you? [Visualizing lots of furniture combinations]



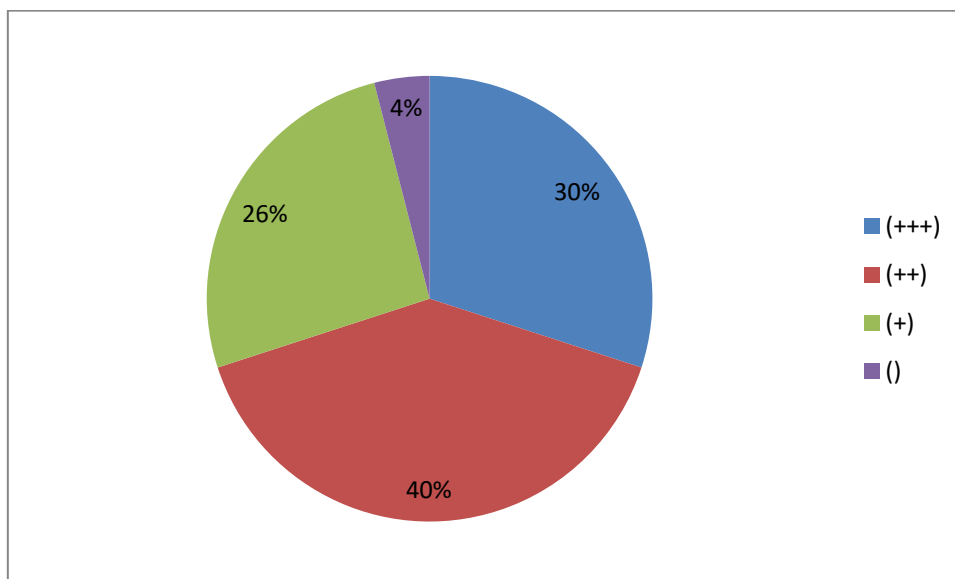
To 80% of the polled, to visualize lots of furniture combinations are positive [(+++ and ++)].

6.3.7 How positive are these aspects of the FurnIT platform for you? [Useful recommender that helps to take decisions]



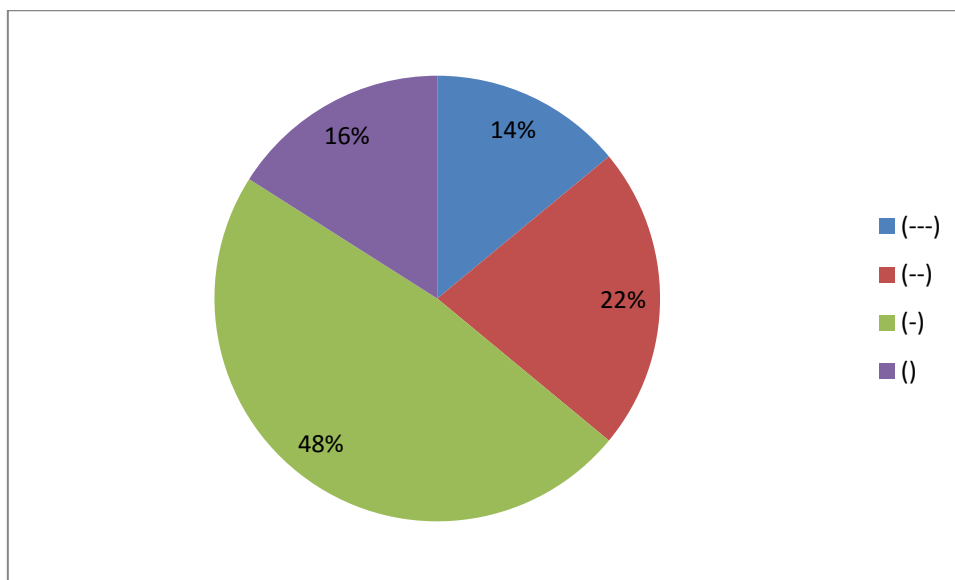
Almost 50% if the polled think that the recommender engine is useful to help making decisions [(+++ and ++)].

6.3.8 How positive are these aspects of the FurnIT platform for you? [Saving different furniture combinations in my personal area]



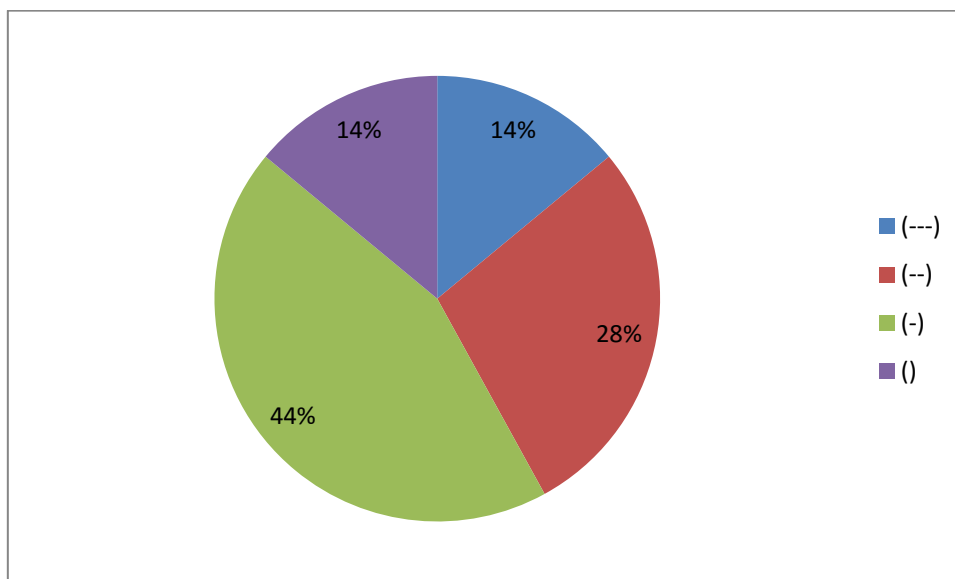
70% of the polled recognise that saving different furniture combinations in their personal area is a positive aspect [(+++ and (++)].

6.3.9 How negative are these aspects of the FurnIT platform for you? [Too Complex]



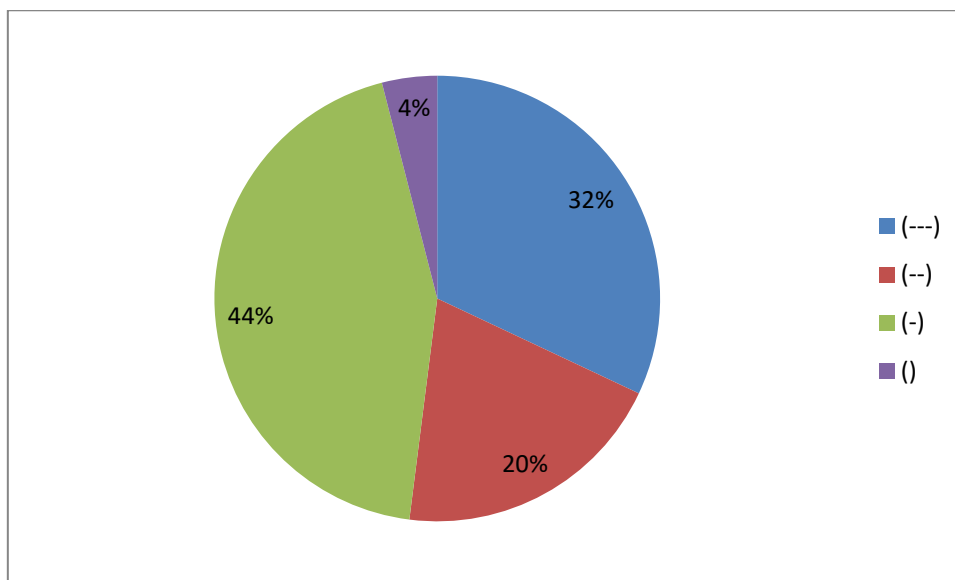
70% of the polled say that the platform is not too complex [() and (-)], but 14% chose the worst answer (---).

6.3.10 How negative are these aspects of the FurnIT platform for you? [Too many steps]



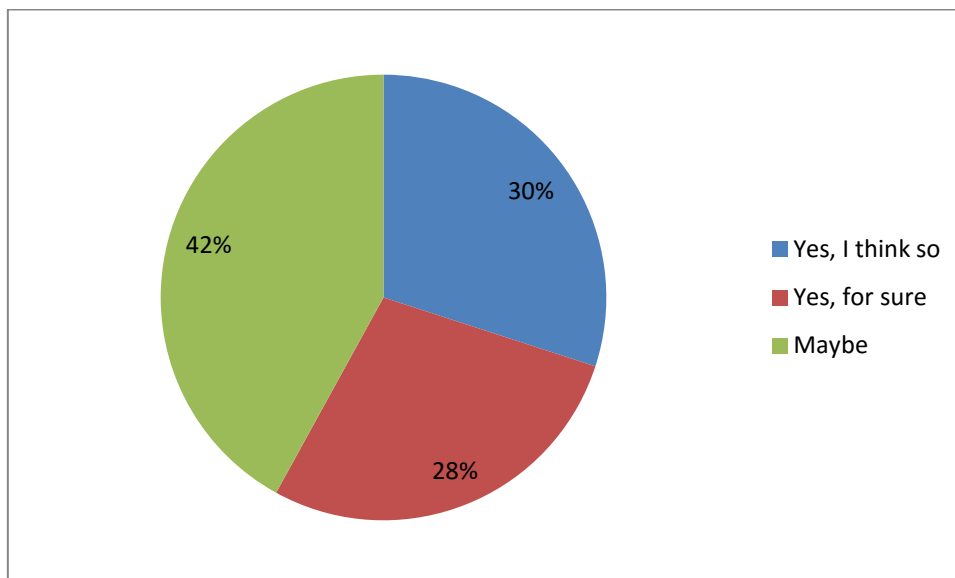
Almost 60% of the polled say that “too many steps” isn’t a negative aspect, but 14% of them chose the worst answer (---).

6.3.11 How negative are these aspects of the FurnIT platform for you? [Not much furniture pieces]



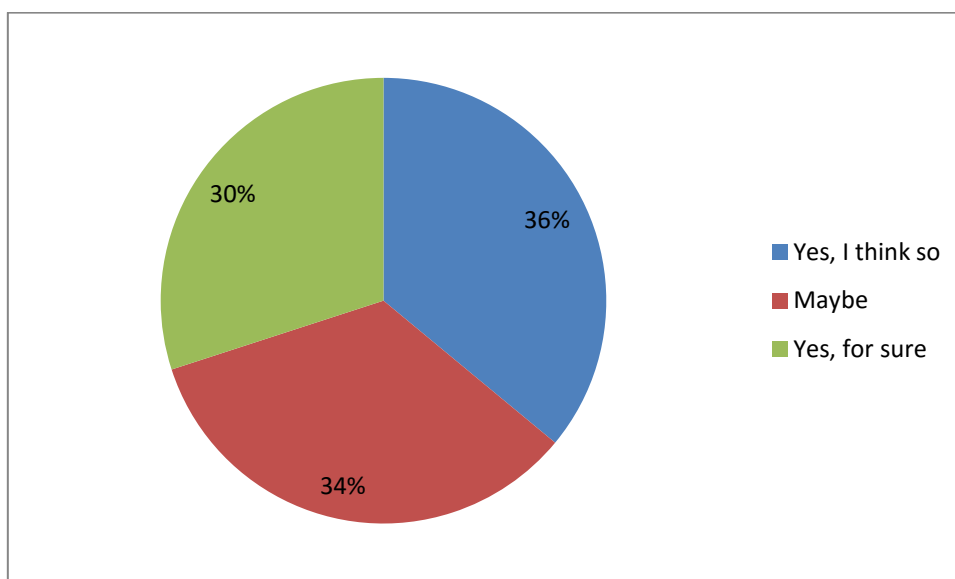
More than 50% of the survey respondents say that “*not much furniture pieces*” is a negative aspect [(---) and (--)], and 32% of the answers are the worst selection (---).

6.3.12 Would you use the FurnIT platform in the future?



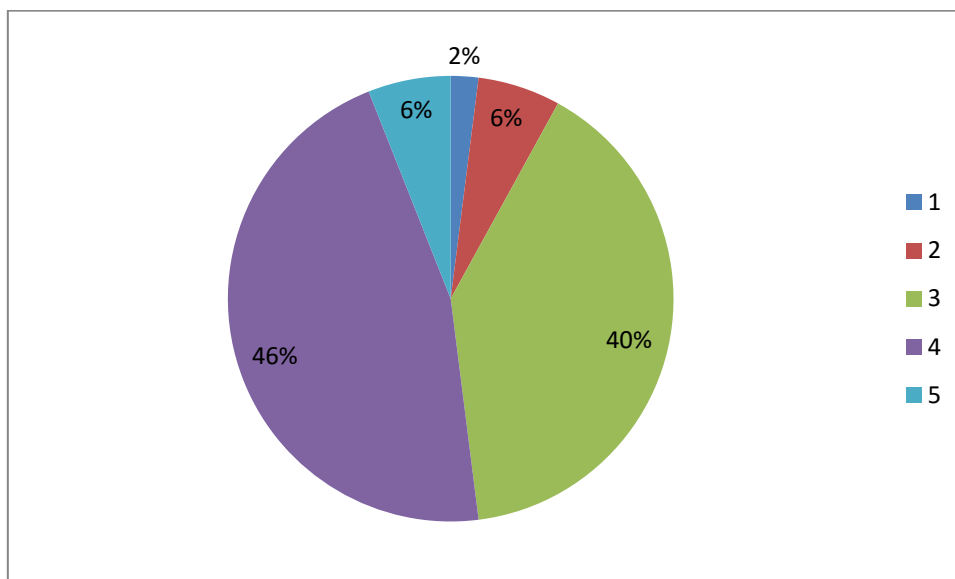
No negative answers, about using the platform in the future, and 42% of “*Maybe*”.

6.3.13 Would you recommend the FurnIT platform?



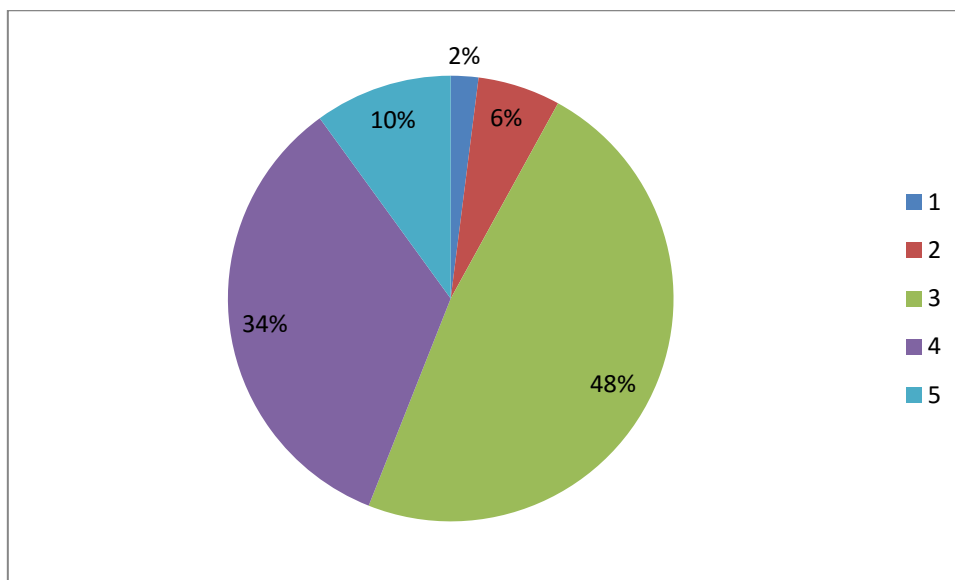
No negative answers, about recommending the platform, and 34% of “*Maybe*”.

6.3.14 On a scale of 1-5, how satisfied are you with the platform content organisation? (1- not satisfied, 5 - very satisfied)



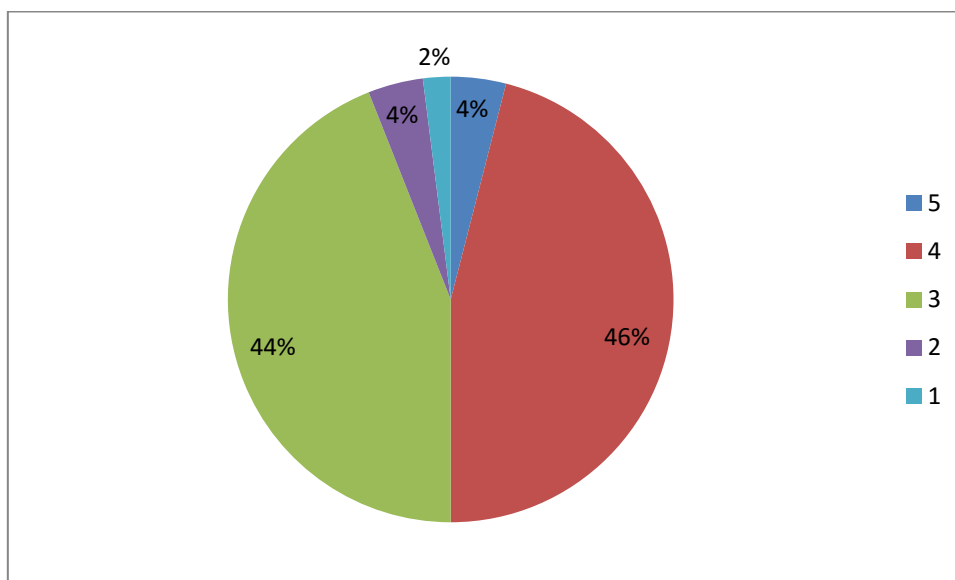
Taking the '3' value as neutral (40%), more than 50% of the polled are satisfied (values '4' and '5') with the content organisation, and only 8% unsatisfied (values '1' and '2').

6.3.15 On a scale of 1-5, how intuitive is the FurnIT platform content organisation? (1- not intuitive, 5- very intuitive)



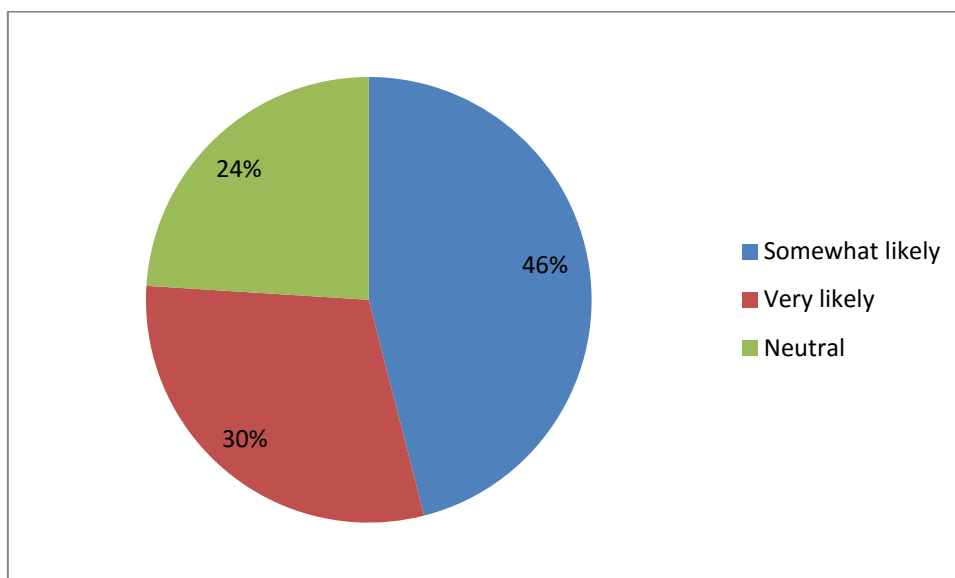
Taking the '3' value as neutral (48%), almost 45% are satisfied (values '4' and '5') about how intuitive is the content, and only 8% unsatisfied (values '1' and '2').

6.3.16 On a scale of 1-5, assess your user experience (1 - very bad, 5 - very good)



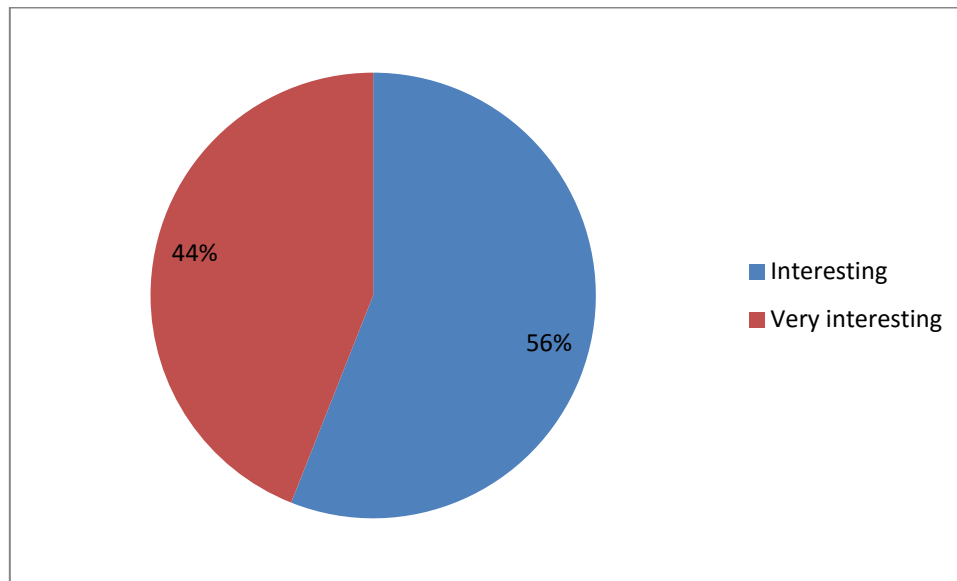
Taking the '3' value as neutral (44%), 50% are satisfied (values '4' and '5') with their user experience, and only 6% unsatisfied (values '1' and '2').

6.3.17 How likely is it that your satisfaction will improve thanks to using FurnIT?



More than 75% of the polled said that their satisfaction will improve thanks to using the FurnIT-SAVER platform.

6.3.18 What is your general opinion of the FurnIT platform?



No negative answers, about the general opinion of the platform and all the polled said that is interesting and very interesting.

As a general conclusion of the survey, it seems that the developments done in the project seem interesting for the polled people in the scenario 1.

6.4 Comments

This section shows the comments collected in the scenario 1.

6.4.1 Best of the FurnIT-SAVER project

Most of the polled said that the best of the FurnIT project is:

- to see/visualize the furniture
- to see/visualize the furniture at home
- see/customize the combination of elements
- check the sizes... ...before buy it
- Helpful tool for buying products
- Commodity
- Easy to use
- Quick/fast
- Flexibility
- Innovative experience
- The concept
- Virtual and reality integration in the same sequence
- Recommendations

6.4.2 Worst of the FurnIT-SAVER project

Summary of what polled said:

- Not many products available
- It's not user friendly
- Not possible to measure the type of light in the room
- The time that you need to create the layout/It is somehow complex to define the rooms/The amount of time that needs to be invested on it
- learn to create the environment/Difficult to use
- Slow
- Augmented reality not very realistic
- To have to place the printed paper...
- Complexity
- The vision is like an eye in the sky, not how a human would see it
- If you only want to buy only one decorative product, you have to waste more time just for one product
- You can't see your home
- Some functional problems in the website
- there are better solutions on the market - virtual walk through the furnished spaces, as you were there (more than 3D). opis:
<http://www.consumerreports.org/kitchen/virtual-reality-can-eliminate-remodeling-mistakes-before-they-happen>

6.4.3 Suggestions of the polled people

- It would be interesting to involve social media buttons to share the experience
- Keep pushing. The idea is good.
- Translate the platform to other languages
- Interesting but should be improved
- Good idea but the user experience should be improved
- Make the furniture more realistic
- User interface should be improved. Numpad can't be used to change layout dimensions. Items search box is not visible when using a laptop (one must scroll to see it)
- It could be interesting to be able to model the room using the smartphone, making an app detect the walls, windows, and so on. Or at least, get a first approach. This would drastically reduce the steps to obtain realistic results

6.5 Focus Groups

In addition, WWING complemented the validation activities for scenario 1 with several focus groups.

6.5.1 Digital Customers that buy home and living – FOCUS GROUP

The following comments and suggestions are extracted from this focus group:

- Shopping habits.
The key points for this target are the “research” and the “comparison”. They usually search on Google, deco magazines, blogs or prize comparison webs in order to find the best price for each furniture. They think that the best of the online buying process is to be able to see a lot of products in a fast way (time has a high value for them and online helps a lot in that sense). On the other hand, the negative side is that they have to imagine how the furniture or deco will look like in their home. Another inconvenient of buying home and living online is that it is impossible to see the proportion of the deco piece on the space and also the no possibility of touching the furniture in order to do a quality check: to touch de furniture, to test the “movements” of the furniture (drawers, wheels etc.),that helps to know the real value.
- Top of mind of apps
Westwing, Mimub, Privalia (deco), IKEA and Zara home. They remember and use deco apps in order to buy home and living products and also use apps of platforms like Wallapop, Segundamano or Amazon in order to buy cheaper and faster.
The key point is that they are using only “shopping apps”, this is interesting because currently, nobody has on his mobile or tablet an app to just “design” in order to see how the furniture will look like in the space or to be able to think a deco project.
- Furn-it test (web)
(Note: During the demo 2 users couldn’t do the demo because there were technical problems on the platform. We think that the reason is that at the moment of doing the test all the users had the same conditions of Wifi and PC).
People conclude that it is great. The technology surprised them, but at the same time they needed help to use the Furn-IT web on each step. It is for us an indicator that this design is not user- friendly and we need to include some video tutorials, itinerary of steps or FAQs.
- Understanding
They understand perfectly the project and they were able to imagine the first step and the last step without the demo in order to share their feedback.
- Positive aspects

People agreed that Furn-IT is a good solution to see the products on an empty space. They like the 3 technologies.

- Negative aspects

For them, this App is not user friendly. They will prefer to have an “animation” of all the products in order to check how they look like in the space but also what the technical possibilities of the furniture are. They want to be able to see the space like “users” in state of the possibility of visualization that currently offers the platform.

They would also like to choose the colours of the wall and to see the pieces with different lights (morning, afternoon, night). Light was a critical point; one user said that it would be really helpful to see how is the light that is produced by a lamp in order to compare lamps for example.

On top of that, they want to be able to export with the layout not only the walls, doors and windows, but also the existing deco in order to see on 3D how the combination between the deco of the space and the “new” deco is.

- Furn-it’s target

They consider that the perfect target will be: young people, tech people and also people who are starting a new home or deco project.

6.5.2 Digital customers that do not buy home and living – FOCUS GROUP

- Shopping habits

The way the shop is: First, they search for printed catalogues (for example; Ikea) or magazines. Second, they search online, the price, style criteria and other information. Finally they prefer to buy in a traditional shop in order to see and check the “real” dimensions of the piece, touch the furniture and feel the material. Moreover, they prefer to go to a traditional shop because they have the opportunity to get expert opinion.

They prefer to buy home and living in a traditional way because they feel more secure about all the shopping process.

- Top of mind of apps

Privalia, Westwing and IKEA. As the title profile explains they are not interested to buy home and living online, so they don’t really know much about this world.

- Furn-it test (web)

The conclusions are that it is really interesting but also difficult because they think that the design of the app is not user friendly and their suggestion is to make a previous tutorial.

- Understanding

They totally understand the 3 techs involved and the reason why of Furn-IT.

- Positive aspects

They think that is a great tool to start and design deco projects from 0. They like the 3D models.

- Negative aspects

They want more. They want a user friendly structure. For example they did not like that to register on Furn-IT you have to scroll down. They want to see the combination of the new deco with the deco that they have on their homes in order to be able to see how the combination will look like. The recommender doesn't work well because the products showed are not a lot (few possibilities). They want to be able for example to choose not only the floor but also the colours of the walls.

- Furn-it's target

They consider that the perfect target will be: young people, tech people and also people who are starting a new home or deco project. They think that this app is not the key instrument in order to convert a digital customer into digital customer of home and living. The reason is that they are convinced that what really matters is the entire shopping process (including touching the piece) and customer care information and not only how a furniture looks like in a specific space.

6.5.3 Traditional Customers that do not buy online – FOCUS GROUP

- Shopping habits

They are shopping lovers. They like to go shopping and get surprised by new trends and arrivals and they like to do it in the "real world", traditional stores. They use sometimes Pinterest but just to get a beautiful inspiration. They definitely prefer to buy on traditional stores. Why? They explain two different reasons: 1. Because they don't want to wait long time until receiving the furniture. 2. They are afraid about the possible return process that could involve an online shopping of home and living.

- Top of mind of apps

Westwing, Privalia, IKEA and Wallapop. They don't really know about this because they don't buy online and they logically don't care.

- Furn-it test (web)

They really enjoy the test. For them it was an incredible experience but also difficult.

- Understanding

They understand the Furn-IT mission but as long as they are not tech people, they are not able to explain exactly what Furn-IT consist on.

- Positive aspects

They think that is really important in order to make the digital experience of buying home and living more fun.

- Negative aspects
They need a tutorial to use it. In each micro step they needed help.
- Furn-it's target
They consider them like as potential target. Also they mentioned tech people or people that are going to live in a new home

6.5.4 IT, Marketing and communication – Panel of experts

- Shopping habits
They all agreed that there are 3 critical steps when users buy home and living: the research (Google, blogs and magazines), the comparison (pricing webs, flash sales and second hand webs) and the shopping process and experience (logistics and customer services).
They also think that the key points involved in a online shopping process of deco or furniture are: dimensions (customer needs), style and of course price. Sometimes the brand reputation is also a key point.
- Top of mind of apps
On this step we can see that they are really experts, as they know an entire list of apps: IKEA, Privalia, Amazon, Wallapop etc. They know very well that the app use is growing very fast and they agreed it is a key point on the shopping process of home and living. They are also a little bit critical with these apps because are just to buy and in rare cases they allow the consumers to do more things related to the experience of buying furniture.
- Furn-it test (web)
The demo was criticized in each step and detail because they were thinking like a final user.
- Understanding
They understand perfectly the 3 techs involved and the Furn-IT project but also they were critical because for them, there are a lot of new tech and dispositive involved and in some cases it would be a problem depending on the user's level of tech knowledge.
- Positive aspects
The love the new idea and the hybrid of the 3 tech.
- Negative aspects
They founded that it is not user friendly, there are a lot of technical problems. Their suggestion was to include some kind of explanation before to start but not only about the Furn-IT in general (that exists) but also to explain how it works in each step and functions. In general they want to be able to see the final result in 3D including the pre-existent deco.
They want in general more perfection and a more easy design.

- **Furn-it's target**
They consider that the perfect target will be: young people, tech people and also people who are starting a new home or deco project. They are sure that this app is not the key instrument in order to convert digital customer on digital customer of home and living. The reason for this is that they think that what really matters is the entire shopping process and customer care and not only how furniture looks like in a specific space.

6.5.5 Products and customers of home and living – Panel of experts

- **Shopping habits**
They explain that during the decision process there are emotional factors (style, brand reputation...) and logical factors (dimensions and price).
Comparing the online vs the offline shopping process of home and living they found that during the online process the customers save time in the first part (decision and purchase) but they have to wait to get the order. On the other hand, the offline process is exactly the opposite; during the shopping the people spent a lot of time to be able to see all the traditional stores or just spending one full day at IKEA but at the end they can go home with the new product.
- **Top of mind of apps**
Westwing, Mimub, Houzz, Privalia, IKEA (shipping for Baleares), Show room privé, Segundamano, Wallapop, El Corte Inglés... they know a lot of apps and on each detail.
- **Furn-it test (web)**
They love this new tech but during the demo they asked about other technical considerations like how to upload the 3D models or how to make a purchase.
- **Understanding**
They understand the project and the 3 techs involved.
- **Positive aspects**
They all agree that is important for the online model business of home and living.
- **Negative aspects**
They were more critical with the web part, for them, it is not user friendly and they would like to include more possibilities to personalize the space like: the colour of the walls, a more relevant recommendation system, the possibility to visualize all with the users point of view, the option to see how the new deco with the old one combines.
- **Furn-it's target**
They think that the Furn-IT is appropriate for young people, tech people and also people who are starting a new home or deco project.

6.5.6 Focus Group conclusions

- Shopping habits

The online shopping of home and living is based on 3 key steps: search, compare and buy. Thank to internet these steps are easy and fast. On top of that we can conclude that when people start buying online the category home and living, they start by buying deco (not very expensive) and later they start with more relevant furniture like a bed or sofa.

During the decision process of choosing the piece of furniture, the key factors are: price, style, dimension and shipping costs. Some other factors are also influencing the decision: customer service, the brand reputation and the returns conditions.
- Top of mind of apps

Each target mentioned different app names. We can simplify the market of apps into two categories: apps of brands that sell only home and living (Mimub, Westwing and IKEA) and apps of brands that sell also other categories (Privalia, El corte Inglés, Amazon). In addition, we have the P2P webs like Segundamano, Ebay or Wallapop.

A very important point to explain and very positive for this Furn-IT the project is that all the top mind apps are related with sales but do not include the services that Furn-IT will have.
- Furn-it test (web)

In general it was good (only 2 cases with technical problems) but there is a need to reinforce the information about each step of the process and the tool explanation in general in order to explain more in detail everything to the customer.
- Understanding

Expert people understand easier the Furn-IT project and are able to resume and explain the technologies involved. What is good is that not expert people (regular customers) also understand the idea, but on the other hand, most of them could not cases explain in details the 3 techs involved.
- Positive aspects

All the people agreed that is a really interesting project to make the online shopping experience more fun and secure.
- Negative aspects

In general, people asked for more possibilities available in terms of design, resolution, possibilities to personalize the space and user friendly application.
- Furn-it's target

Digital customers.

Professionals like: interiorists, architects...
Traditional customers of home and living

6.6 Conclusions

A huge majority of domestic customers use Internet before buying any furniture. They search for information, prices, other options, inspiration..., but at the same time, they prefer to do the final purchase in traditional stores (not online). This is why they need to “touch” the product in order to get a proper feeling of the quality of the materials and visualize the proportion of all the dimensions in a specific space.

Interviewed people also agreed that FurnIT technologies will help a lot in order to better visualize a product in the final location. Moreover, they like the platform and they declare they will use it in the future and they will recommend it. Of course, there are some needs of further development of the application, mainly related to user-friendly use.

Taking into account the previous issues, we can say that FurnIT platform is a useful tool and will cover a real need in the market (people uses Internet but needs more development in order to better visualize the furniture). This is why people like the platform and agree that will continue using it.

On top of that we can think that all these new features will help to develop the online market of home and living because FurnIT really offers technologies that will help people to have more information (and better visualization) when searching online. We expect that the developments offered by the project help and encourage people to finish the purchase also online.

7 Scenario 2 - Furnishing a domestic space with the support of a retail shop

7.1 Initial considerations

7.1.1 Salesperson collaboration

The collaboration of the furniture shop salespersons in the tests was very difficult due to the following reasons:

- The furniture shop owners pay the salespersons salary and, obviously, they don't want that the salespersons spend time in the FurnIT-SAVER project instead of working for them.
- The priority for the salespersons are the clients who enter into the furniture shop. Then, in case that they were doing one test, they should have to stop it and take care of their clients.
- Their main focus is to sell furniture and they have things to do.
- They could help the FurnIT-SAVER consortium in doing few tests, but not with a lot of them (50, for example).

7.1.2 Furniture shop implication

Even though CENFIM agreed with one furniture shop in Girona area to do the tests there, at the end the owner prefers not to collaborate in the tests and we had to look for another option.

Taking into account that the city of la Sénia (where CENFIM is located) is one of the most important furniture sales area of Catalonia (Spain), we have decided to do the tests there. The involved retail company was Mobles Estellé (<http://www.moblesestelle.com/>)

It is very important to highlight that before the crisis, la Sénia city (with around 5.000 citizens only) had more than 50.000 m² of furniture shops and had more than 50 furniture manufacturers (SMEs). Now, these numbers are less, but it is still the most important furniture manufacturer cluster of Catalonia.

7.1.3 Do not interfere with the furniture shop

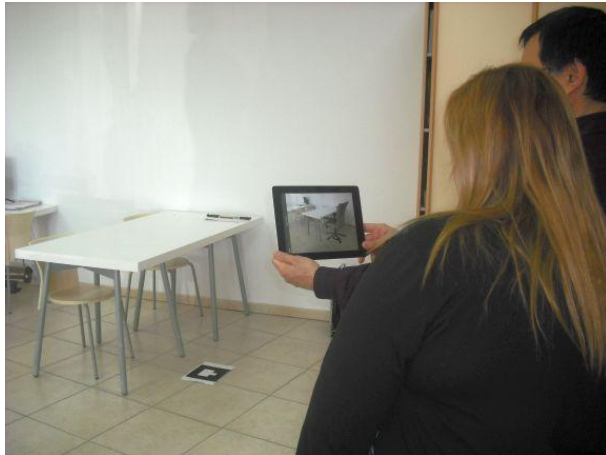
It was very important that the FurnIT-SAVER project tests do not interfere with the sales process at the furniture shop. For this reason, CENFIM agreed that we couldn't try to convince the potential testers (furniture purchasers) once they have finished in the shop, independently if they have purchased furniture or not, and they are going to leave the shop.

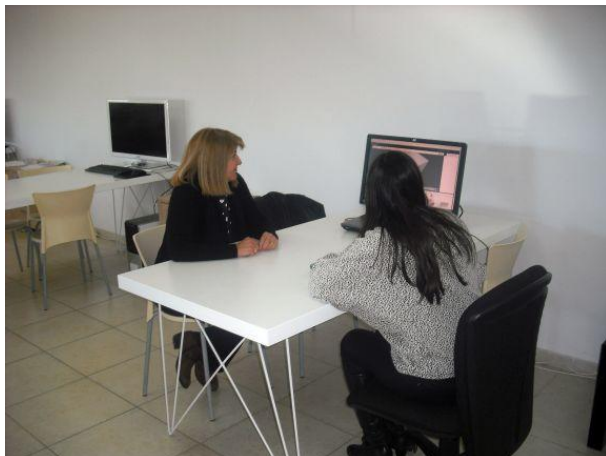
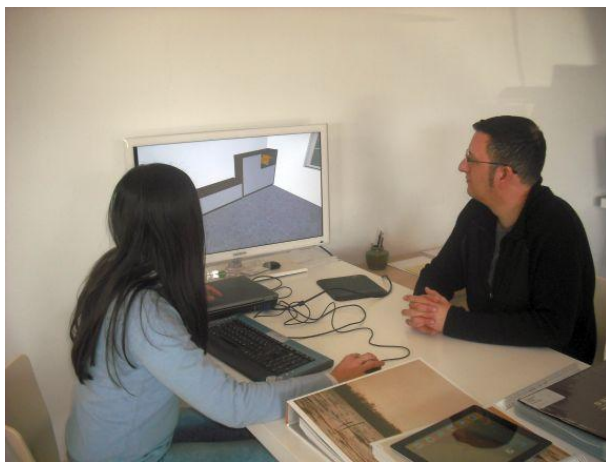
7.1.4 Putting the testers in context

It was essential to explain the testers that the tools we were using are **prototypes and not commercial products**, with a reduced number of styles, manufacturers and furniture pieces/models.

7.2 Participants

At the end, 59 testers were interviewed.



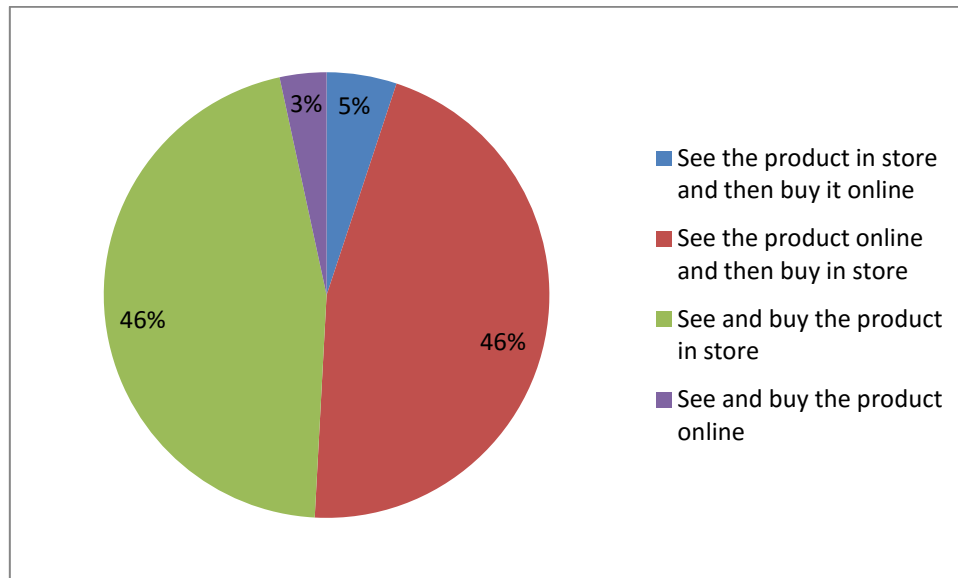




7.3 Feedback analysis

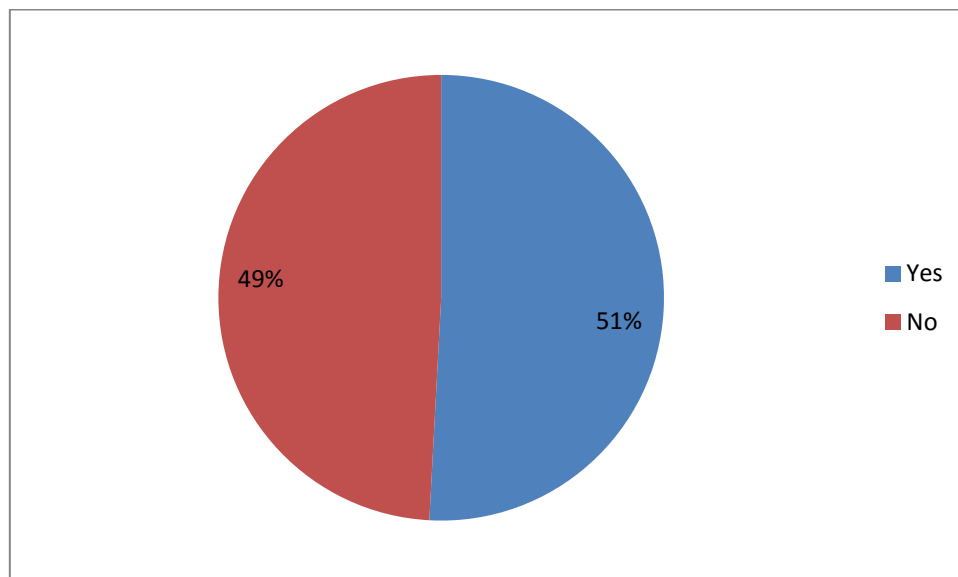
The following statistics show the indicators extracted from the interviews with the domestic customers in the application scenario 2:

7.3.1 How do you prefer buying furniture?



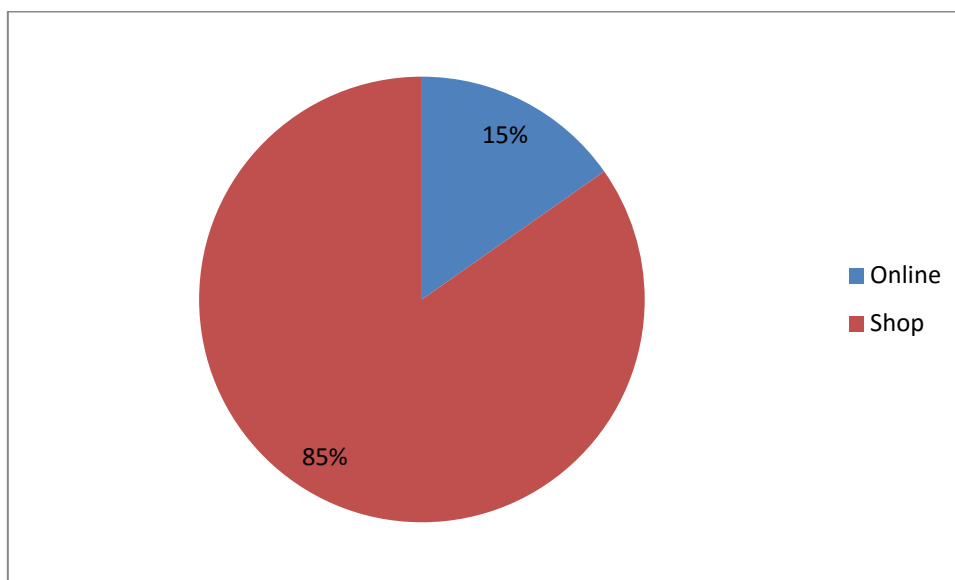
More than 90% of the testers said that they prefer buying furniture in store.

7.3.2 Last time you bought furniture, did you use the Internet to look for furniture?



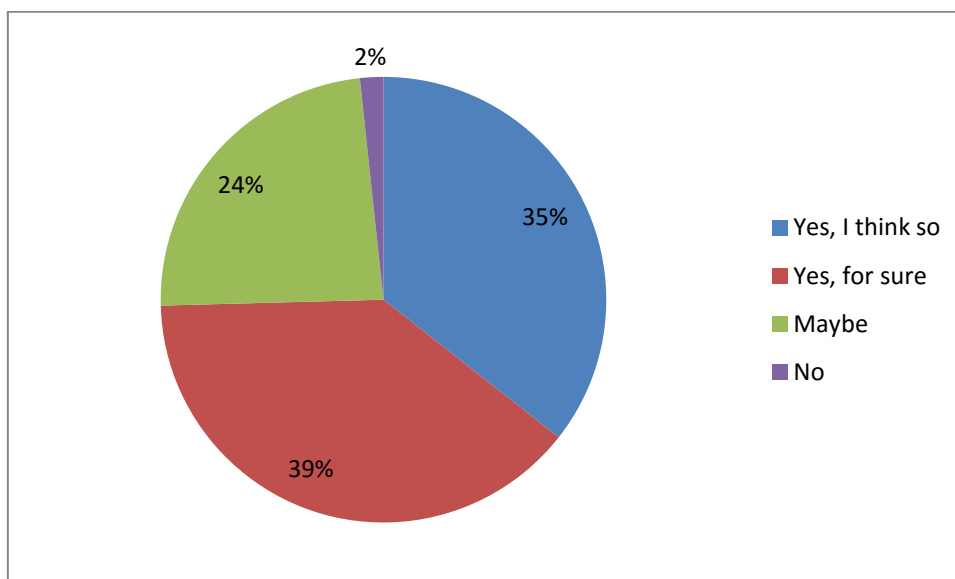
These results could seem strange, but most of the people bought furniture some years ago, and Internet was not spread as “normal tool” yet.

7.3.3 Last time you bought furniture, where was it?



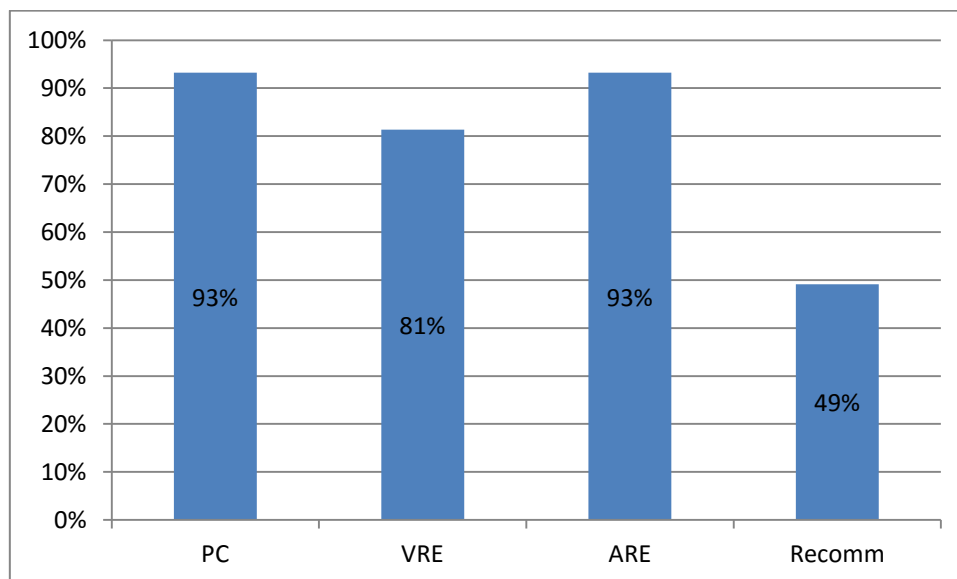
Most of the people bought the furniture at the furniture shop, but a considerable percentage did it online.

7.3.4 In case you need to buy furniture, would you use Internet before going to the shop?



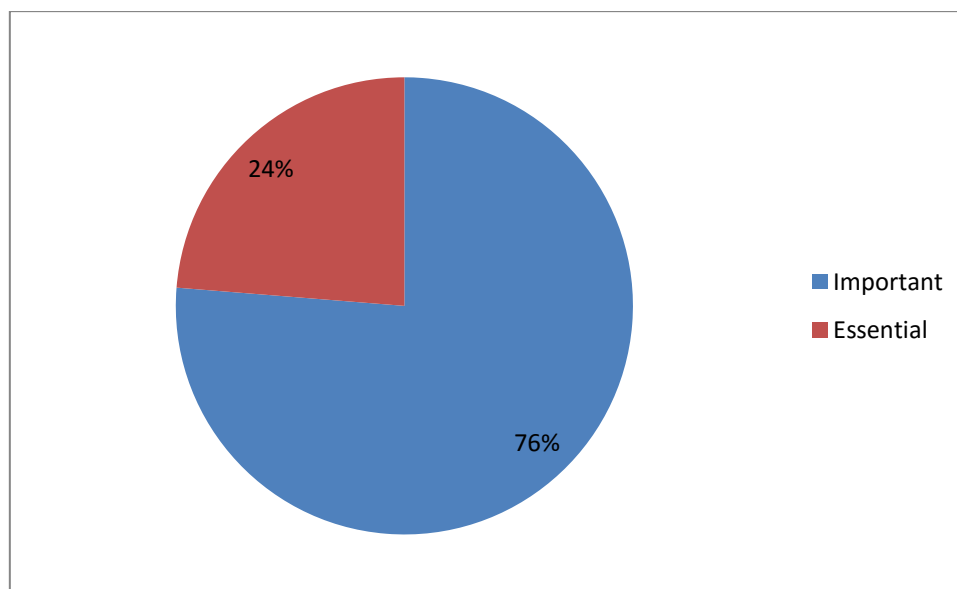
Almost 75% of the testers said that they would use Internet before going to the shop, in case they need to buy furniture.

7.3.5 Which of the following features are useful for you? (you can select more than one)



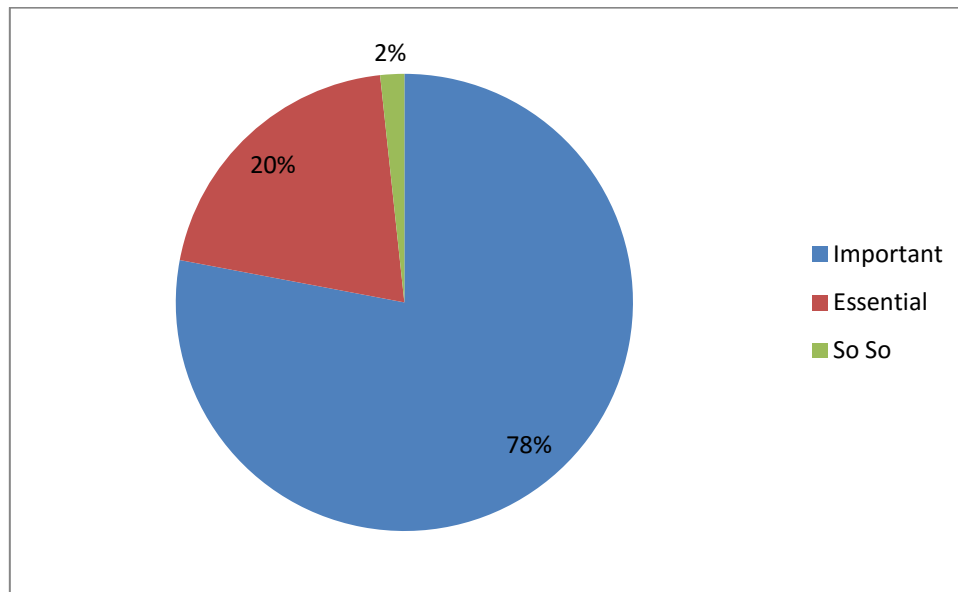
More than 90% of the polled, think that the layout definition in the PC environment and the Augmented Reality Environment (ARE) are useful for them. More than 80% think that the Virtual Reality Environment (VRE) are useful as well. Finally, almost 50% think that the recommender engine is also useful.

7.3.6 Do you consider important visualizing the furniture in the Virtual Reality Environment for your purchasing process?



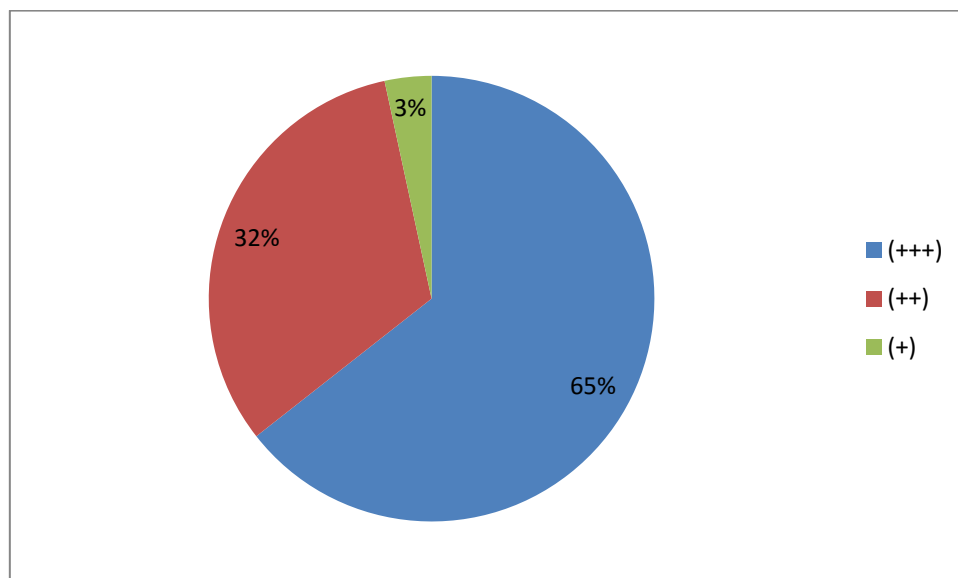
All the testers answered the positive answers “Important” or “Essential”. Nobody choose the options “So so” and “No”.

7.3.7 Do you consider important visualizing the furniture in the Augmented Reality application for your purchasing process?



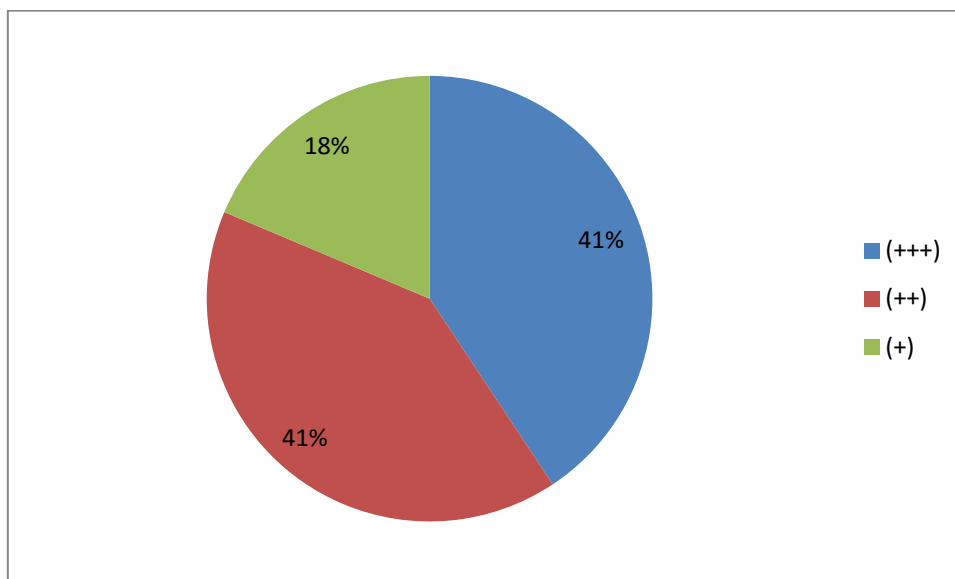
In the same line than the previous question, most of the people answered “*Important*” and “*Essential*”. Nobody choose “*No*” option and only one tester chose “*So so*”.

7.3.8 How positive are these aspects of the FurnIT platform for you? [Visualizing lots of furniture combinations]



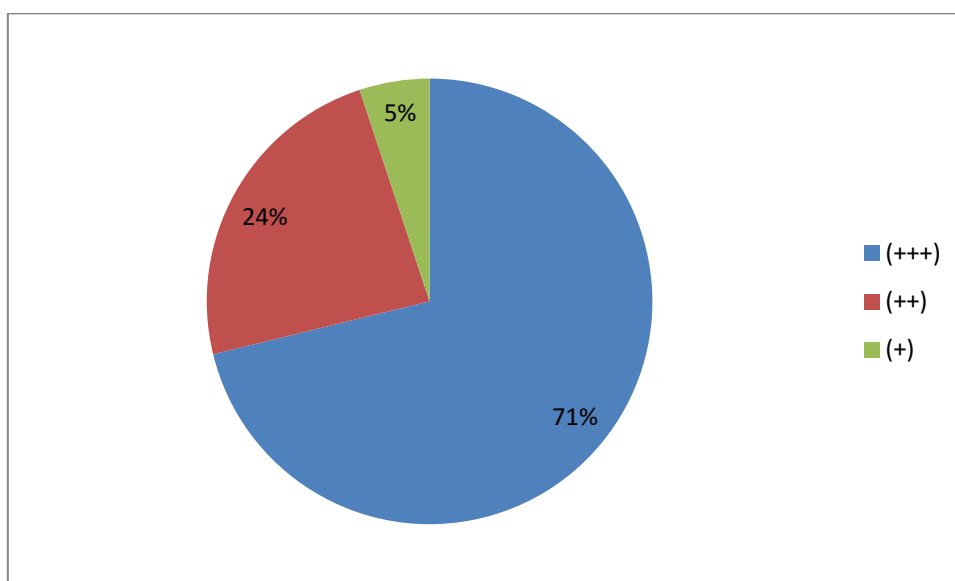
Almost 100% think that visualising lots of furniture combinations is a positive aspect, taking into account that (+++) and (++) are the 2 most positives and (+) and () are the less positives.

7.3.9 How positive are these aspects of the FurnIT platform for you? [Useful recommender that helps to take decisions]



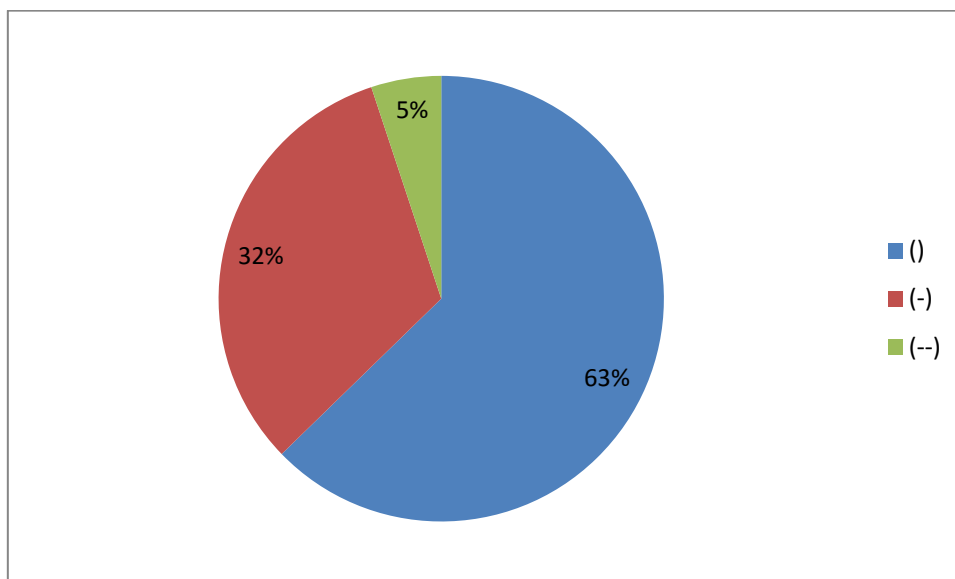
More than 80% think that the recommender engine is a good tool for making decisions.

7.3.10 How positive are these aspects of the FurnIT platform for you? [Saving different furniture combinations in my personal area]



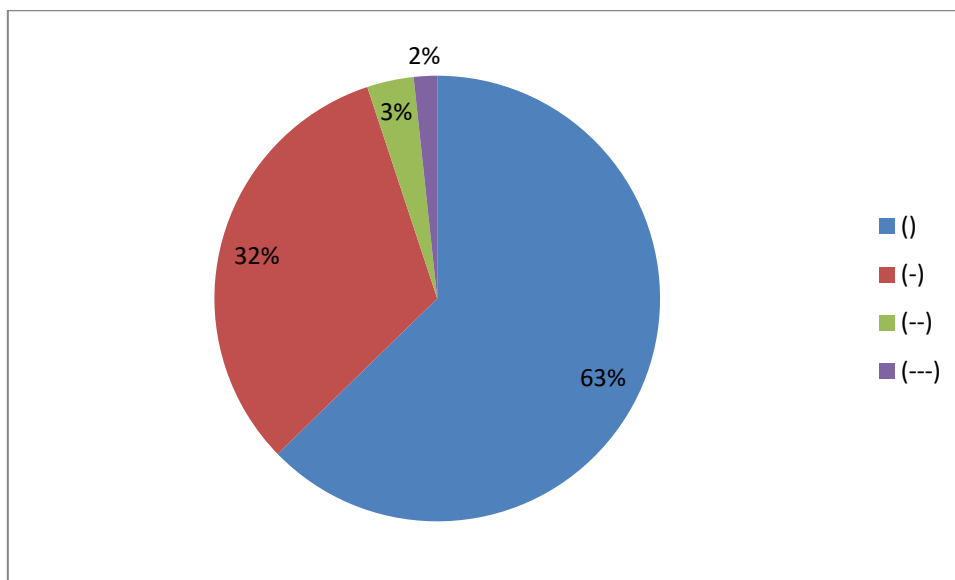
More than 70% of the polled said that saving different furniture combinations in their personal area is a positive aspect with the best selection (+++).

7.3.11 How negative are these aspects of the FurnIT platform for you? [Too Complex]



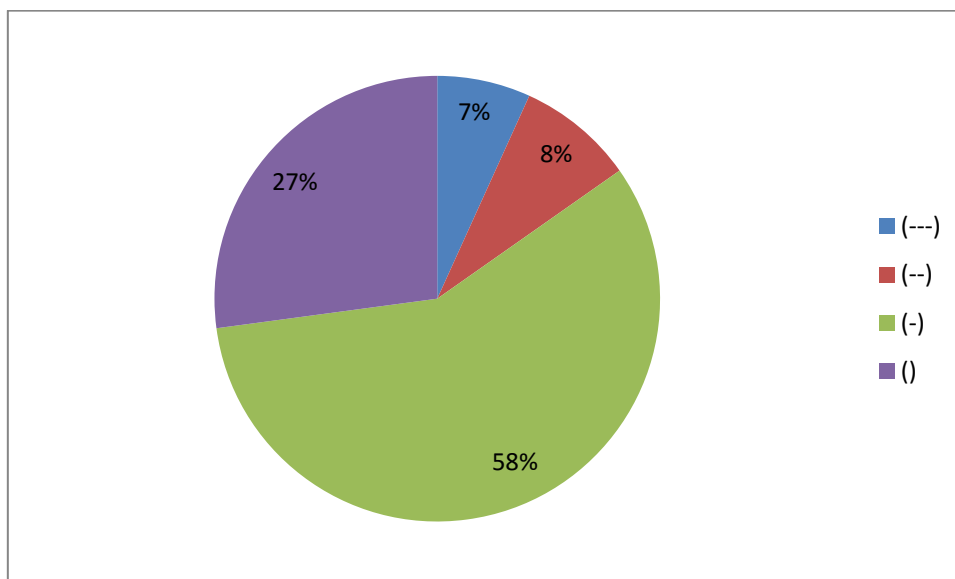
More than 60% of the polled people selected that the complexity is not a negative aspect [()] and 95% selected the less negative options [()] and (-)].

7.3.12 How negative are these aspects of the FurnIT platform for you? [Too many steps]



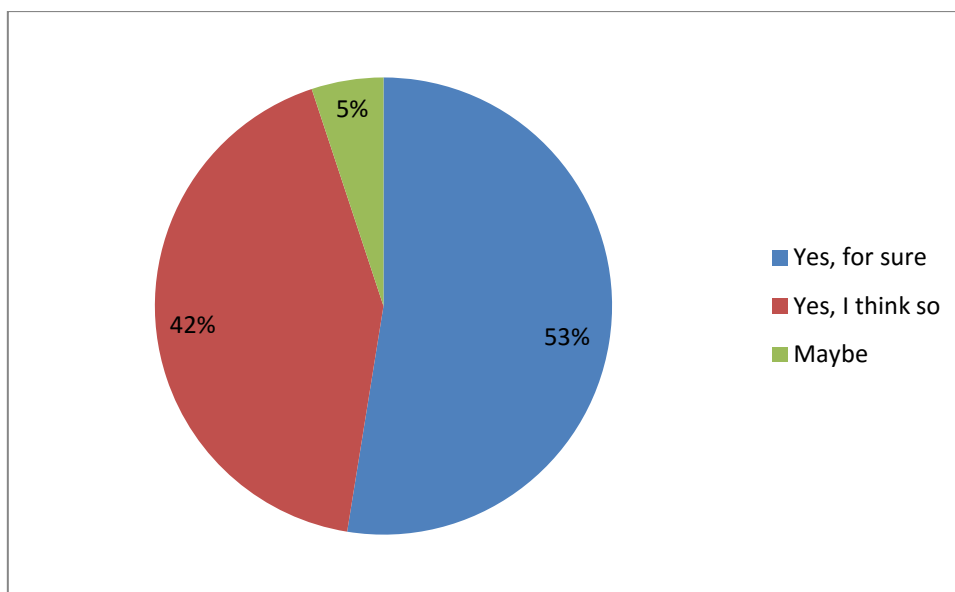
More than 60% of the polled people selected that "*too many steps*" is not a negative aspect [()] and 95% selected the less negative options [()] and (-)].

7.3.13 How negative are these aspects of the FurnIT platform for you? [Not much furniture pieces]



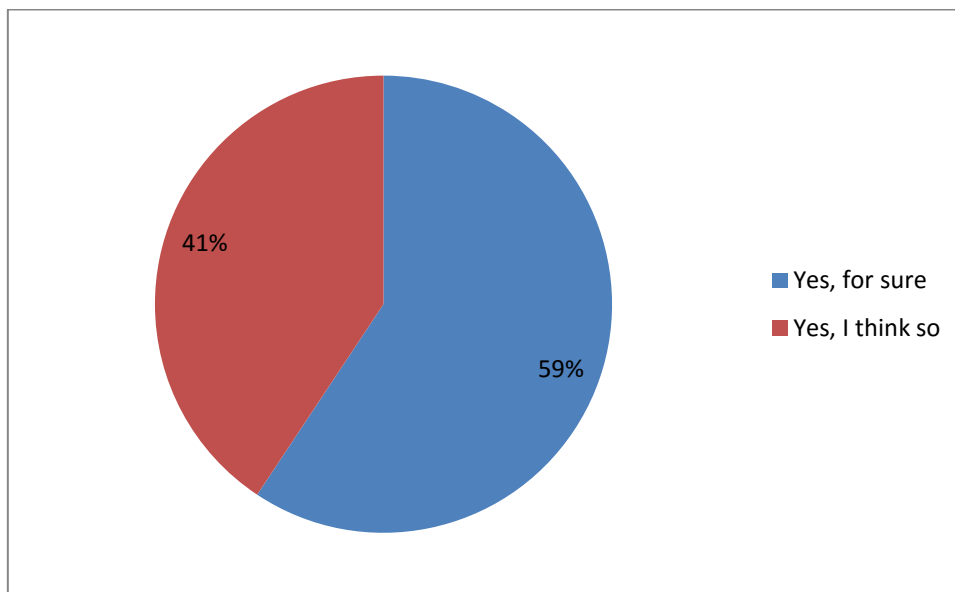
85% of the polled people selected that “*not much furniture pieces*” is not a negative aspect [() and (-)].

7.3.14 Would you use the FurnIT platform in the future?



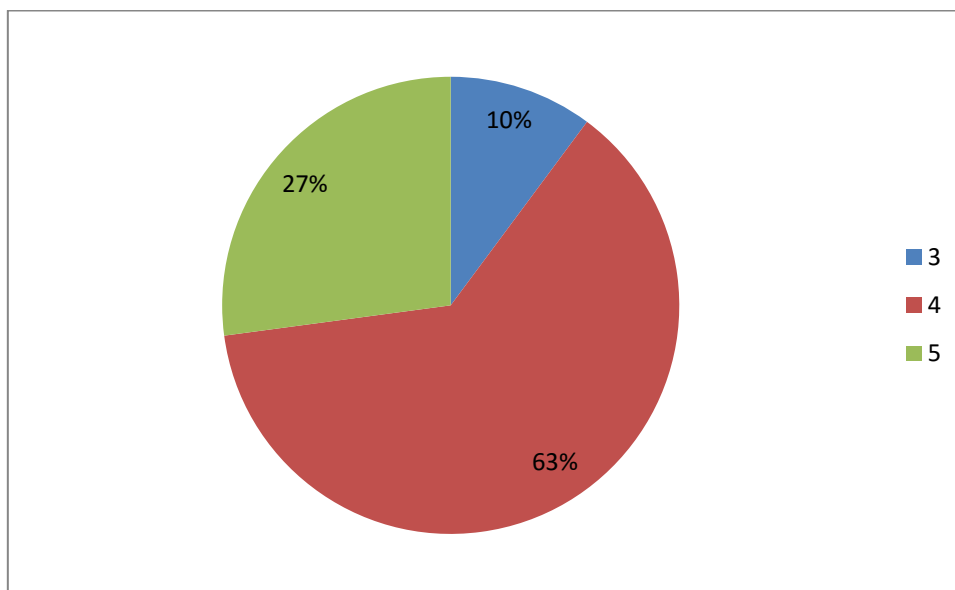
More than 90% have chosen the option “Yes”.

7.3.15 Would you recommend the FurnIT platform?



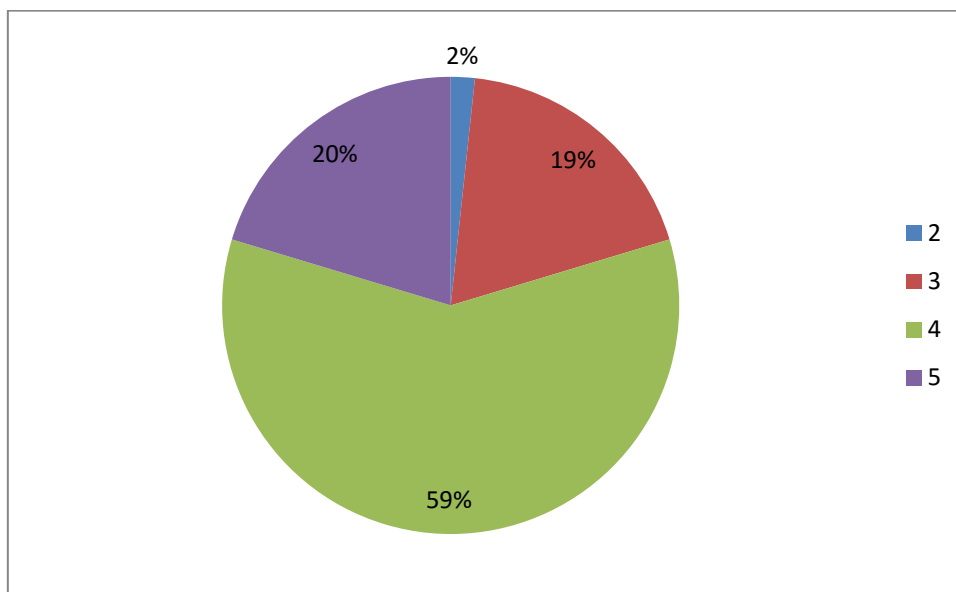
Nobody chose “Maybe” and “No” options.

7.3.16 On a scale of 1-5, how satisfied are you with the platform content organisation? (1- not satisfied, 5 - very satisfied)



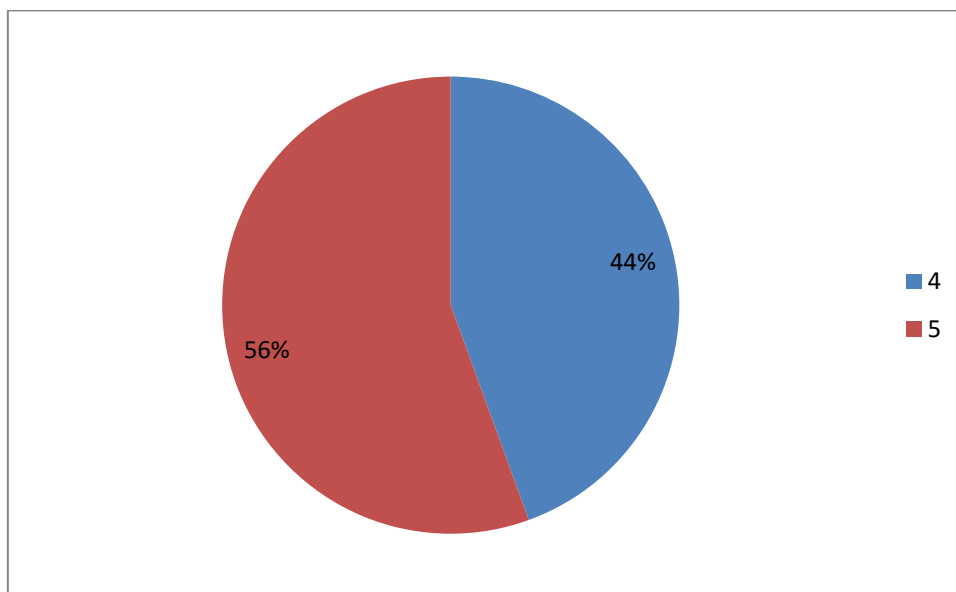
Taking into account that the value ‘3’ is neutral, 90% of the polled are satisfied with the platform content organisation .

7.3.17 On a scale of 1-5, how intuitive is the FurnIT platform content organisation? (1- not intuitive, 5- very intuitive)



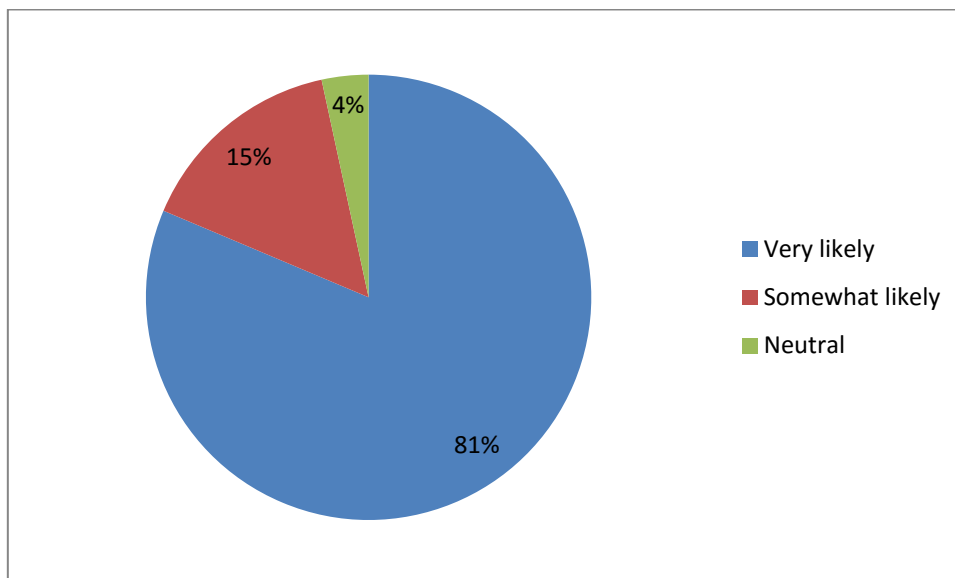
Almost 80% of the polled people said that the content organisation of the platform is very intuitive.

7.3.18 On a scale of 1-5, assess your user experience (1 - very bad, 5 - very good)



Taking into consideration that 4 and 5 are the best options, it seems that the testers are happy with the platform, because nobody choose the values '1', '2' or '3'.

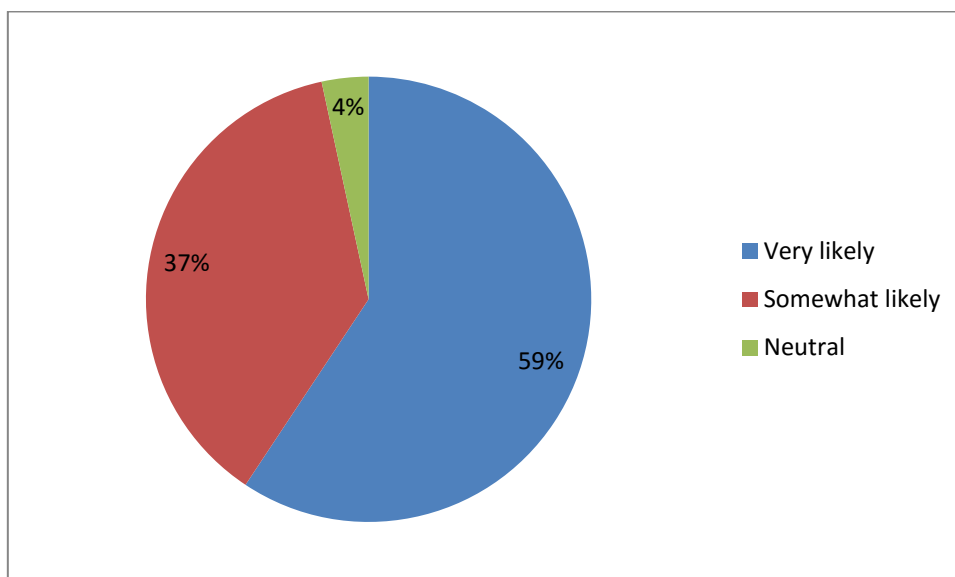
7.3.19 How likely is it that your satisfaction will improve thanks to using FurnIT?



This question was about the satisfaction level in case the furniture shop uses, as a normal tool, the FurnIT-SAVER platform.

From 5 possible answers, more than 95% of the answers were positive (and 81% were the most positive possible) and only 2 people select "Neutral". Nobody chose "Somewhat unlikely" or "Very unlikely"

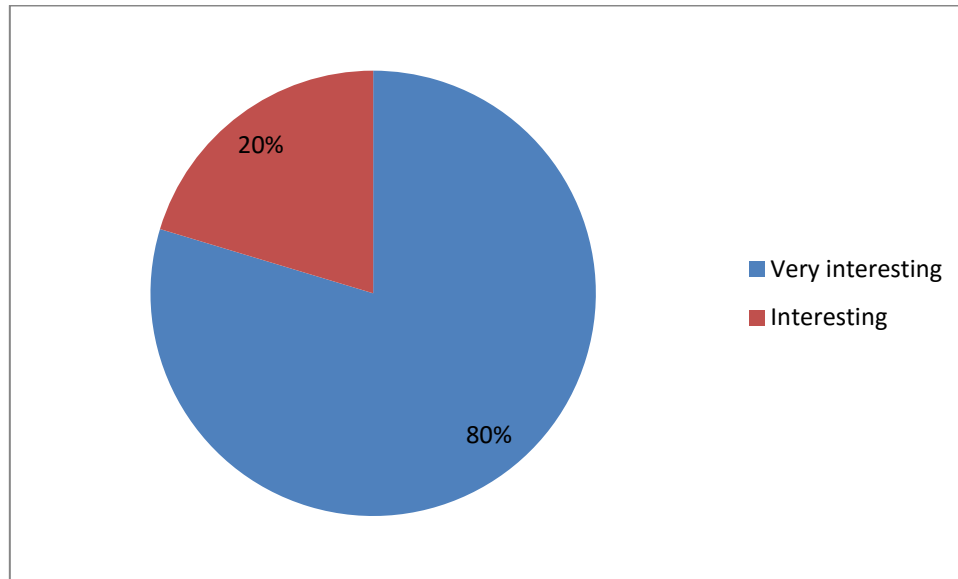
7.3.20 How likely is it that this number improves using FurnIT in the store?



Comparison between the probability of shopping again in the same furniture shop, once the shop uses the FurnIT-SAVER platform as a normal tool.

Nobody choose the 2 negative answers: "Somewhat unlikely" or "Very unlikely" and more than 95% of the polled select positive answers, in the same line than the previous question.

7.3.21 What is your general opinion of the FurnIT platform?



This last question could be used as a summary of the feedback, where 80% of the customers answered that the platform is *“very interesting”*. Nobody says *“Not much interesting”* or *“Not interesting at all”*.

Most of the interviewed said that the best of the platform is to be able to visualize the furniture "in situ" in the place where they will be located.

7.4 Comments

7.4.1 Best of the FurnIT-SAVER project

Most of the polled said that the best of the FurnIT project is:

- To be able to visualize the furniture "in situ" in the place where they will be located/To see the furniture in my own home/ You could have a real idea about how the furniture will look
- Design the room and see how the furniture look on it
- Everything
- The ease use and the speed to furnish
- Useful – practical
- To be able to do your own designs and see them
- The augmented reality application
- The virtual reality environment
- It helps you to decide between the furniture

7.4.2 Worst of the FurnIT-SAVER project

Summary of what polled said:

- Nothing
- Everything is interesting
- I have nothing to say
- I don't know
- It is not possible to resize the furniture
- The recommender doesn't recommend where to put the furniture

7.4.3 Suggestions of the polled people

- Curious, open new possibilities
- Very good as novelty
- It is not possible to resize the furniture
- I like it a lot because is more that I knew
- The recommender should recommend the furniture location as well
- Very practical
- Very interesting
- A very good idea
- It helps to make decisions in your buying process
- I like it a lot. I don't know that this could be possible

7.5 Conclusions

First of all, it is necessary to explain that using an expert person who knows the platform, doing the demo to the users (domestic customers), explaining the different steps and technologies, answering their questions and giving them support in real time, ..., help a lot to understand the project and concepts.

As a summary of the feedback questions, the general opinion of the FurnIT platform was "Very interesting" (80%) and "Interesting" (20%). Nobody of the polled selected negative answers to the general opinion. Then, this is a very good opinion from one of the potential users groups of the platform.

They like a lot the possibility of "playing" (like a game) with different furniture pieces: moving them, changing their attributes like colour, visualizing several furniture combinations from lots of points of view, testing with lots of options, ...

But they prefer to change the furniture colour using the right button of the mouse (for example) instead of removing the furniture piece and uploading a new one with the desired new colour in the Virtual Reality Environment. In the same way, they would like to resize the furniture directly in this environment instead of removing the model and upload another one with the new size.

It seems that the quality of the furniture is not very important for the final purchaser (or the quality level shown by the project environments is enough). In addition, they understood perfectly that we didn't have lot of furniture pieces in the database because the tools we were showing them were "prototypes" and not final or commercial products, and our final purpose was to know if these tools are useful to increase the purchaser satisfaction and will help them when buying furniture.

One of the most impressive thinks for the domestic purchasers was to see the desired furniture at home, in the place they want to locate the furniture, using the Augmented Reality Application. This possibility was simulated in the furniture shop because during the tests, the App was not published in the store yet.

On the other hand, the 15% of the polled bought furniture online and 2% only will not use Internet before going to the furniture shop in case they need buy furniture.

Most of the 80% of the polled selected that the features -defining the room layout in a PC environment, the Virtual Reality Environment and the Augmented Reality App- are useful for them, and the recommender engine around 50%. They had a good opinion of the Virtual and Augmented reality environments (all the opinions were positive).

Some of them said that if they have to use the Virtual Reality Environment, probably they don't find how to remove furniture and how to print the markers (now is using the right click of the mouse, once the model is selected). In the same way, if nobody explains them that they have to insert and assign the marker to the furniture, they will never know.

The possibility of assigning one marker to one unique furniture piece or to a furniture combination is another comment that the domestic customers said that need to be explained as well.

They said that using FurnIT platform as a supporting tools in a furniture shop will increase their satisfaction, increase the possibility of shopping again in the same shop and probably buy more products thanks to the visual tools.

8 Scenario 3 - Furnishing online an office or a hotel by a professional user

8.1 Initial considerations

The Slovenian partner GONZAGA and WIC members have contacted with professional clients ("contract" channel) who usually work with them. But the main contacts were done by Gonzaga, Alpes and Murales furniture manufacturer enterprises, that have also participated actively in the scenario 4 as well.

8.2 Validation scenario preparation

Previously we spent a big effort in preparation of quality 3D models of furniture, produced in the companies that have uploaded their furniture models into the platform. This action was much demanded and time consumed because furniture manufacturers mostly use 2D models or in best-case simple 3D models for furniture drawing and designing.

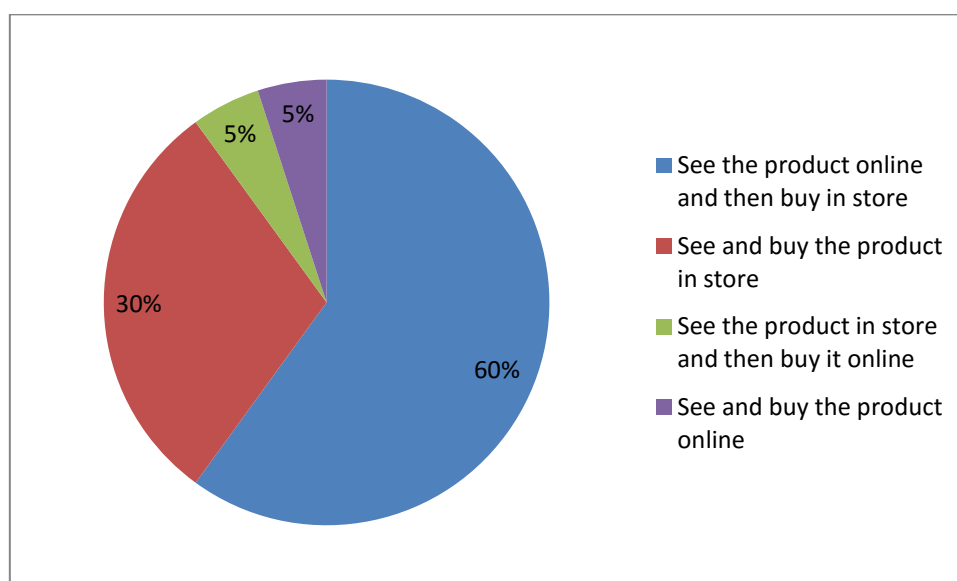
After assuring enough quality and quantity of 3D models, we find out technical person in each company to take care for uploading them on the FurnIT VR platform. Then, we assure that companies have understood possibilities of the FurnIT platform being more familiar with functionalities. This assure us to get many relevant and useful feedbacks.

8.3 Participants

20 testers have participated in the scenario 3.

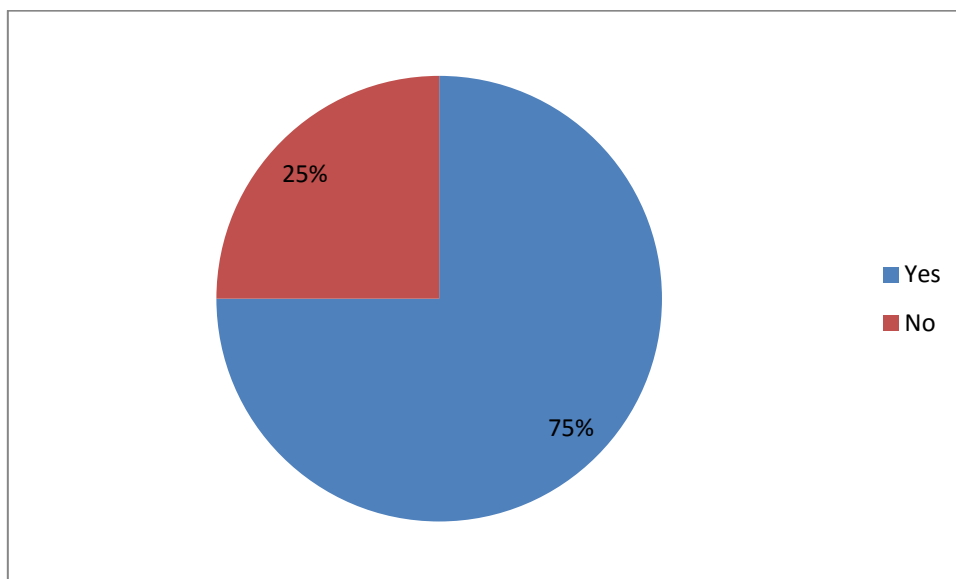
8.4 Feedback analysis

8.4.1 How do you prefer buying furniture?



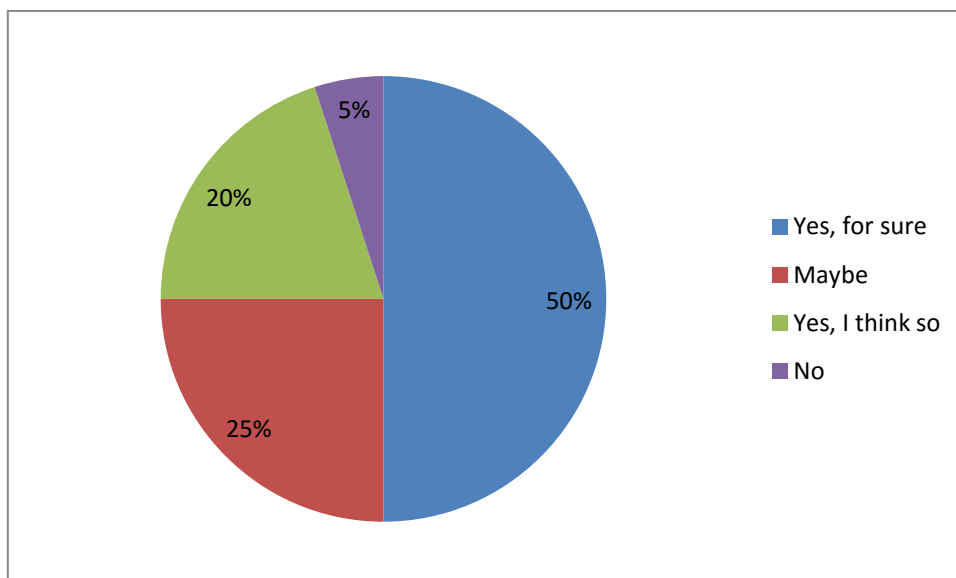
95% of the testers said that they prefer buying furniture in store.

8.4.2 Last time you bought furniture, did you use the Internet to look for furniture?



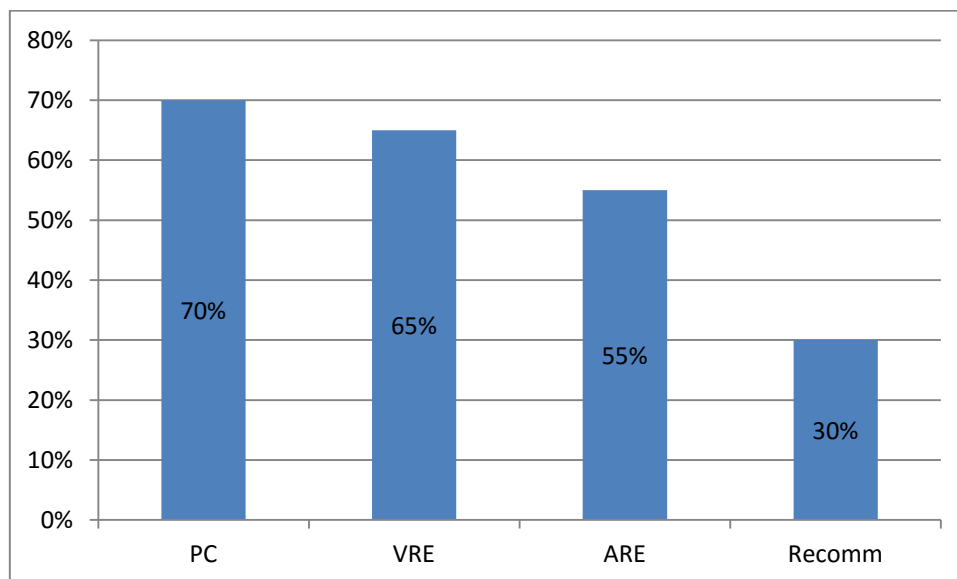
Very clear answer for professional clients: 75% of the polled has used Internet before buying furniture.

8.4.3 In case you need to buy furniture, would you use Internet before going to the shop?



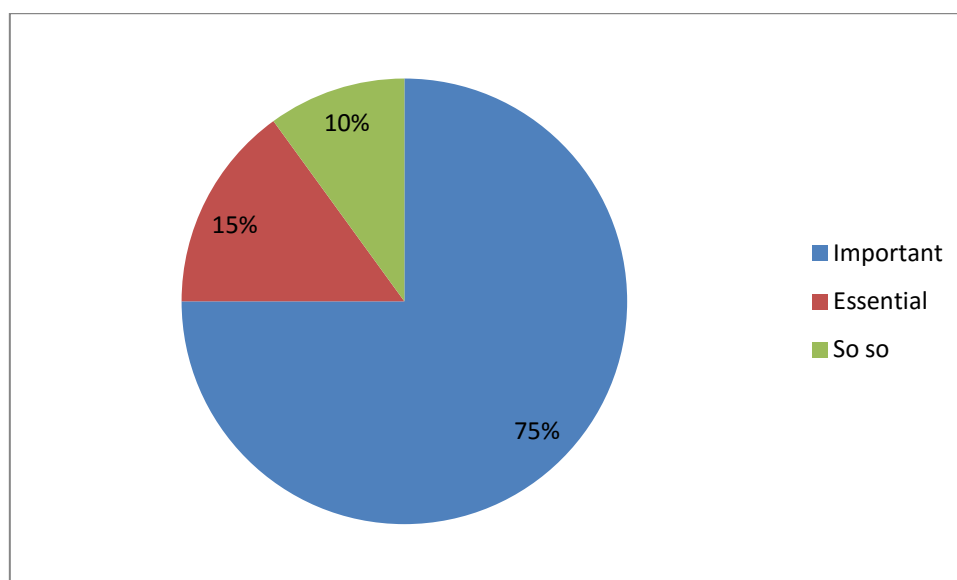
70% of the testers said that they will use Internet before going to the shop, in case they need buy furniture, and 25% said "Maybe", in the same line with the previous question.

8.4.4 Which of the following features are useful for you? (you can select more than one)



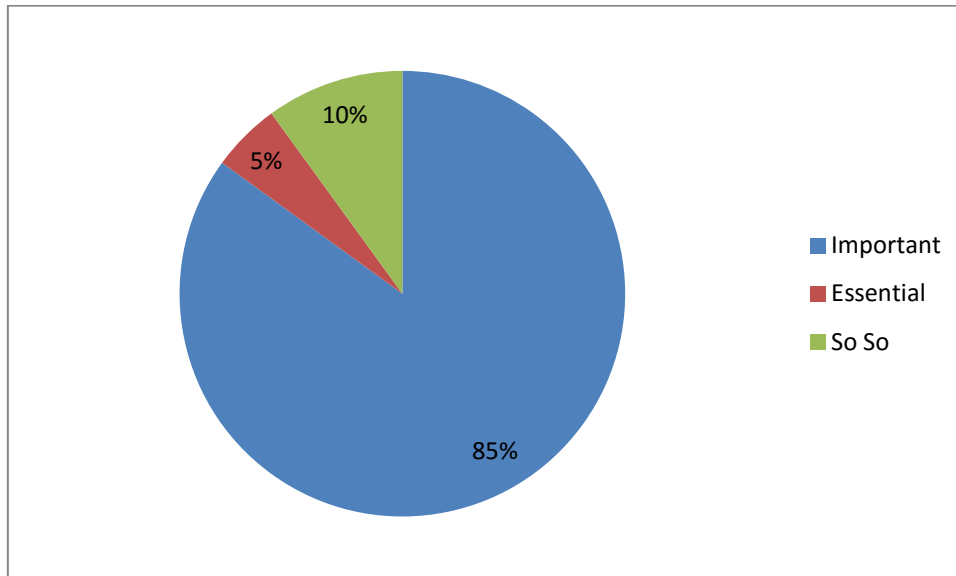
70% of the polled, think that the layout definition in the PC environment is very useful. More than 50% said that the Virtual and Augmented Reality Environments are useful for them. Finally, 30% think that the recommender engine is useful as well.

8.4.5 Do you consider important visualizing the furniture in the Virtual Reality Environment for your purchasing process?



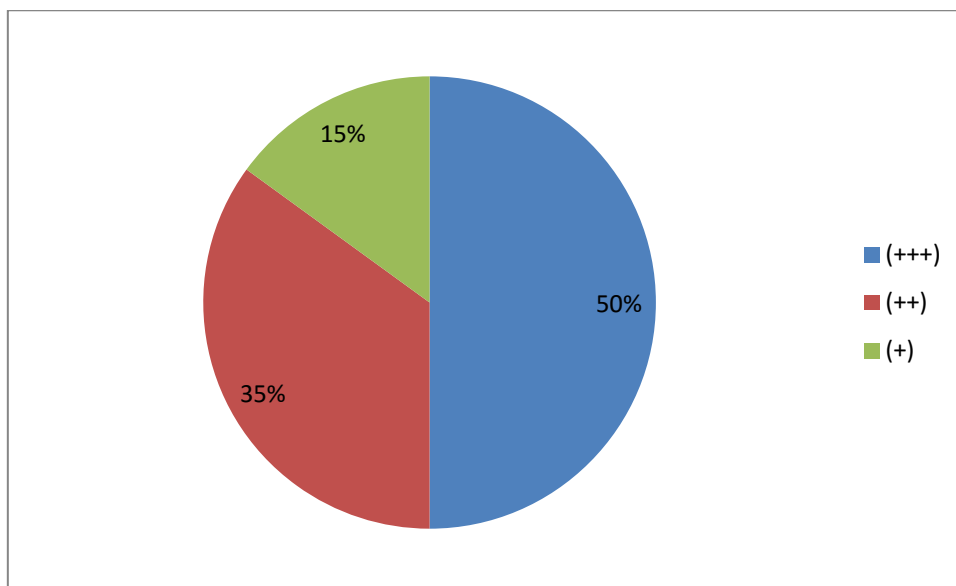
Most of the testers answered the positive answers “Important” or “Essential”. Nobody choose the “no” option.

8.4.6 Do you consider important visualizing the furniture in the Augmented Reality application for your purchasing process?



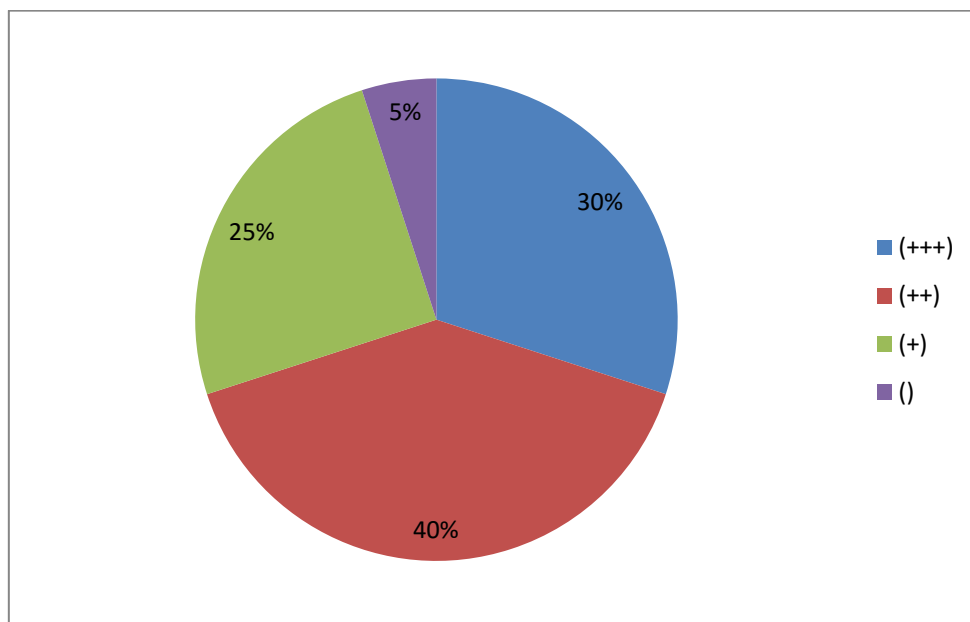
In the same line than the previous question, most of the people answered “*Important*” and “*Essential*”: 95%. Nobody said “*No*”.

8.4.7 How positive are these aspects of the FurnIT platform for you? [Visualizing lots of furniture combinations]



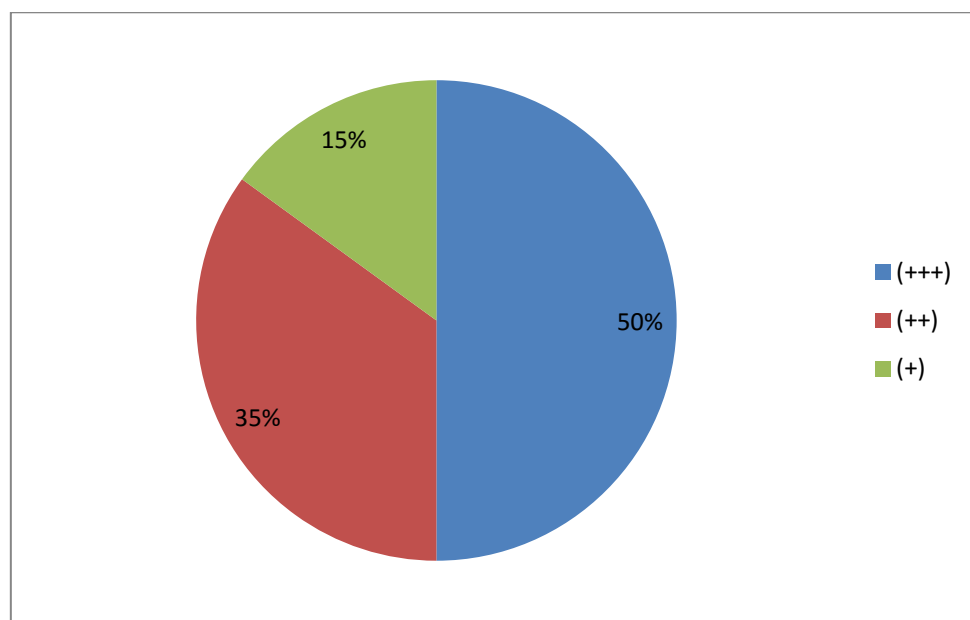
85% think that visualising lots of furniture combinations is a positive aspect, taking into account that (+++) and (++) are the 2 most positives and (+) and () are the less positives.

8.4.8 How positive are these aspects of the FurnIT platform for you? [Useful recommendator that helps to take decisions]



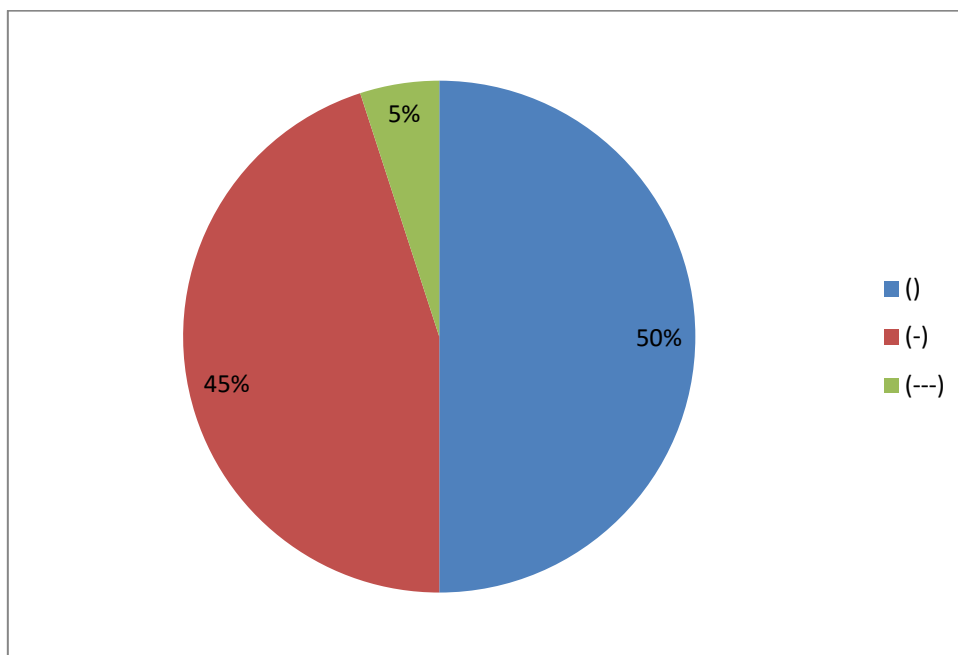
70% of the polled people think that the recommender engine is a good tool for making decisions.

8.4.9 How positive are these aspects of the FurnIT platform for you? [Saving different furniture combinations in my personal area]



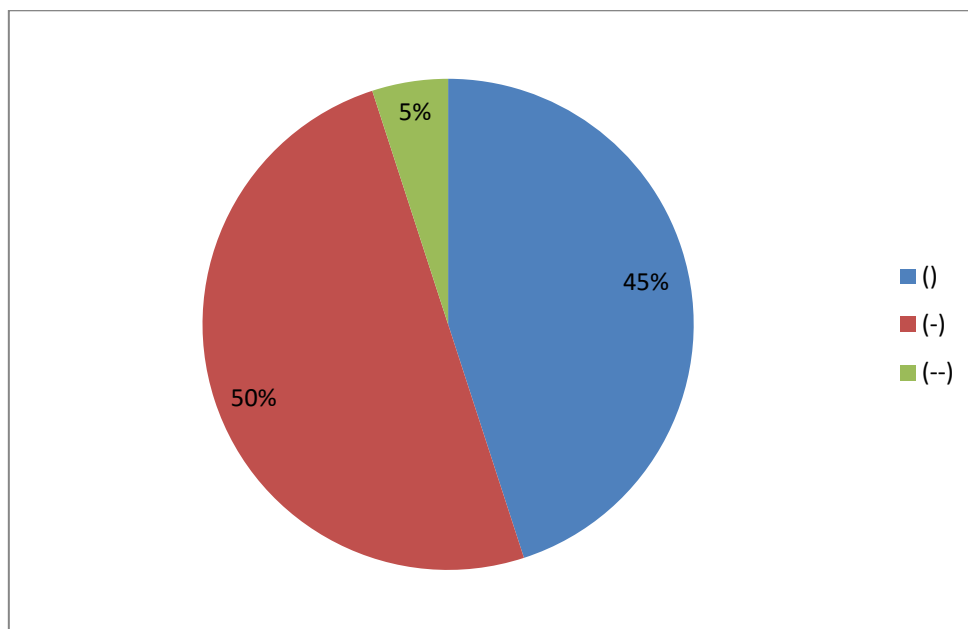
85% of the polled said that saving different furniture combinations in their personal area is a positive aspect (+++) and (++).

8.4.10 How negative are these aspects of the FurnIT platform for you? [Too Complex]



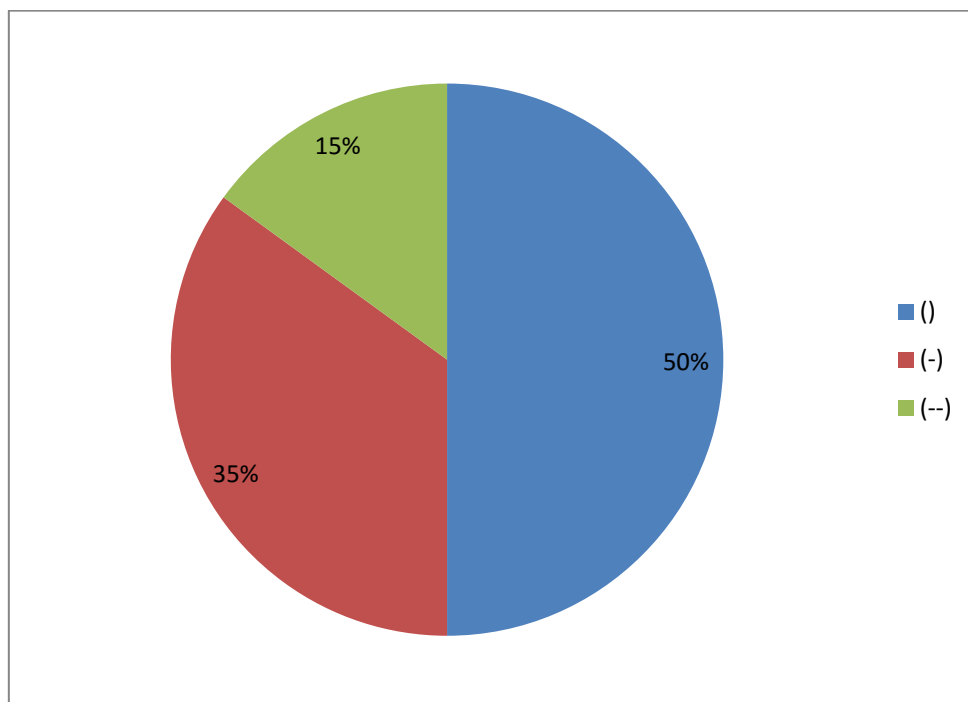
50% of the polled people said that the complexity is not a negative aspect [()] and 95% selected the less negative options [()] and (-)].

8.4.11 How negative are these aspects of the FurnIT platform for you? [Too many steps]



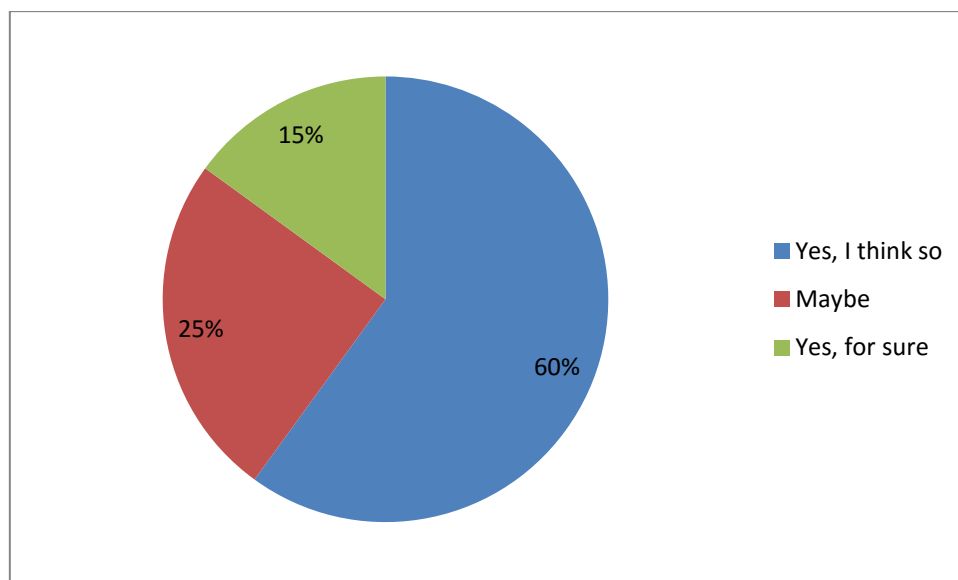
45% of the polled people selected that "to many steps" is not a negative aspect [()] and 95% selected the less negative options [()] and (-)].

8.4.12 How negative are these aspects of the FurnIT platform for you? [Not much furniture pieces]



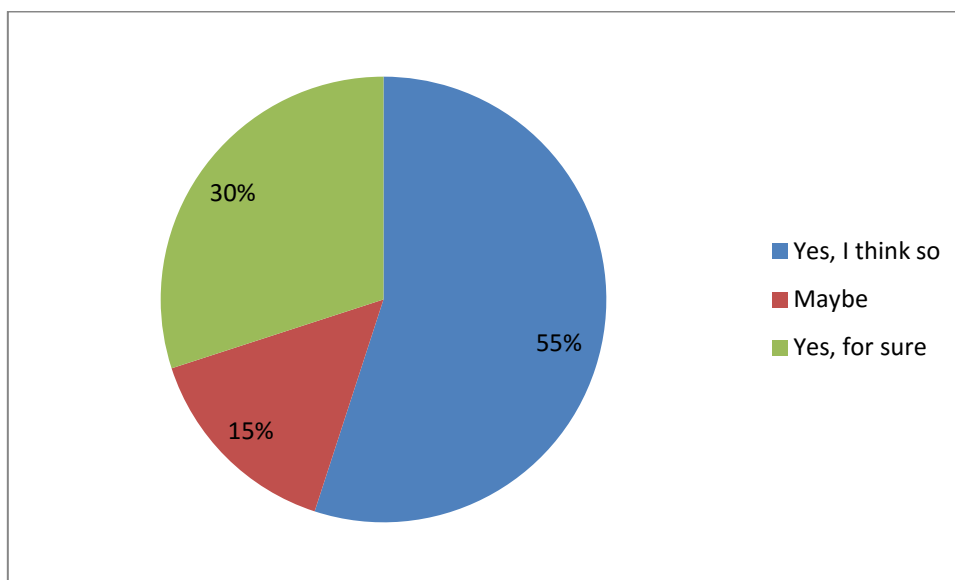
85% of the polled people selected that “not much furniture pieces” is not a negative aspect [() and (-)].

8.4.13 Would you use the FurnIT platform in the future?



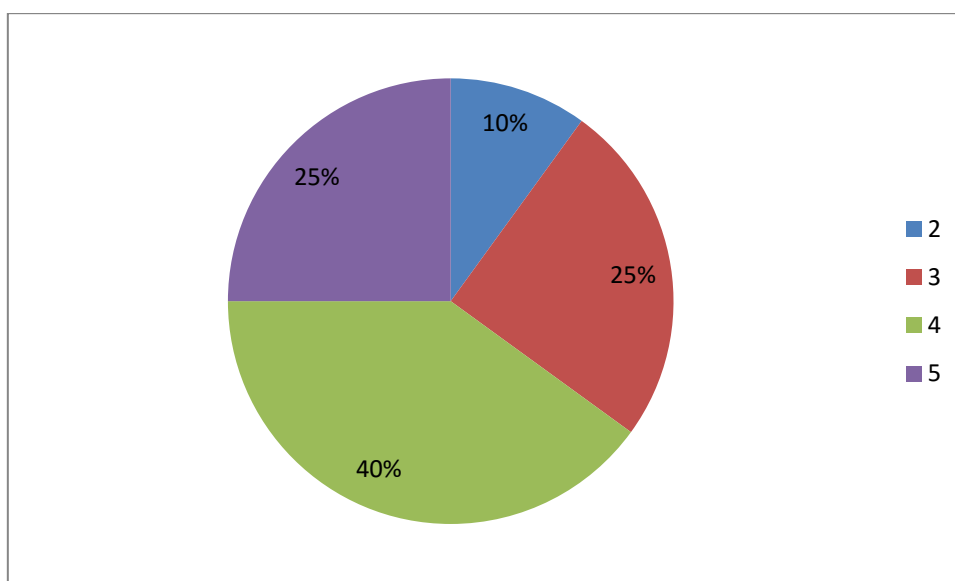
75% have chosen the option “Yes”, and nobody selected “No”.

8.4.14 Would you recommend the FurnIT platform?



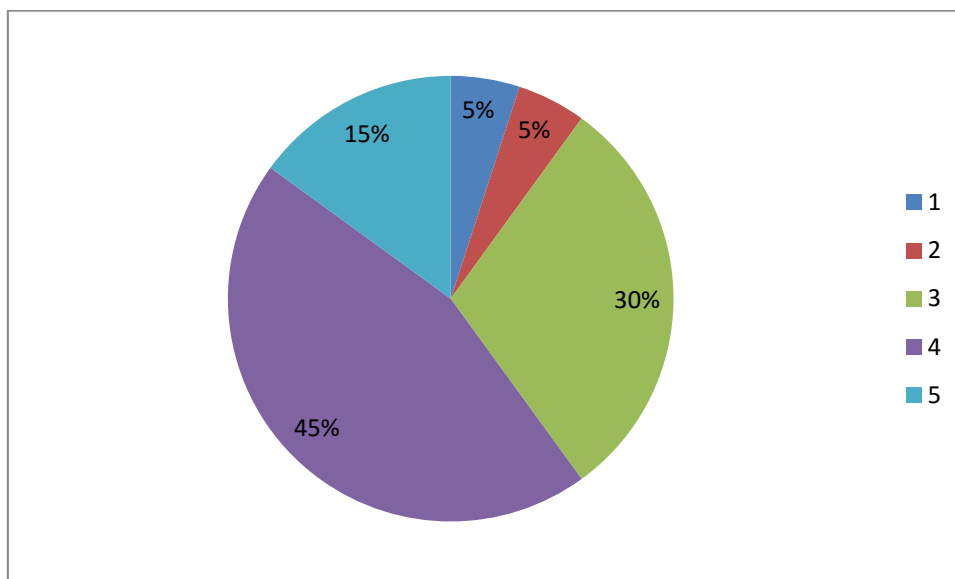
Nobody chose “No” option. The “Yes” option was 85% of the polled people.

8.4.15 On a scale of 1-5, how satisfied are you with the platform content organisation? (1- not satisfied, 5 - very satisfied)



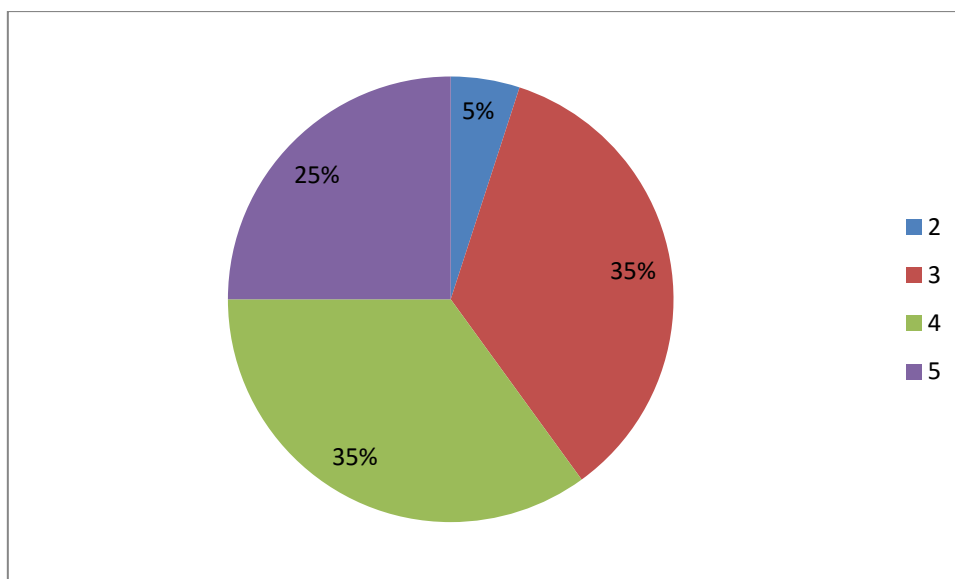
Taking into account that the value ‘3’ is neutral, 65% of the polled are satisfied with the platform content organisation. Only 10% are unsatisfied with this indicator.

8.4.16 On a scale of 1-5, how intuitive is the FurnIT platform content organisation? (1- not intuitive, 5- very intuitive)



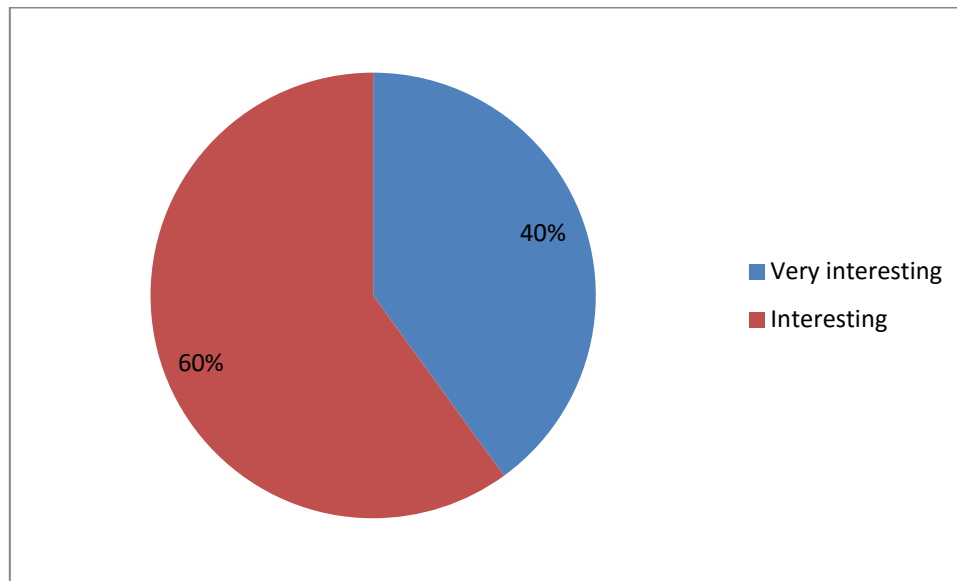
60% of the polled people said that the content organisation of the platform is intuitive. Only 10% of the polled selected negative values ('1 and '2').

8.4.17 On a scale of 1-5, assess your user experience (1 - very bad, 5 - very good)



Taking into consideration that 4 and 5 are the best options, the 60% of the polled answered '4' and '5'. Only 5% gave a low value for the user experience.

8.4.18 What is your general opinion of the FurnIT platform?



This last question could be used as a summary of the feedback. Nobody says “Not much interesting” or “Not interesting at all”.

8.5 Comments

8.5.1 Best of the FurnIT-SAVER project

Most of the polled said that the best of the FurnIT project is:

- AR environment
- You can see the furniture in real living space/Visualizing
- Usefulness
- Exciting
- Simplicity
- Interesting
- Easy to use
- Have a big store of furniture and interesting virtual reality platform
- 3d view
- Moving furniture
- Play with different styles and style-mixes

8.5.2 Worst of the FurnIT-SAVER project

Summary of what polled said:

- Nothing
- Everything is at least Ok
- Moving furniture in the virtual reality space

- Relative slow working
- Design layout

8.5.3 Suggestions of the polled people

- Too long feedback. It is not very clear who should take it (designer or costumer)
- Application FurnIT has potential but needs some improvement
- The success of this platform is depended on the variety of items, their quality and the functioning of the platform. Now, the later is not user friendly. There is lots of invisible text - due to the unfortunate choice of background colour...

8.6 Conclusions

The general opinion of the platform is quite positive: “interesting” and “very interesting”, with no negative answers.

In addition, the 90% of the polled said that seeing the furniture in virtual reality environment is important (only 10% said “so so”), in the same line than the augmented reality environment (only 10% said “so so” as well).

The potential future use of the developments were accepted by 60% of the polled (“I think so” answer) and 15% (“for sure”), with only 25% answering “Maybe” and no negative answers. The platform recommendation follows a positive numbers as well: 55% (I think so), 30% (for sure) and 15% (Maybe), with no negative answers.

Then, the project developments seems that are quite accepted by the professional clients.

But, some of the comments said that they need some user manual, instructions or support about how to use the platform and their functionalities, because is not 100% user-friendly, and the platform needs some improvements.

As a general conclusion and taking into account that the developments are prototypes and not commercial products, the general opinion seems quite positive, with some comments related to improvements and user instructions.

9 Scenario 4 - Furnishing hotel rooms or office spaces by a professional users with the support of a retail shop/showroom

9.1 Initial considerations

The scenarios were validated at the following Slovenian manufacturers premises:

Gonzaga-Pro d.o.o. (www.gonzaga.eu) is manufacturer of office furniture and equipment for public institutions as well as enterprises. Based on their vision, they developed an integrated service, which includes consultation, engineering and production of furnishings for offices, kindergartens, schools, libraries, hotels and public urban spaces.

Integrating indigenous engineering with modern technology-assisted production, Gonzaga is able to manufacture furniture with a value and quality performance that satisfies even the most demanding customers. Employing 40 people, they have their own salon and sold mostly through its own sales network and agents.

Murales d.d. (www.murales.si) is manufacturer of dining room and seating furniture, chairs, tables, corner benches and dining showcases. It also produces chairs and tables for furnishing hotels, restaurants and other public facilities. It exports around 60% of production, particularly in challenging markets of Germany, Austria, Croatia, Russia, ...

The company employs 85 workers and is constantly developing new programs and variety. Their goal is to make more production to sell under its own brand. In addition to his own saloon, also they have a range of contractual saloons throughout Slovenia.

Alples d.d. (www.alples.eu) is the leading furniture manufacturer in the middle price range on Slovenian furniture market. The company, with 240 employees, has a clear vision and strategy of development. They have an ISO 9001:2000 certificate for development, production and sale of furniture.

Alples has a rich tradition in industrial production of residential furniture like living room, anteroom, bedroom, kitchens, children room and youth room furniture. Alples is known for its business spirit initiative. In services such as assembling, servicing of customers and delivering in the times due, Alples is a model for many other furniture producers. They have own salon and a lot of franchise and contracted salons all around Slovenia Central and SE Europe. Trademark Alples is much known in Slovenia and SE Europe markets.

9.2 Validation scenario preparation

Validation were carried out in the facilities of above-mentioned companies including their selling points/salons/showrooms and personnel.

In the same way than the scenario 3 preparation, we spent a big effort in preparation of quality 3D models of furniture, produced in those three companies. We needed some

training for technical people to upload the furniture models and to know how the platform was working.

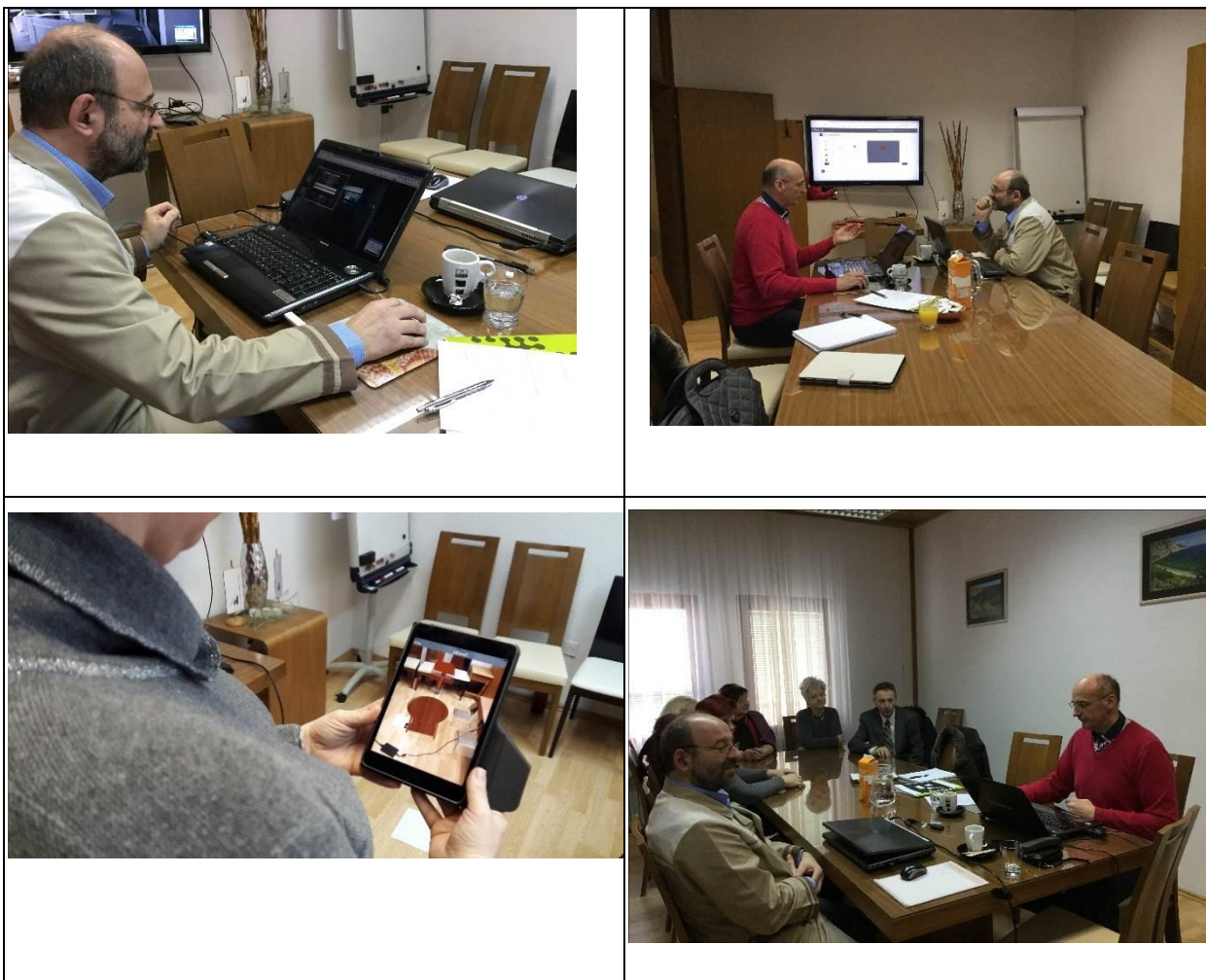
After that, we briefly studied validation scenarios protocols from D4.1 and prepare all needed materials and IT equipment (laptop, webex screen capturing software, tablet with AR app, questionnaires, markers,...).

When we were organizing the validation, we also took care about training the relevant people for testing the FurnIT platform in real situations and environment. We assure technical persons dealing with development / designing of the (3D) furniture, sales persons and also customers, which were included in validation.

During the realization of the validation scenarios we had full collaboration of all involved staff. We did some recommendations and we have reported bugs that were very useful for improvement of the FurnIT platform.

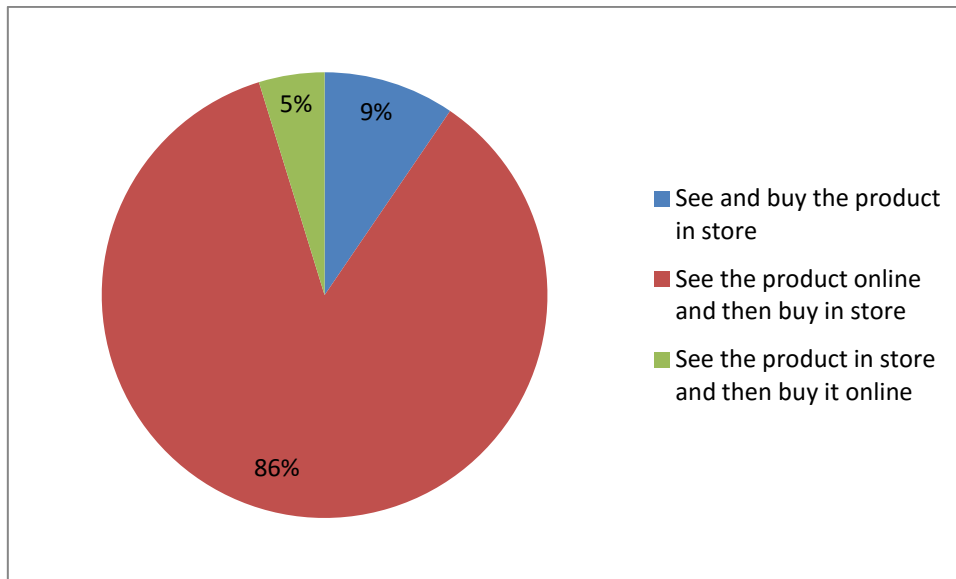
9.3 Participants

21 testers have participated in the scenario 4.



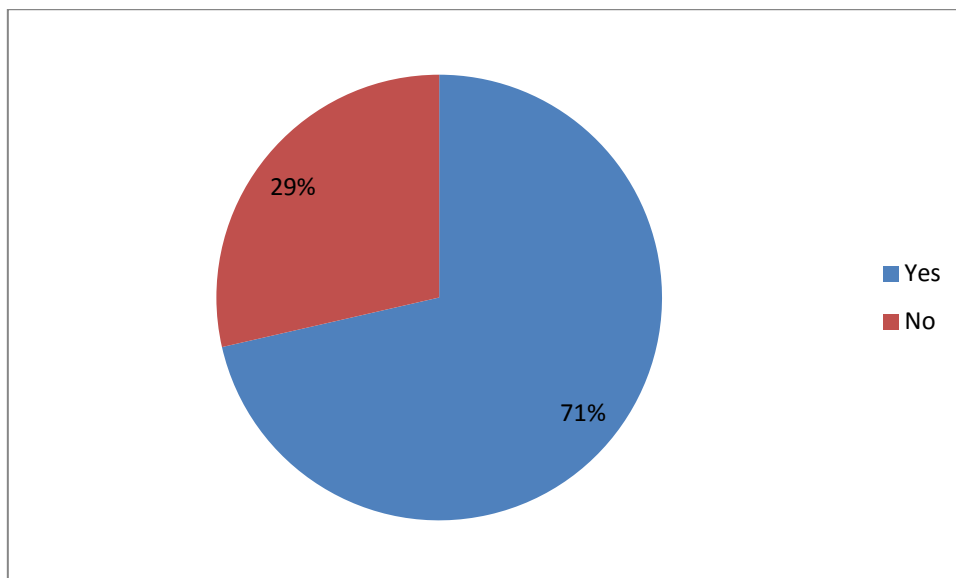
9.4 Feedback analysis

9.4.1 How do you prefer buying furniture?



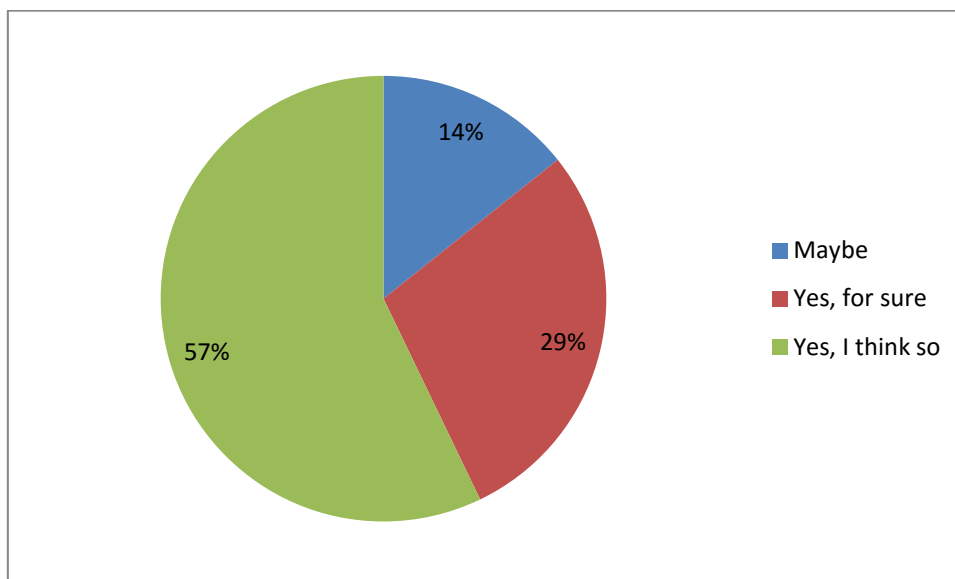
95% of the testers said that they prefer buying furniture in store.

9.4.2 Last time you bought furniture, did you use the Internet to look for furniture?



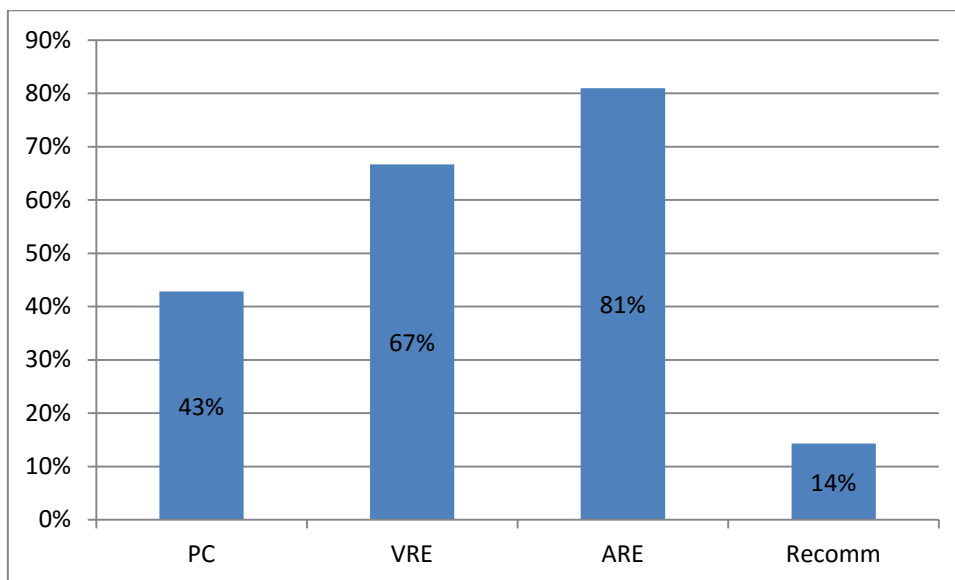
More than 70% have used internet to look for furniture, last time they bought furniture.

9.4.3 In case you need to buy furniture, would you use Internet before going to the shop?



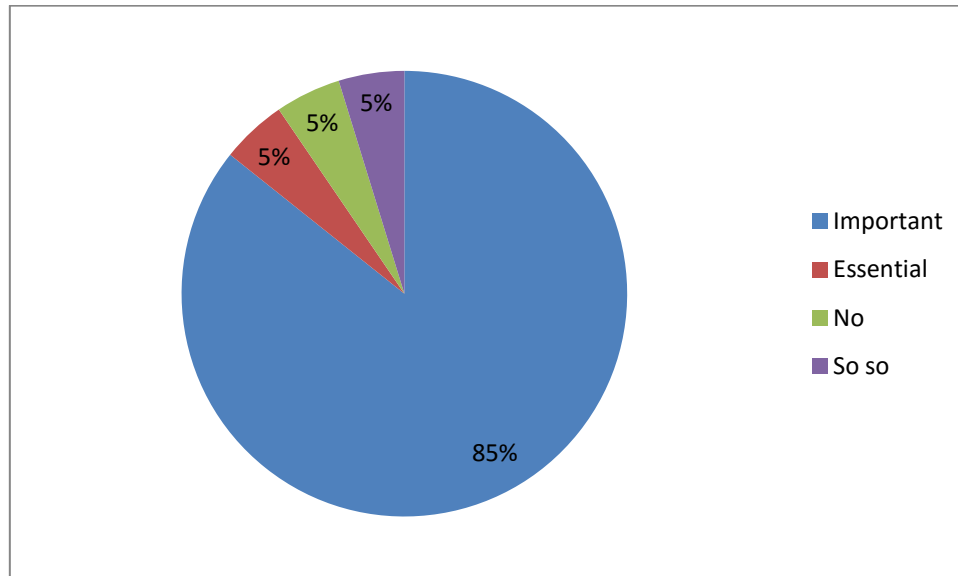
More than 85% of the testers said that they will use Internet before going to the shop, in case they need buy furniture, and 14% said "Maybe"

9.4.4 Which of the following features are useful for you? (you can select more than one)



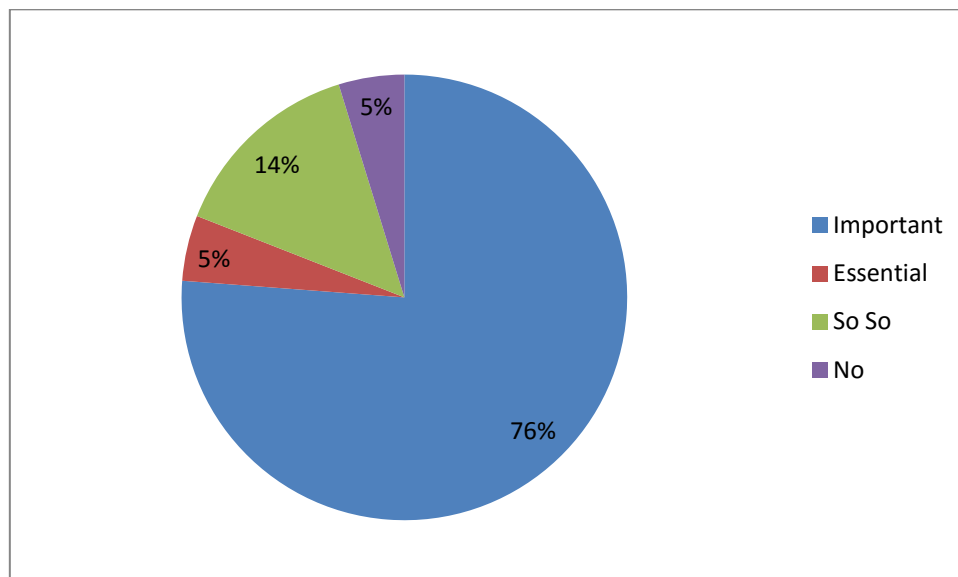
The most important features for the scenario 4 are the virtual environment (67%) and augmented reality application (81%).

9.4.5 Do you consider important visualizing the furniture in the Virtual Reality Environment for your purchasing process?



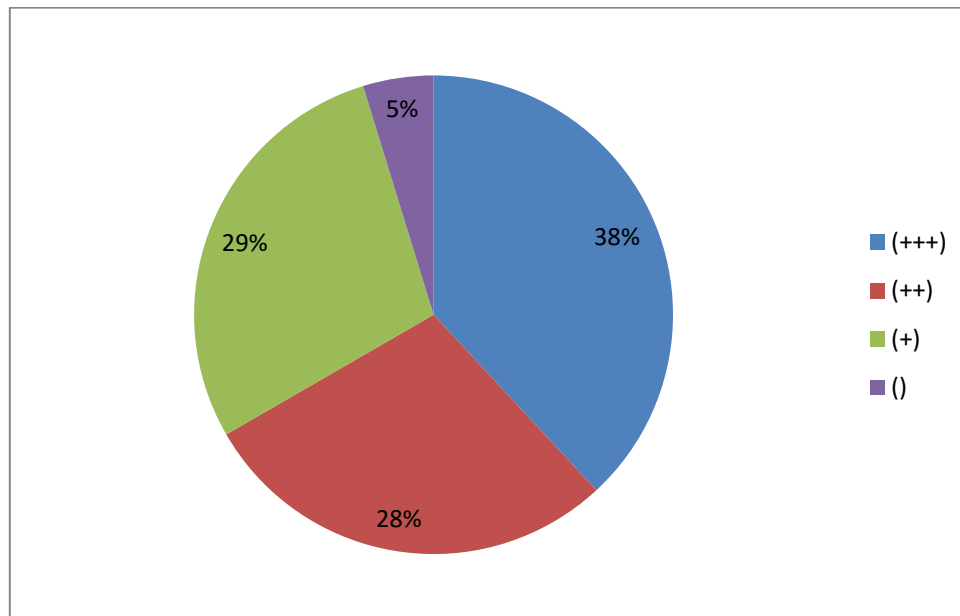
90% of the testers answered the positive answers “Important” or “Essential”

9.4.6 Do you consider important visualizing the furniture in the Augmented Reality application for your purchasing process?



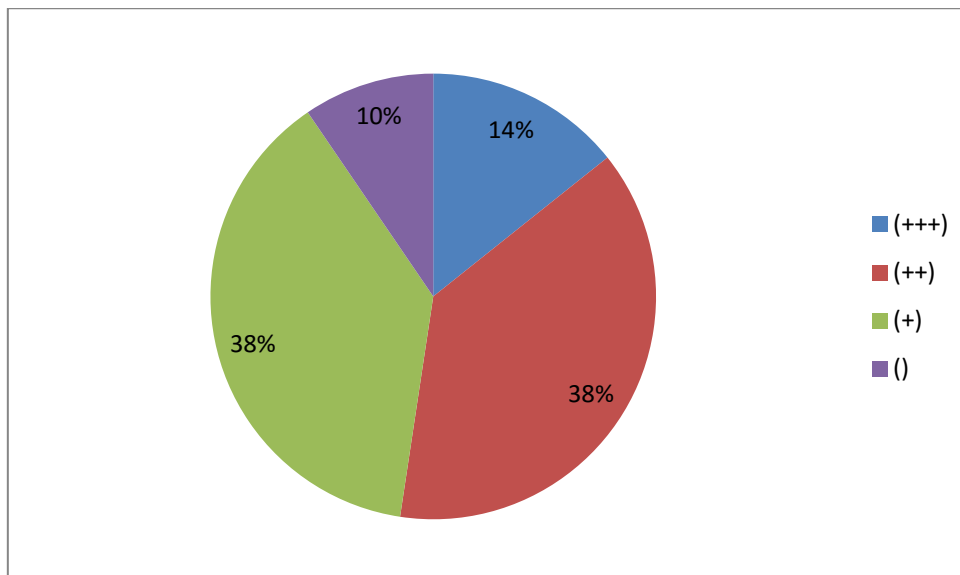
In the same line than the previous question, most of the people answered “Important” (76%).

9.4.7 How positive are these aspects of the FurnIT platform for you? [Visualizing lots of furniture combinations]



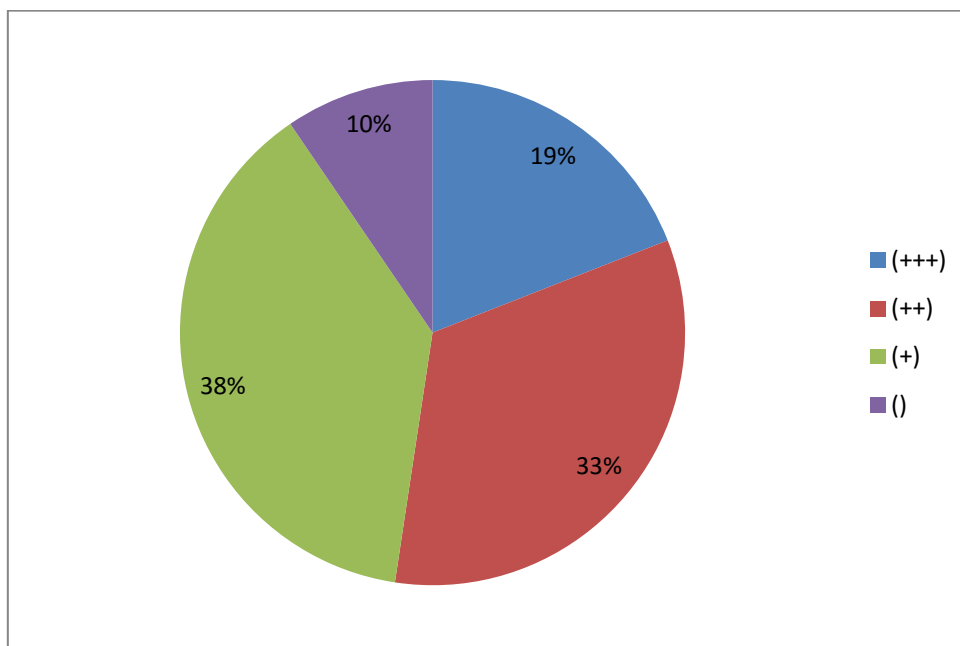
66% of the polled think that visualising lots of furniture combinations is a positive aspect, taking into account that (+++) and (++) are the 2 most positives and (+) and () are the less ones.

9.4.8 How positive are these aspects of the FurnIT platform for you? [Useful recommendator that helps to take decisions]



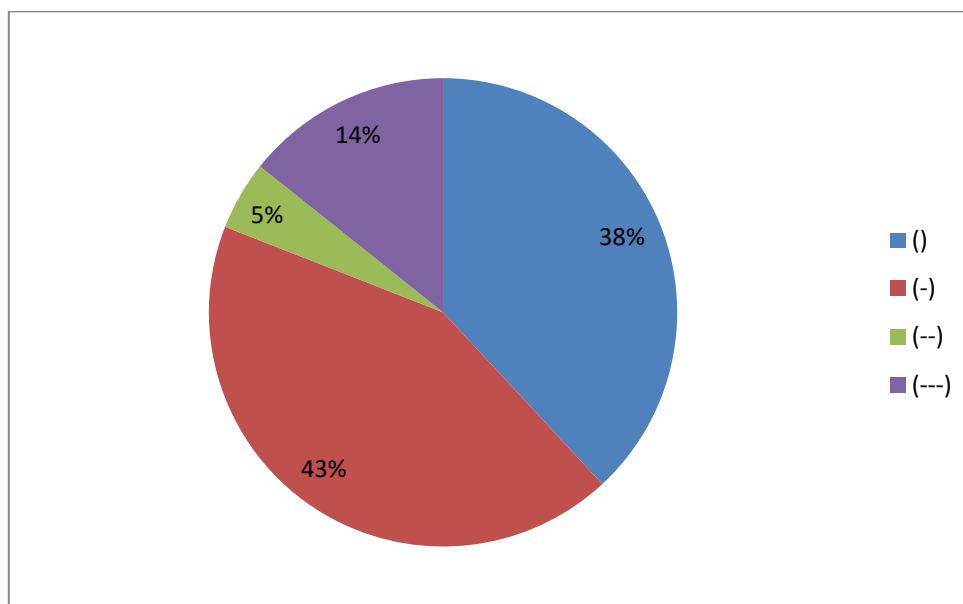
52% of the polled people think that the recommender engine is a good tool for making decisions.

9.4.9 How positive are these aspects of the FurnIT platform for you? [Saving different furniture combinations in my personal area]



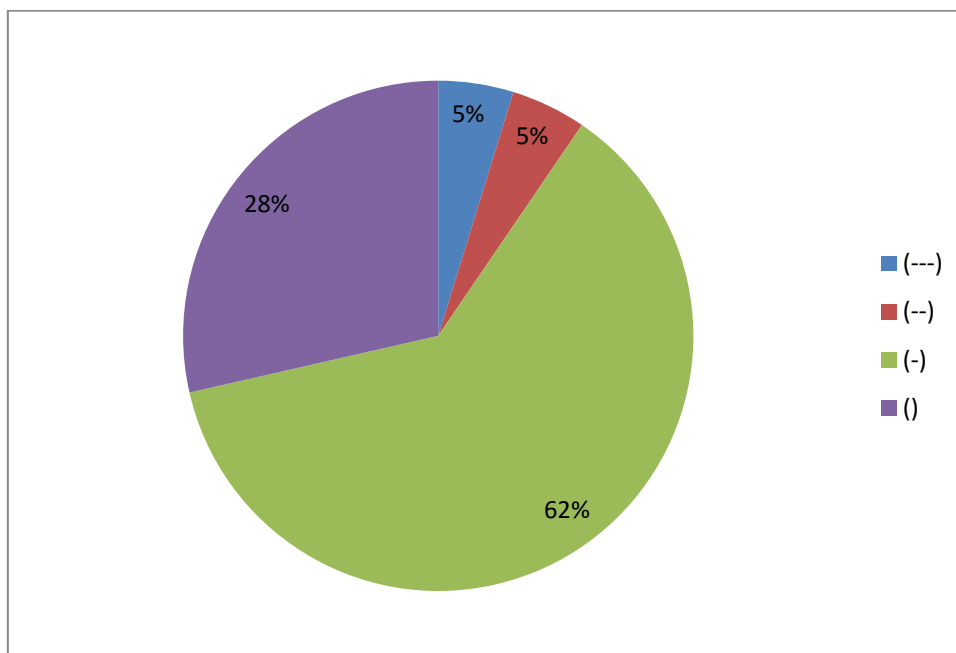
52% of the polled said that saving different furniture combinations in their personal area is a positive aspect (+++) and (++) .

9.4.10 How negative are these aspects of the FurnIT platform for you? [Too Complex]



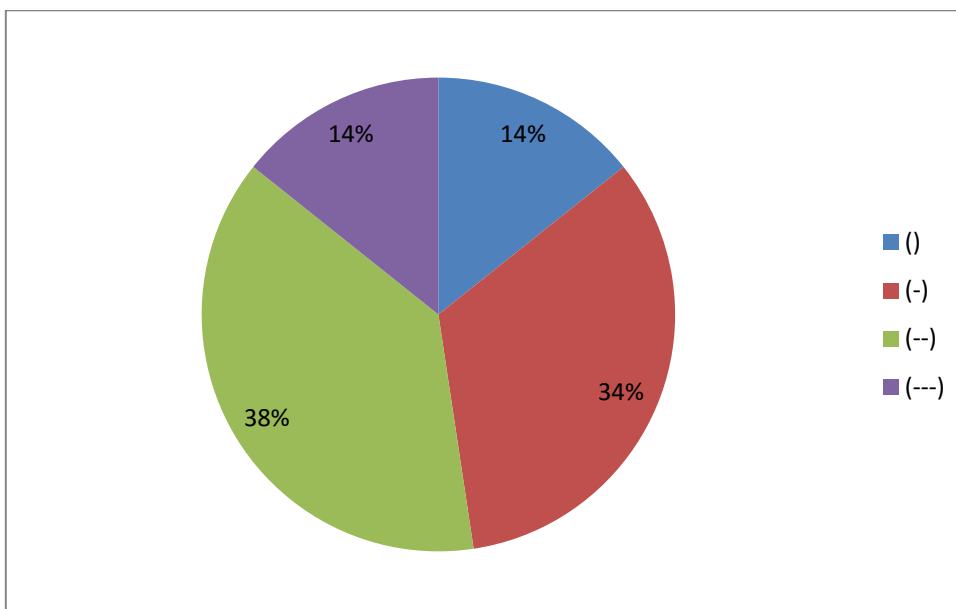
81% of the polled people said that the complexity is not a negative aspect selecting the less negative options [() and (-)].

9.4.11 How negative are these aspects of the FurnIT platform for you? [Too many steps]



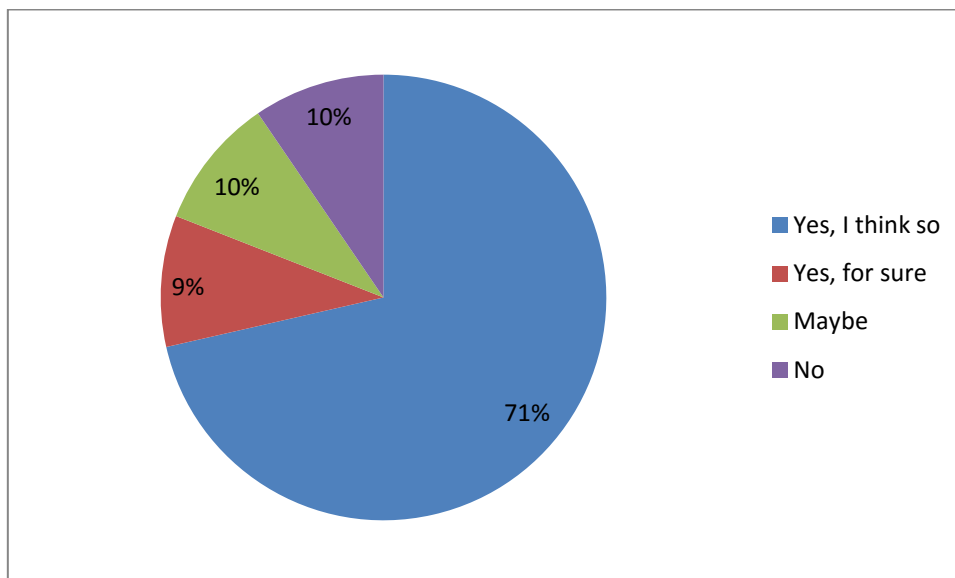
90% of the polled people selected that “to many steps” is not a negative aspect selecting the less negative options [()] and (-)].

9.4.12 How negative are these aspects of the FurnIT platform for you? [Not much furniture pieces]



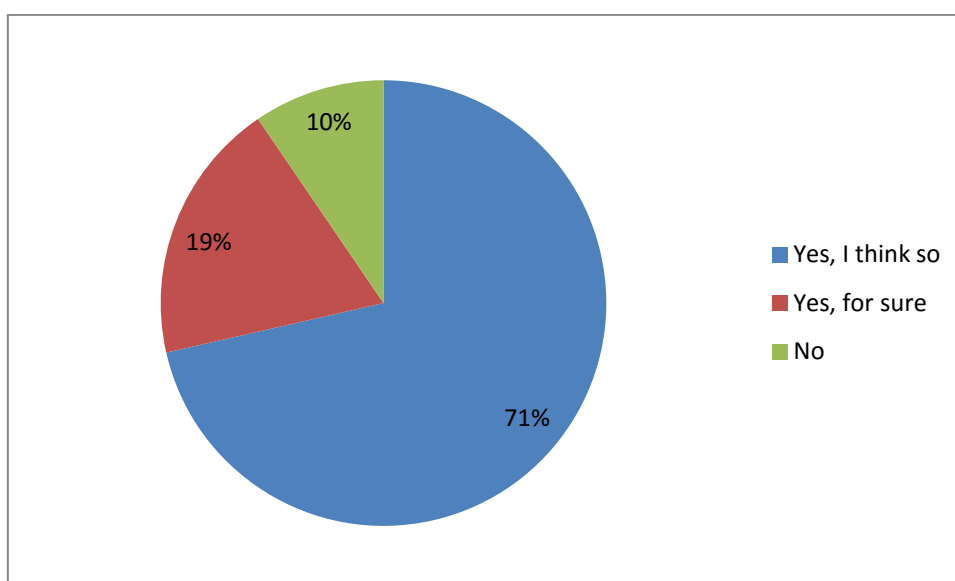
48% of the polled people selected that “not much furniture pieces” is not a negative aspect [()] and (-)].

9.4.13 Would you use the FurnIT platform in the future?



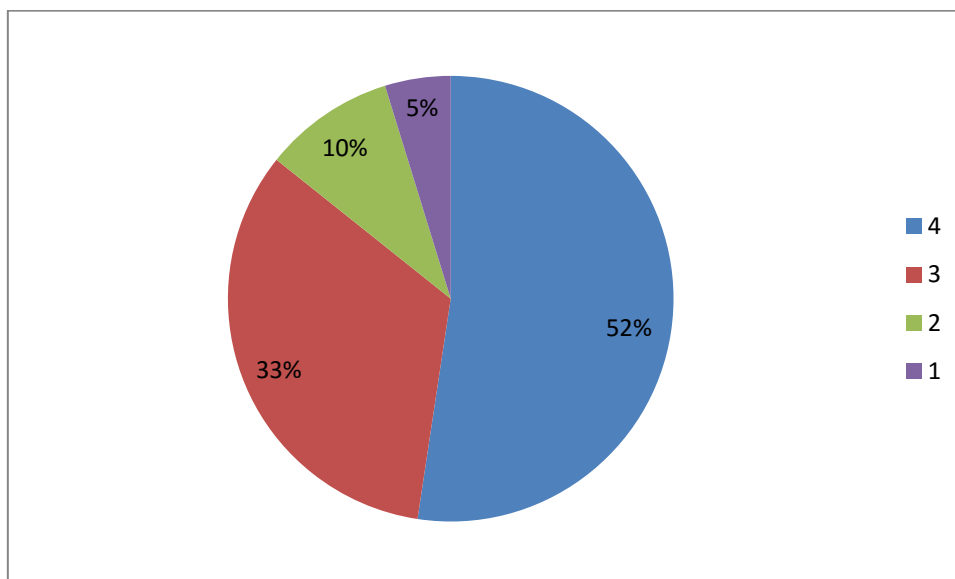
80% have chosen the option "Yes", and 10% "maybe".

9.4.14 Would you recommend the FurnIT platform?



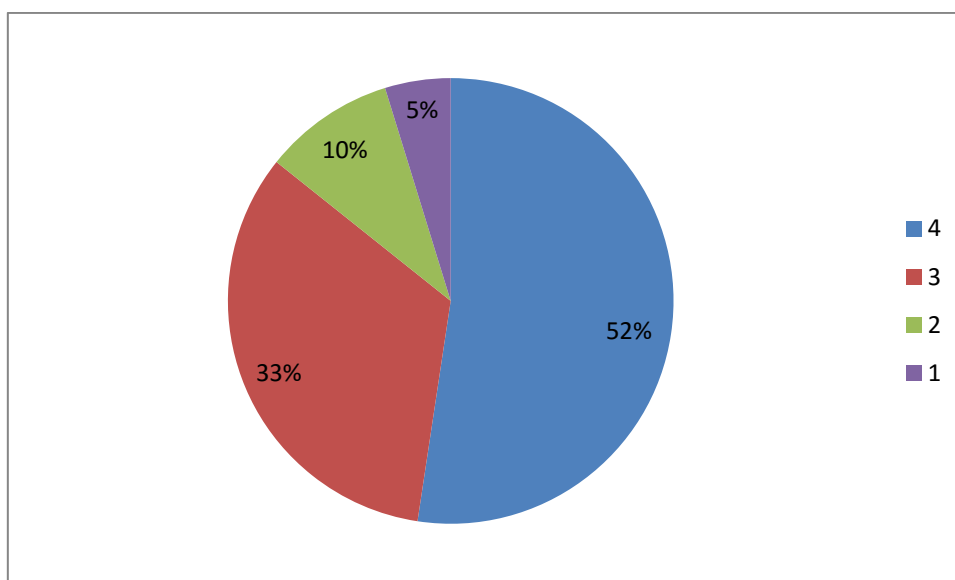
The "Yes" option was 90% of the polled people. Nobody selected "Maybe"

9.4.15 On a scale of 1-5, how satisfied are you with the platform content organisation? (1- not satisfied, 5 - very satisfied)



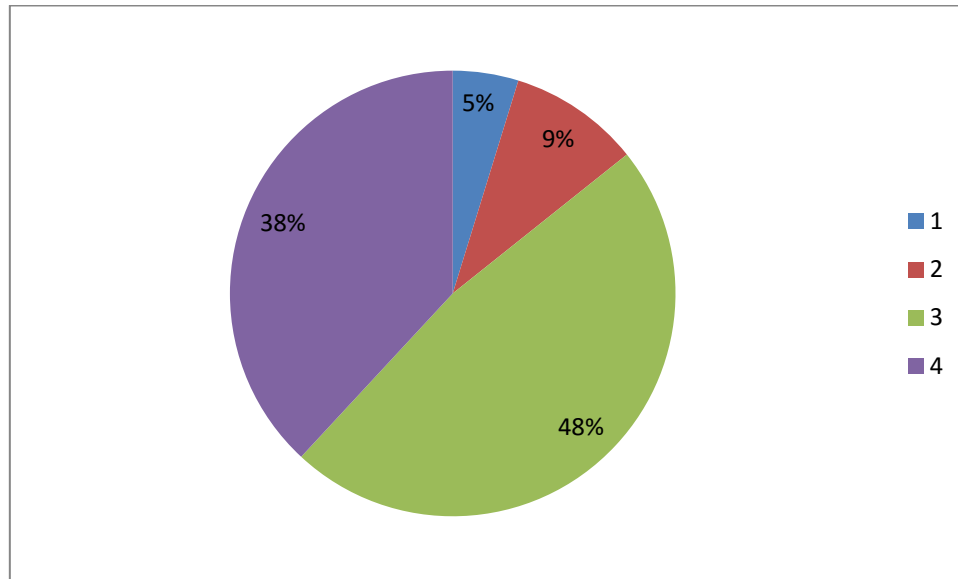
Taking into account that the value '3' is neutral, 52% of the polled are satisfied with the platform content organisation. Only 15% are unsatisfied with this indicator.

9.4.16 On a scale of 1-5, how intuitive is the FurnIT platform content organisation? (1- not intuitive, 5- very intuitive)



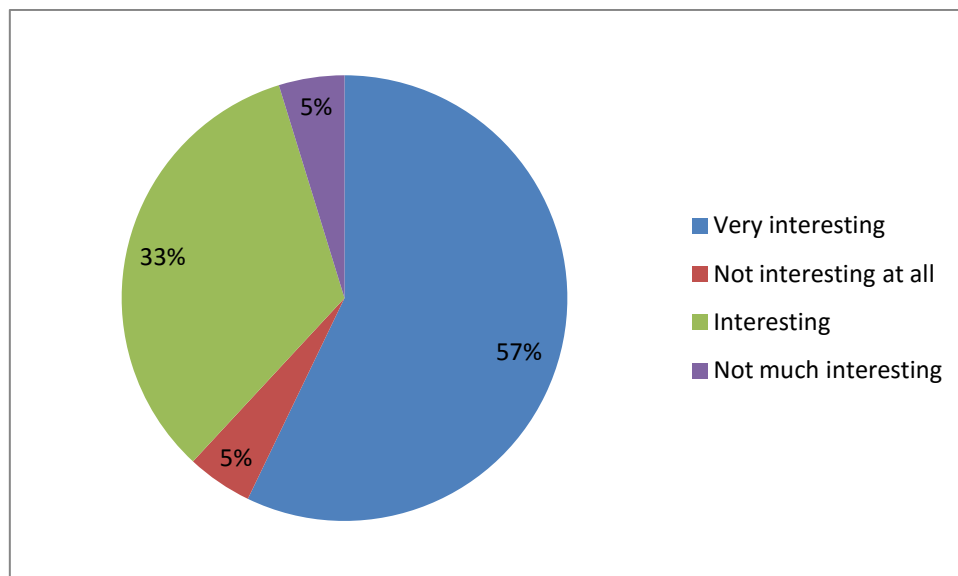
52% of the polled people said that the content organisation of the platform is intuitive. Only 15% of the polled selected negative values ('1 and '2').

9.4.17 On a scale of 1-5, assess your user experience (1 - very bad, 5 - very good)



Taking into consideration that 4 and 5 are the best options, the 38% of the polled answered '4'. Only 14% gave a low value for the user experience.

9.4.18 What is your general opinion of the FurnIT platform?



This last question could be used as a summary of the feedback. 90% things that the platform is interesting.

9.5 Comments

9.5.1 Best of the FurnIT-SAVER project

Most of the polled said that the best of the FurnIT project is:

- Visualizing furniture using Virtual / Augmented reality

- Visualization in the real living space
- Flexibility
- 3D view
- Easy use
- Maybe useful for people who are not professionals in fields of design, architecture, etc.
- Drag and drop system is easy to use

9.5.2 Worst of the FurnIT-SAVER project

Summary of what polled said:

- Limited product palette / lack of furniture / accessories
- The interface is not very intuitive. It's not clear what you are supposed to do and there aren't a lot of instructions. I haven't found the delete item button anywhere, nor did I figure out how to put things on the walls or hang lamps on the ceiling
- Needing the special googles for virtual reality visualisation
- Recommendor is unresponsive or poorly responsive
- Extremely un-intuitive interface.
- unattractive surface
- I have missed delete button
- As an architect i prefer other options for planning and visualising my designs - even the simple ones like Google Sketchup - which is extremely easy and intuitive to use and therefore very suitable also for non-professionals

9.5.3 Suggestions of the polled people

- Not only saving time, it's checking suitability of furniture for one's space and marketing of the included brands that's even more interesting
- I think the idea is brilliant, but as mentioned before there are quite a few things that are still confusing for the user
- I hope I'm not offending you by expressing my strongly negative opinion on the platform. I tried using the interface and gave up after 10 minutes due to very complex and not at all logical interface. After that i wanted to give an opinion/suggestions about it and complete this survey, but it again took me a lot more time to get to the end than i would like it to be. I believe both the platform and the survey are too demanding on the user (or his time), so the platform will rarely be used by professionals. Even though 3D programs are a must these days, you are competing with software like Sketchup, which is extremely user-friendly. Some top notch furniture companies make 3D models of their furniture that can be freely downloaded (via their website or Sketchup's 3D Warehouse) and used in any 3D program the user likes (Sketchup, 3DSMax etc.). Rather than making another 3D

program (that just cannot compete with others) i suggest to take similar approach and use existing software and focus on the models of furniture and accessories

9.6 Conclusions

First opinion by side of manufacturers and their sales person is that FurnIT platform could be good additional tool for attracting the customers and giving them new way of visualization of the products.

Especially AR is very interested for them, possibility to share accommodations between sales person and customers online and also that manufacturer could build up their own catalogues online and then to share access to purchasers and stores to use in their selling process.

But at the moment they do not see possibility that FurnIT could be used as main selling channel or selling platform.

If manufacturers will »feel« the platform as something useful technology for their purpose and also quite simple to work with, then probably we could expect that the final result of the project will be achieved – FurnIT SAVER platform in everyday use by companies.

But, for be competitive we must assure quality of uploaded 3D items. Existing models have lack of enough quality surface (texture,..) to be »photo realistic« as competitive similar web platform.

We have notice also one advantage – our platform can offer/show different furniture items together, while IKEA or iStaging for example offer »specialized« VR/AR – for example; separate app for bathrooms, living rooms,.. or AR visualization of one piece of furniture at the same time.

Additional suggestions about the FurnIT-SAVER platform, by side of project partner WIC:

User view:

- Option/command to »lift« items. For example shelves on wall.
- Short instructions (tutorial) to work with platform.
- Option to show furniture items listed below working area also in grid view (not only in one row)
- In VR and AR please foresee also option to »switch« between variants of same furniture (dimensions, colours,..)
- Button »add to basket« doesn't work.
- Also option to change colour of wall will be fine (not just white)
- There should be implemented also option to confirm and send final accommodation of selected items to manufacturer (.json file + specification of selected furniture pieces). We should take into account case if customer select items from different manufacturers. (Automatically generated separate specification for each

manufacturer?). What about delivery at same time after that? At least some explanation or warning should be sent to customer that they order to different manufacturers,..)

- In browsers like Edge and IE, VR not works smoothly but with slightly delay of movements.
- »Search« option missed – to find furniture items by keywords/tags
- Two solutions are really unacceptable:
 - o All products of all different colours are to be added separately.
 - o All products of all different colours are shown on same level that is very confusing. Client should have possibility to choose product and then colour of this product.

Manufacturer view:

- Short instructions for work with platform (upload, edit, assigning colours/texture on surfaces, different variants,..)
- How we can add/edit list of options like main colours, material list, type of rooms
- Suggestion: to open special catalogue with generic 3D models of accessories (to »decorate« VR preview to be more realistic). These items will not have price and options of variants and will not be possible to include in »shopping list« or final »specification for order«.

Comments on platform:

- Add new item: after adding 3D model and textures, the up load is to slow – if you are uploading 100 new models of furniture, it takes a lot of time
- After you insert all necessary data about uploaded 3D furniture at tabs with Furniture attributes, and then press save button the last saving procedure it to slow.
- The furniture should appearing in menu in groups (low cabinets, medium cabinets, high cabinets, cabinet whit glass, wall cabinets, ...)
- Somewhere in the platform the Help button is missing
- In entering form (when you upload 3d models), navigation between tabs should be possible also simply by selecting proper tabs not only with button Prev and Next
- it would be very good, if a manufacturer could upload just one 3D model of same chair and then to change the texture of used upholstered fabric (example: we have a chair made of oak, with green upholstery and the customer wants the same chair made of beach with red upholstery – quick changing of colours and textures). Now searching and inserting the same model of chair with different upholstery texture take too long time.
- FurniT platform should allow or. suggest (semi)automated accommodation if client for example need to accommodate a hotel restaurant with same tables and chairs. The system should calculate and suggest how many tables with chairs should be possible in given layout.
- If the table is extensible, both variants should be in catalogue under same 3d model using different configurations.

- All the products are listed in bottom menu in one row. It would be better if there were listed 15 models in one page.
- menus for searching from user side and also manufacturer side should be better organized and have more searching options
- It is good to have such a 3D model database, which is always updated and could slightly replace the brochures.
- FurnIT platform could be useful as additional promotion channel and also advanced virtual visualisation possibility. Sales persons missed possibility to add to basket option that generates some specification for preparing the offer (in standard selling process)
- Also possibility that client have on disposal 3D furniture/catalogues of different manufacturers in the same VR/AR platform is great. Especially if furniture are complementary each other.

10 Scenario 5 – Furniture manufacturers

10.1 Initial considerations

The validation with the furniture manufacturers was a little bit different than with other scenarios. On one hand, we explained them the platform as a normal user to show the possibilities of the virtual and augmented reality environments: defining the room layout, adding furniture pieces, moving them, saving the combination in their personal area, and using the augmented reality App.

In addition, we showed the manufacturers how to upload the furniture models into the platform, entering to the virtual reality environment as a furniture manufacturers.

Then, the manufacturers had 2 different points of view: as a users and as a manufacturers.

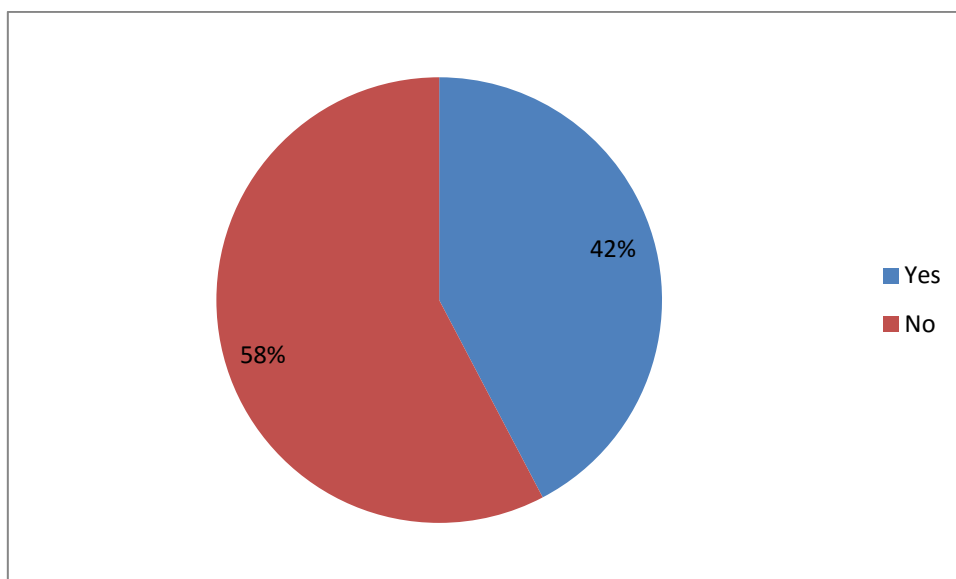
10.2 Participants

26 manufacturers have participated in the scenario 5, from 2 different countries, Slovenia and Spain.

Company	Country
Alples	Slovenia
Murales	Slovenia
Gonzaga-pro	Slovenia
IB-CADDY, d.o.o.	Slovenia
Donar, d.o.o.	Slovenia
Klun ambienti, d.o.o.	Slovenia
Lina Design	Slovenia
Mlinar&Mlinar	Slovenia
Salco pohištvo	Slovenia
Žakelj, d.o.o.	Slovenia
Hit Preless, d.o.o.	Slovenia
Akron	Slovenia
Kavčič, d.o.o.	Slovenia
Lesimpex	Slovenia
Melu	Slovenia
Mizarstvo Bolčič	Slovenia
MZG	Slovenia
Mizarstvo Dermastja	Slovenia
Podgorje	Slovenia
Tapetništvo Novak	Slovenia
sillera verges	Spain
Mobenia	Spain
Bustper	Spain
Madersenia	Spain
MD Mobles	Spain
Tobisa	Spain

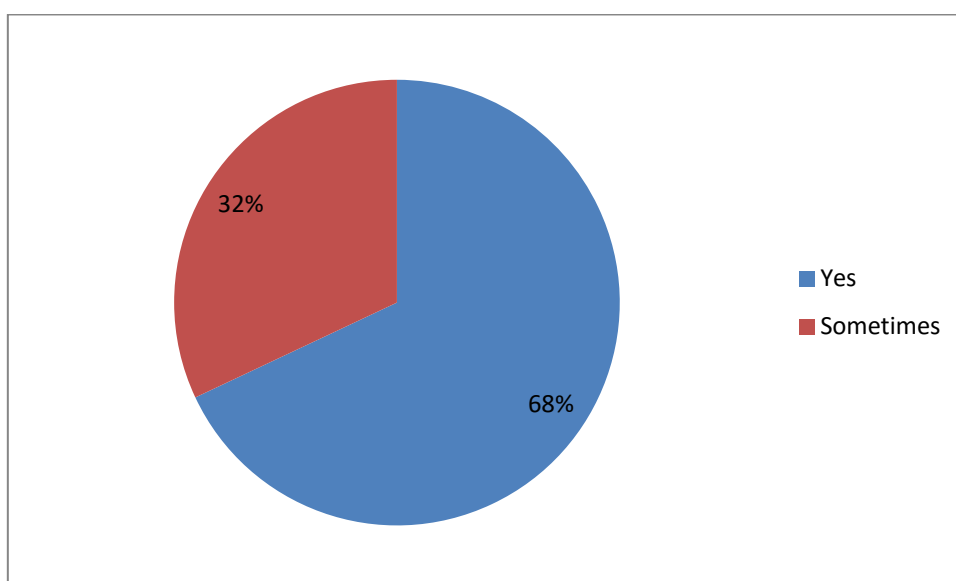
10.3 Feedback analysis

10.3.1 Does the company sell furniture on-line?



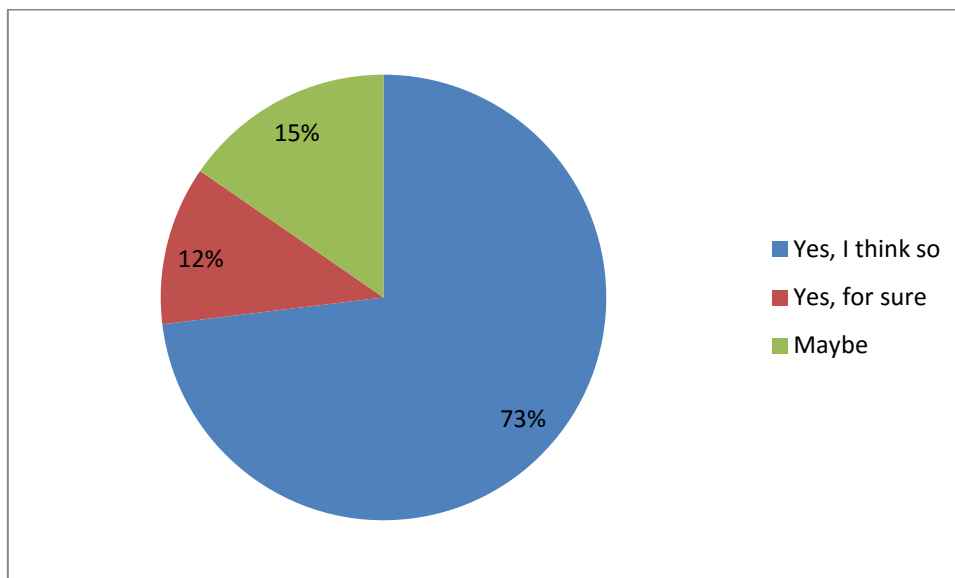
More than 40% of the polled are already selling furniture via Internet.

10.3.2 Does the company create 3D models for its products?



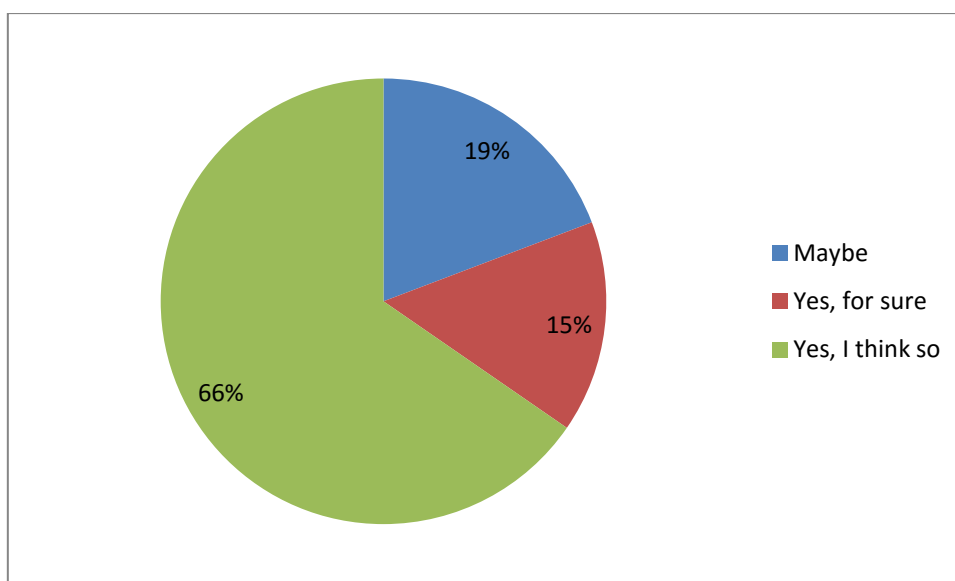
Almost 70% say that they create models for its products, but it was not easy to find manufacturers that want to include their models in the platform. Probably they create them and, in several cases, the models are not compatible with the file extensions needed by the virtual reality environment.

10.3.3 Do you think that the FurnIT Platform would help you in the sales process?



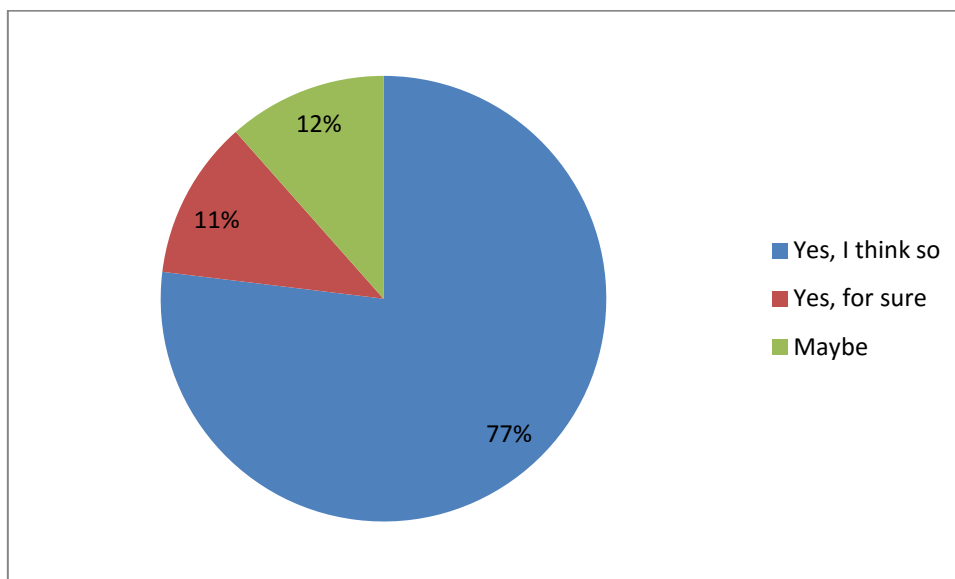
85% of the polled manufacturers said that the FurnIT platform will help them in the sales process and the other 15% answered "Maybe"

10.3.4 Do you think that the FurnIT Platform would help your retailers (stores) in the sales process?



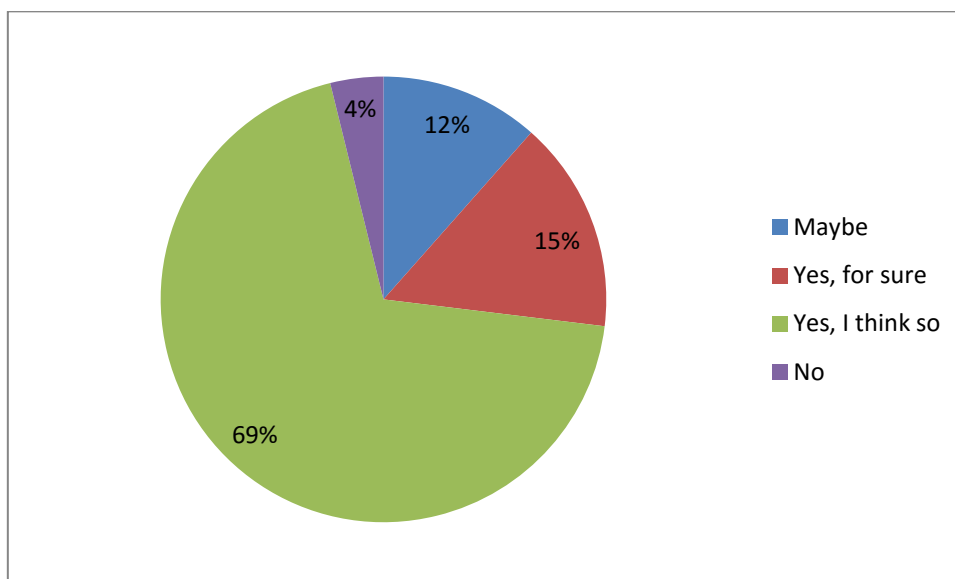
More than 80% of the manufacturers said "Yes" and 19% "Maybe"

10.3.5 Would you recommend the FurnIT platform to your clients/retail channel (stores)?



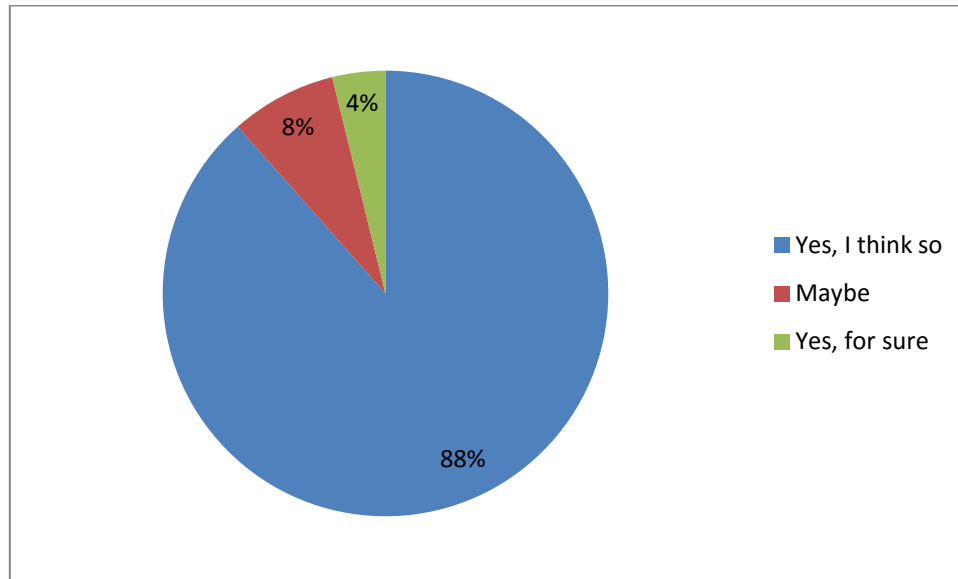
88% of the testers answered the positive answers, and 12% said "Maybe"

10.3.6 Would you use the FurnIT platform to sell directly to the final client (people who wants to buy furniture)?



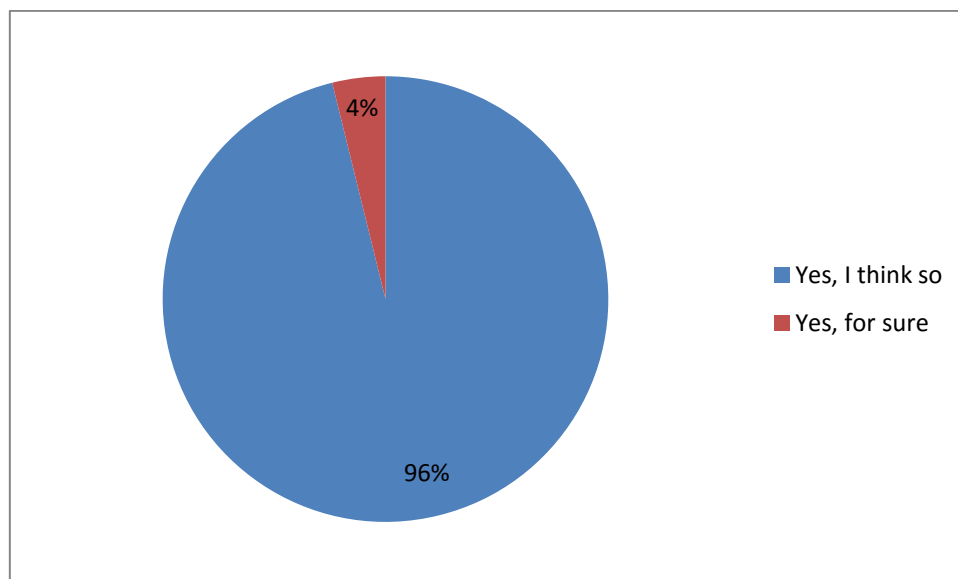
More than 80% said "Yes" and 12% "Maybe"

10.3.7 Would you use the FurnIT platform in the future?



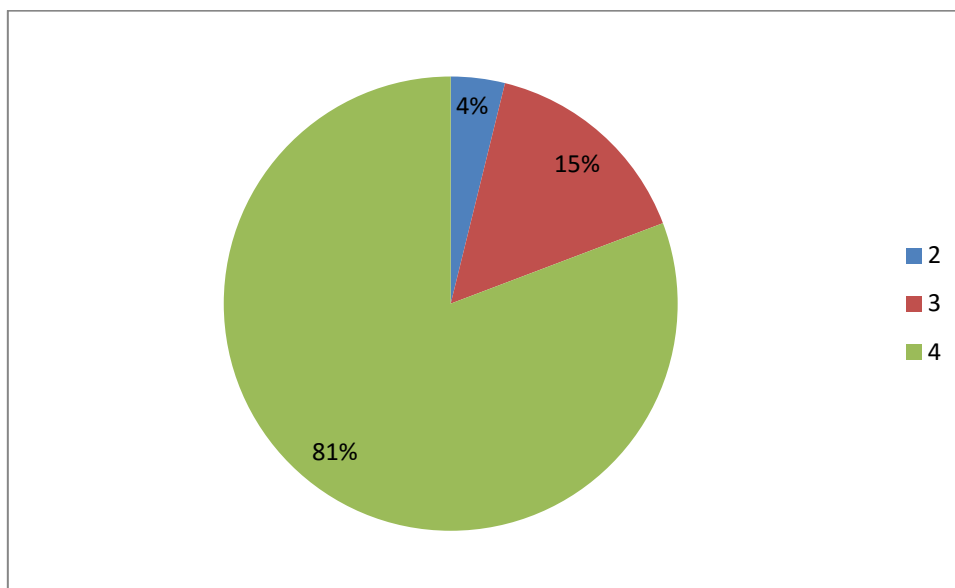
More than 90% of the polled said “Yes”, and only 8% said “Maybe”. Nobody answered “No”.

10.3.8 Would you recommend the FurnIT platform?



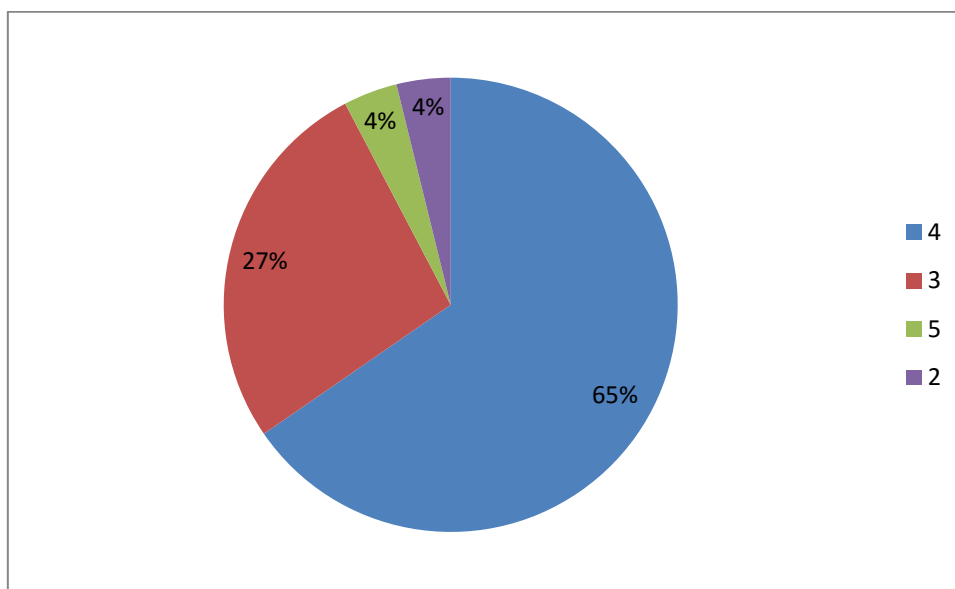
The “Yes” option was 100% of the polled people. Nobody selected “Maybe” or “No”

10.3.9 On a scale of 1-5, how satisfied are you with the platform content organisation? (1- not satisfied, 5 - very satisfied)



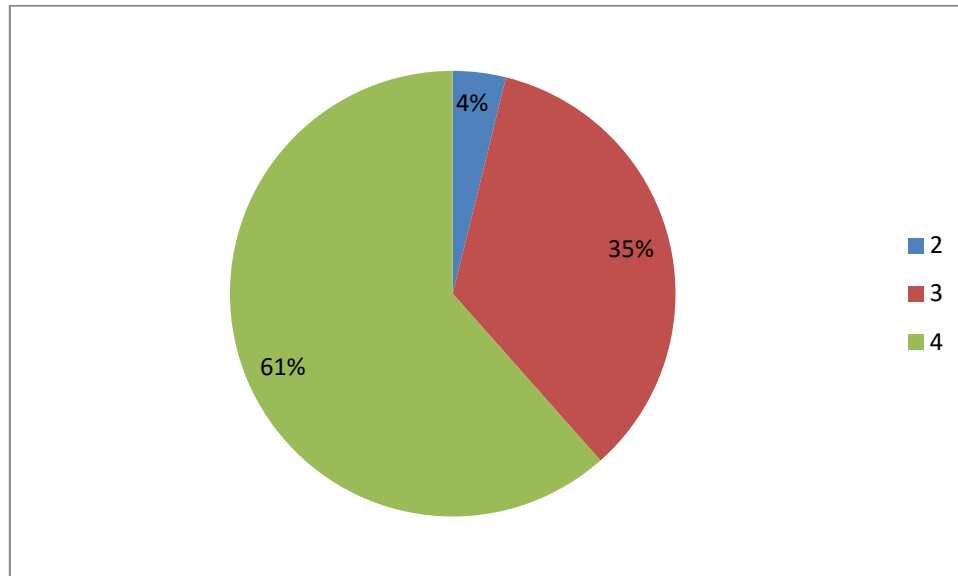
Taking into account that the value '3' is neutral, 81% of the polled are satisfied with the platform content organisation. Only 4% are unsatisfied with this indicator.

10.3.10 On a scale of 1-5, how intuitive is the FurnIT platform content organisation? (1- not intuitive, 5- very intuitive)



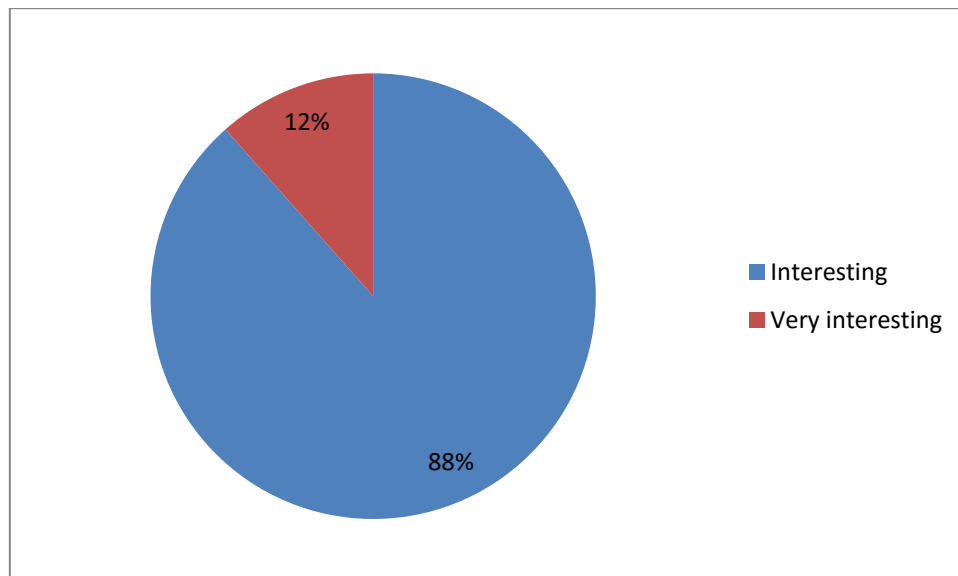
65% of the polled people said that the content organisation of the platform is intuitive. Only 8% of the polled selected negative values ('1 and '2').

10.3.11 On a scale of 1-5, assess your user experience (1 - very bad, 5 - very good)



61% of the polled answered '4'. Only 4% gave a low value for the user experience.

10.3.12 What is your general opinion of the FurnIT platform?



This last question could be used as a summary of the feedback. 100% of the polled manufacturers said positive answers.

10.4 Comments

10.4.1 Best of the FurnIT-SAVER project

Most of the polled said that the best of the FurnIT project is:

- Visualizing furniture using Virtual / Augmented reality / 3D view

- Visualization in the real living space
- Online control of your offer
- Good accessory
- I don't know, I haven't seen other platforms to compare
- Use simplicity / Easy to use
- To integrate the furniture catalogue with the virtual and augmented reality and to be able to show the clients how look their projects

10.4.2 Worst of the FurnIT-SAVER project

Summary of what polled said:

- Limited product palette / lack of furniture / accessories
- Too narrow limits of groups (functions, colours, ...)
- Slow
- Small drawing space
- Lack of accessories (lamp, pictures)
- There aren't lots of furniture models in the platform, yet
- It is a very good tool for a first contact with clients. Maybe, for big projects it is not useful...
- To upload the furniture piece by piece instead of a massive upload
- The furniture quality seems not to high

10.4.3 Suggestions of the polled people

- Good luck
- We will see what happen with the platform, the number of manufacturers that will use it, and the adaptation to our business-model that do not use the furniture shop nor the domestic customers
- There are some feedback questions that do not apply with our profile (contract channel) because we develop custom-made projects with hotels

10.5 Conclusions

The furniture manufacturers know different applications for the furniture sector, and they are open to experiment a new one. But they had bad experiences of promising applications that, at the end, failed. For this reason, they take care with all new possible tools because of their previous experience.

Even 68% of the manufacturers said that they create 3D models for their products, the “presumed” models they create can't be uploaded in the virtual reality platform because the file format is not compatible. In most cases the creation of these 3D models is subcontracted to external companies (designers and/or architects) to develop “digital images” or “renders”

for their catalogues. Usually, these external companies only deliver the furniture manufacturers the renders instead of the 3D models.

85% of the polled think that the platform will help in the sales process, and will help the retailers as well. None of them selected one negative answer to the question about recommend the platform to their clients/retail channel (more than 85% said “yes”) and 12% only, answered “Maybe”.

The furniture manufacturers general opinion of the FurnIT platform is very good: 88% selected “Interesting” and 12% “Very interesting”.

One of the most impressive thinks for the manufacturers was the augmented reality app because they already know other possibilities similar to the virtual reality environment.

From the manufacturer point of view, they don’t want to upload piece by piece because is a tedious and boring task, and when they create a new furniture catalogue they should upload lots of models, and one by one is not useful. In addition, they would like to upload one unique model of one furniture piece (one table, for example), and assign all the possibilities to this model (size, colours, finishes, ...).

“Product returns are a concern for my business” is a problem for them because problems generated during the furniture transportation and/or assembly at the final place (dents, hits, marks, ...), but not because the final client (people that buy the furniture at the retailer) do not like the furniture at home once assembled or is unsatisfied.

Selling directly to the final customer using Internet and by-passing the retailers network is a big problem for them. They don’t want to sell directly using their web-site because they don’t want to annoy their retailers (that sell pieces from several furniture manufacturers), but they agree in using another Internet platform (like FurnIT, for example) to sell their furniture to the final client.

As a final conclusion, to highlight that one of the furniture manufacturers who has participated in the test working in the “contract channel” (hotels only) asked for using the platform (even using the prototype) in their nearest business activities. They said that currently they develop renders (“digital images”) to show the furniture for the hotel. Then, they show the renders printed of in a presentation to the hotel owners. But, with the possibility to define the room layout of several hotel rooms, and furnish them using the 3D models that they need to develop the renders, they increase a lot the possibility to sign the contract with the hotel owner once they use the virtual reality environment. In addition, when they show how the furniture combination will look in the real hotel rooms using the augmented reality application, they think that the sale will be already done.

10.5.1 Main comments on FurnIT-Saver platform given by Gonzaga company (manufacturer, sales person):

- Batch Import data from excel file (table) to FurnIT database missed
- On the VR platform entry page there is no option for direct import JSON file (before selecting the style and room).
- AR – looking at Tablet it often happens that the visualized furniture is blinking or not stable (looking in real space – room)
- The menus for selecting the doors and windows, recommendator and bottom menu is covering the drawing space when PC/tablet have lower resolution – should be placed somewhere else or developed in “responsive” web design.
- The space for recommended furniture is too big (the space should be shortlisted)
- This platform allows furnishing and AR visualisation on distance, Salesperson can go to customers home and another salesperson in salon can support them remote by preparation of the VR accommodations...

11 Test with furniture salespersons (scenario 6)

11.1 Initial considerations

From the consortium point of view, the different validation scenarios are very important to know the opinion of the project potential users: purchasers from different fields (domestic and professional) and manufacturers. But we miss another type of user: furniture salespersons who works in a furniture shop and/or in a showroom.

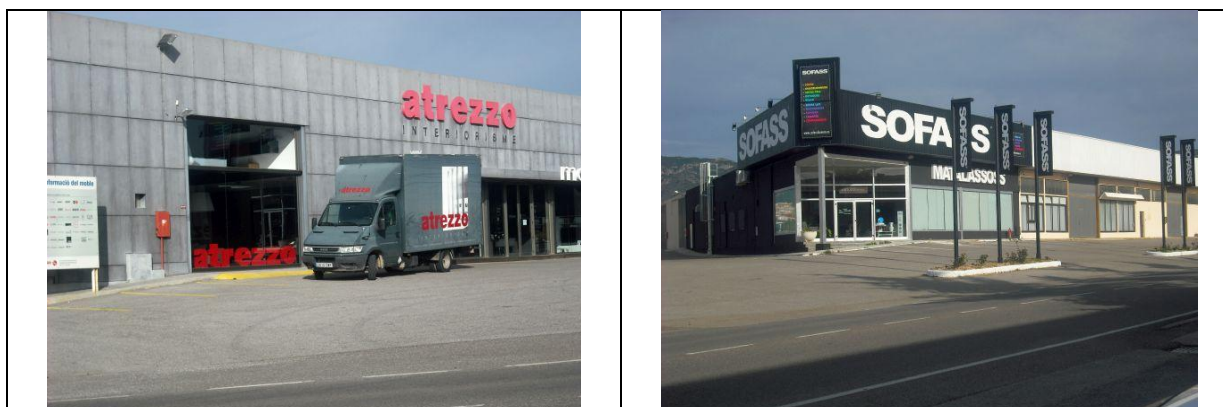
The opinion of the furniture salespersons about the developed tools in the FurnIT-SAVER project is very important because they are in contact with the furniture purchasers that enter in the shops.

For this reason, the feedback of this set of potential project users must be taken into account and will be relevant to know what they think about.

11.2 Participants

The participants are furniture salespersons of several furniture shops located in La Sénia city, the most important cluster of furniture manufacturers and retailers in Catalonia (Spain), and in Slovenia.

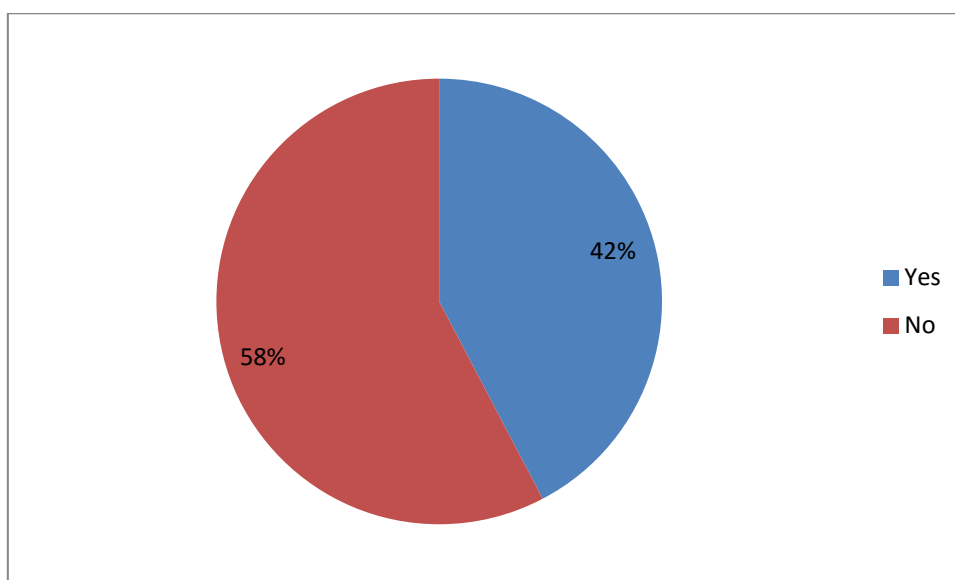
Company	Country
Decorsenia	Spain
Atrezzo Interiorisme	Spain
Mobles Bustos	Spain
Isabel Miró	Spain
Oportunissimo	Spain
Star Center	Spain
Abstract	Spain
Senia Mobel	Spain
Arvet	Spain
Alpes	Slovenia
Gonzaga pro	Slovenia
Murales	Slovenia





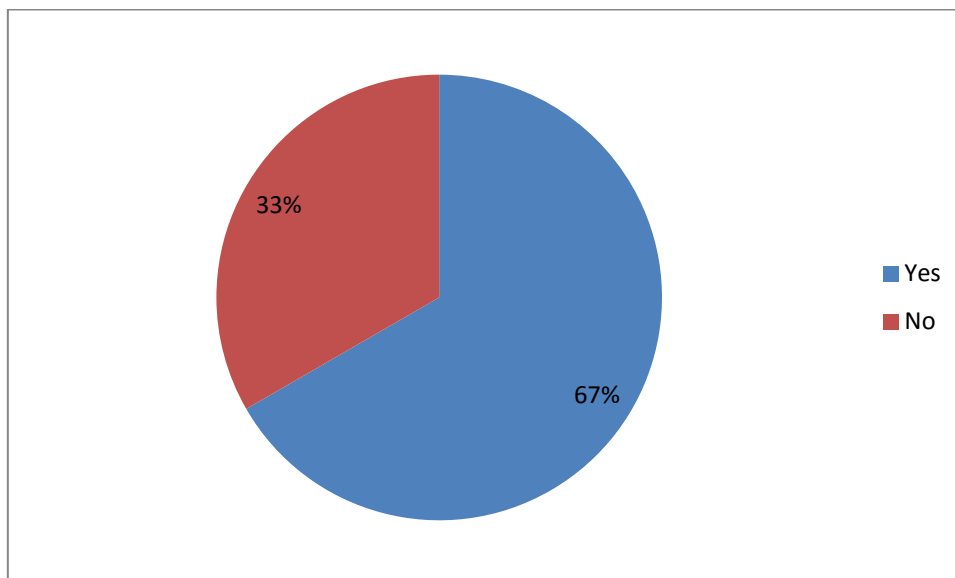
11.3 Feedback analysis

11.3.1 Do you use the PC and/or tablet/iPAD as a support tool for your sales?



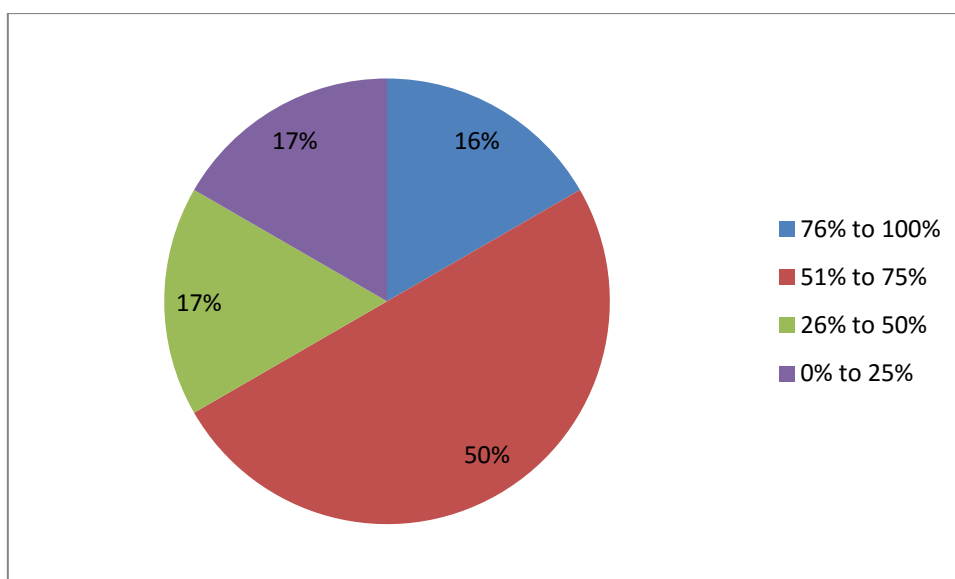
It is very relevant that more than 50% of the polled are not using support tools for their sales.

11.3.2 Does the company sell furniture on-line?



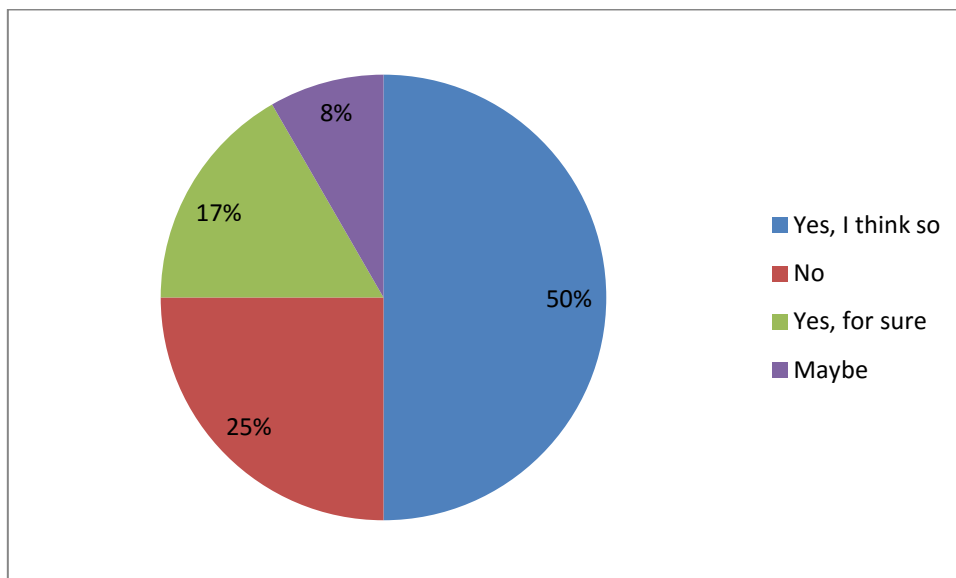
On the other hand, more than 50% sell furniture online, using their own website and social networks (Facebook, ...).

11.3.3 In your opinion, how many people look for furniture on the Internet before coming to the shop?



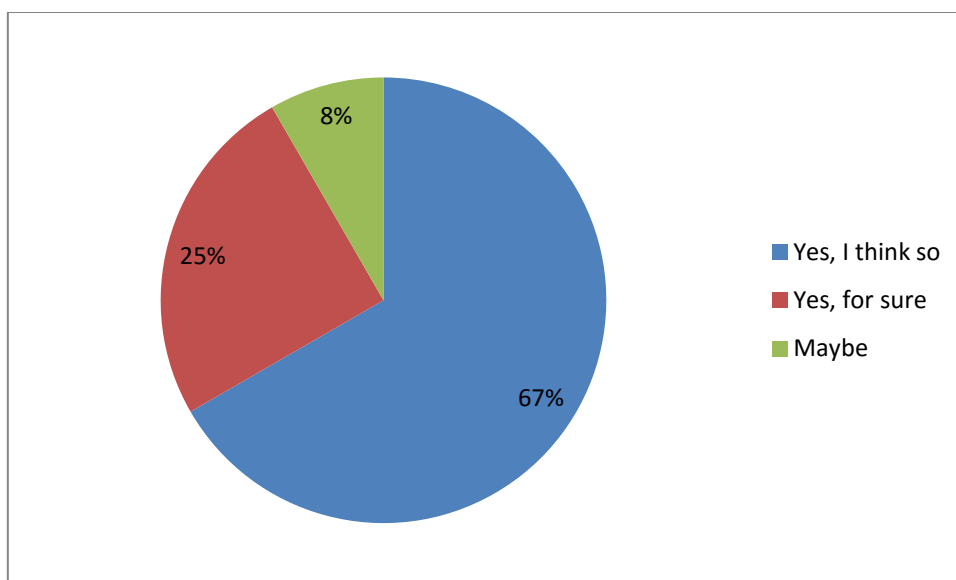
More than 75% of the polled think that between 51% and 100% of the people who enters in the furniture shop looks before on the Internet.

11.3.4 Do you think that the FurnIT Platform would help you in the sales process?



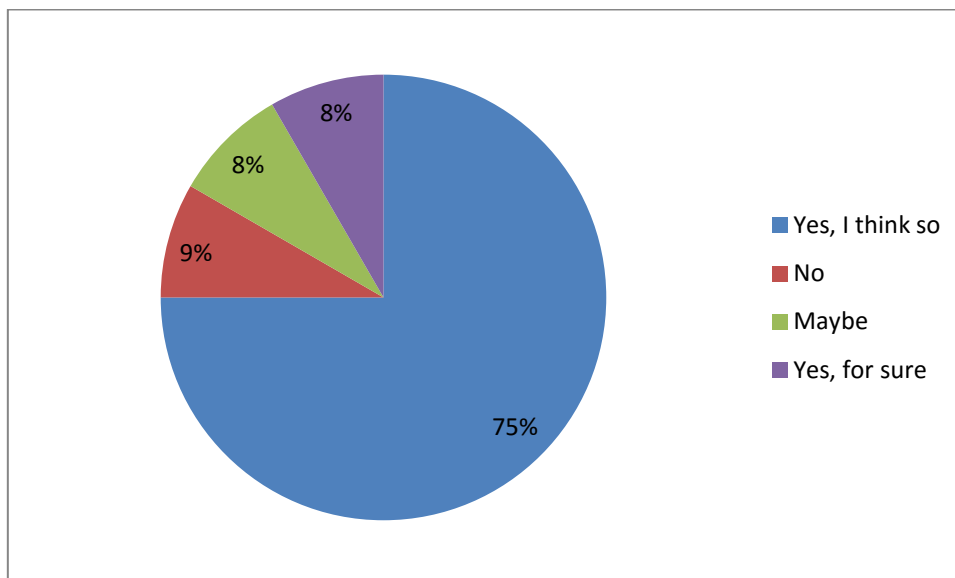
67% of the polled choose "Yes", but 25% choose "No".

11.3.5 Would you recommend the FurnIT platform to your clients?



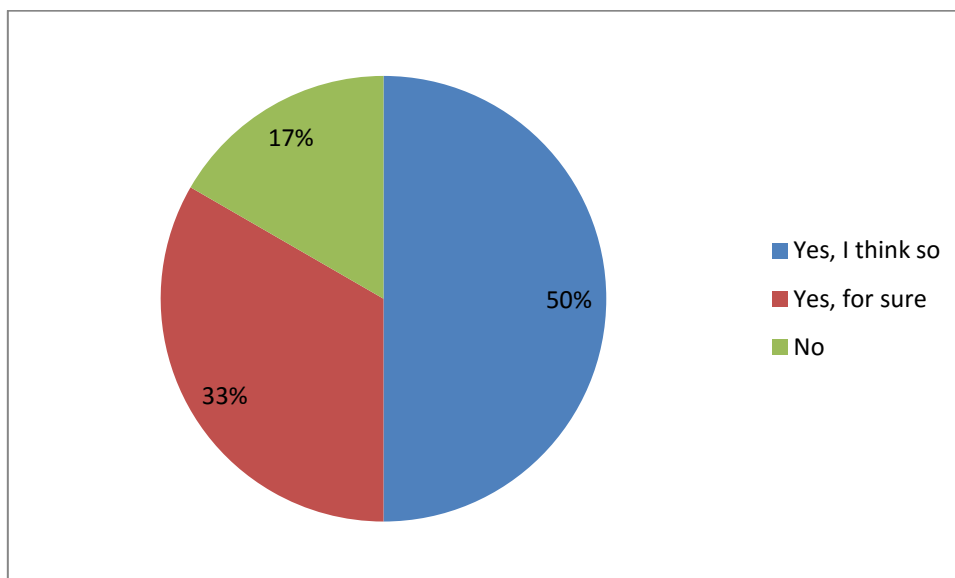
Nobody said "No", and only 8% said "Maybe".

11.3.6 Would you recommend the FurnIT platform to your providers?



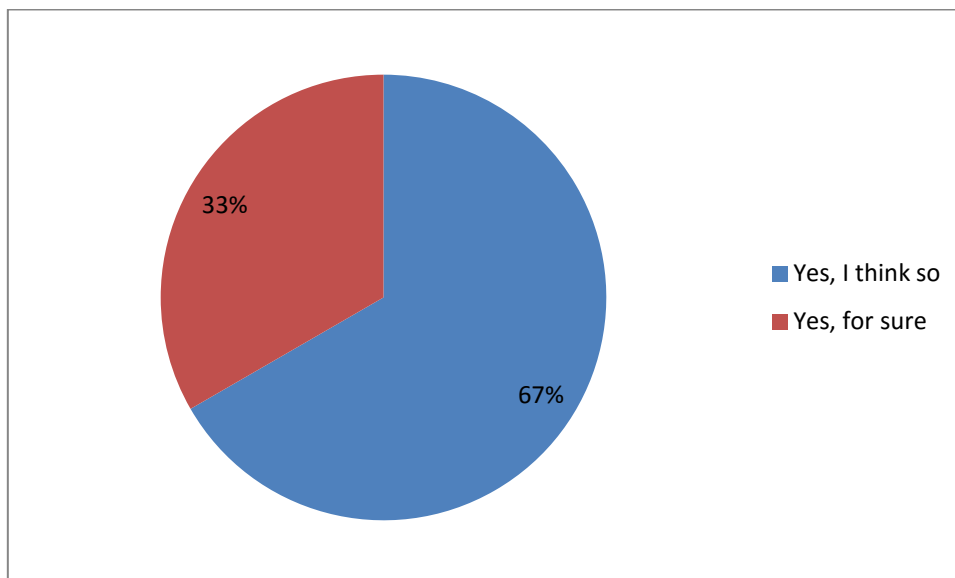
More than 80% would recommend the platform to their providers (furniture manufacturers), and only 9% said “no”.

11.3.7 Would you use the FurnIT platform in the future?



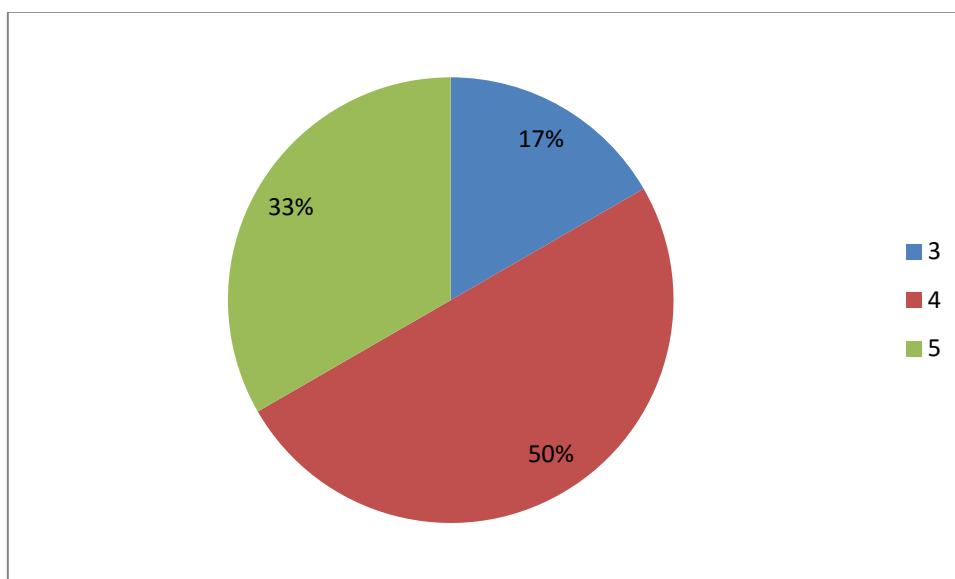
More than 80% would use the platform in the future, but 17% “no”.

11.3.8 Would you recommend the FurnIT platform?



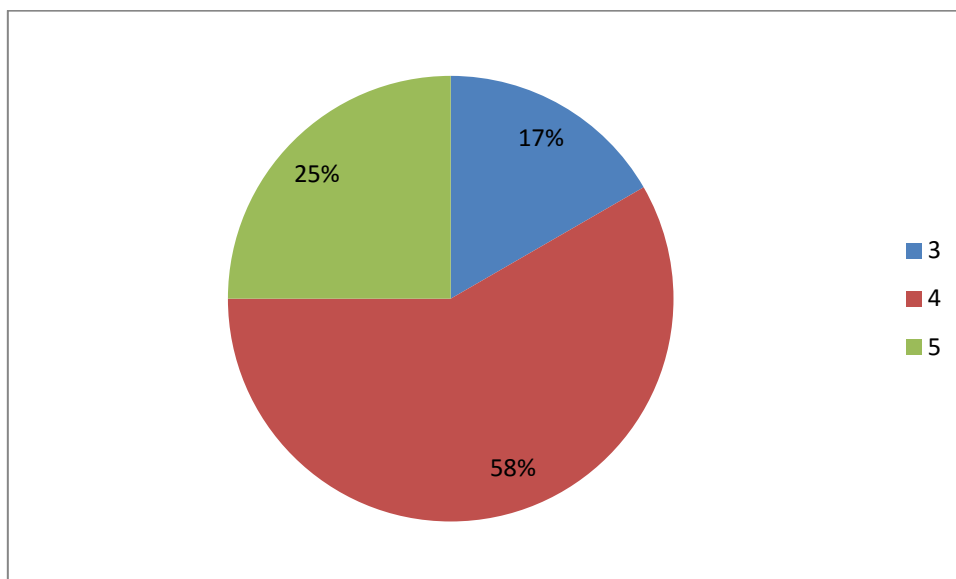
All the answers are positive.

11.3.9 On a scale of 1-5, how satisfied are you with the platform content organisation? (1- not satisfied, 5 - very satisfied)



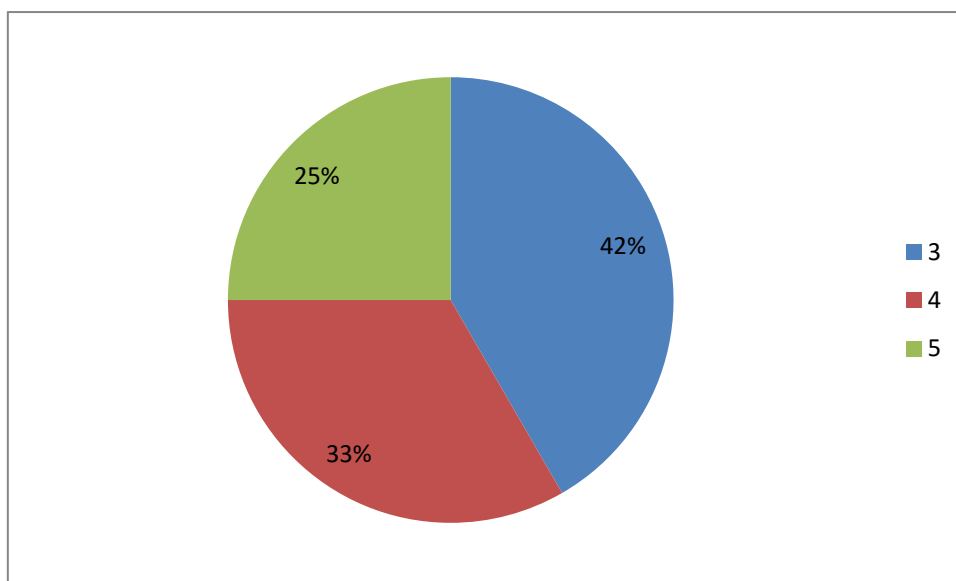
Taking into account that the '3' value is neutral, the positive answers arrive to 83%.

11.3.10 On a scale of 1-5, how intuitive is the FurnIT platform content organisation? (1- not intuitive, 5- very intuitive)



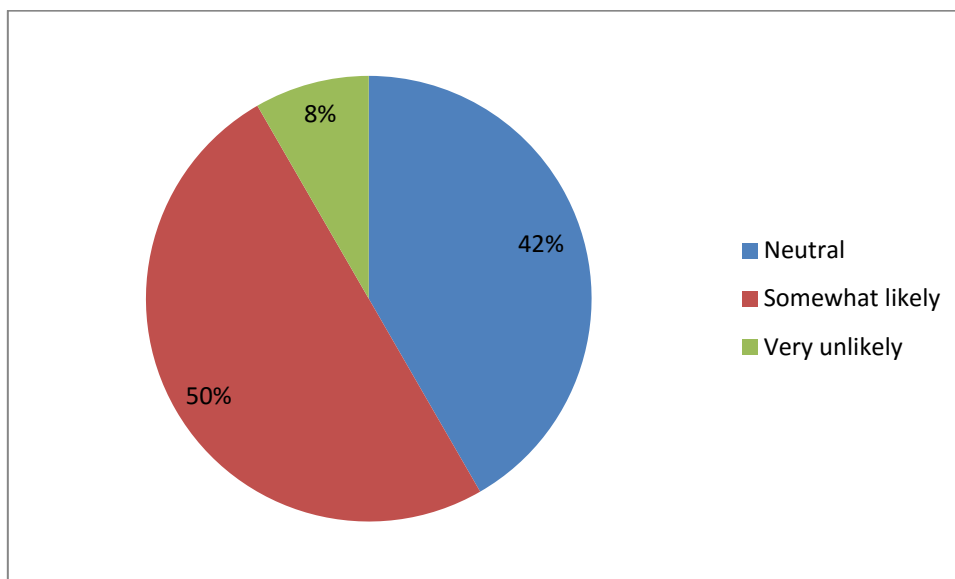
Taking into account that the '3' value is neutral, the positive answers arrive to 83%.

11.3.11 On a scale of 1-5, assess your user experience (1 - very bad, 5 - very good)



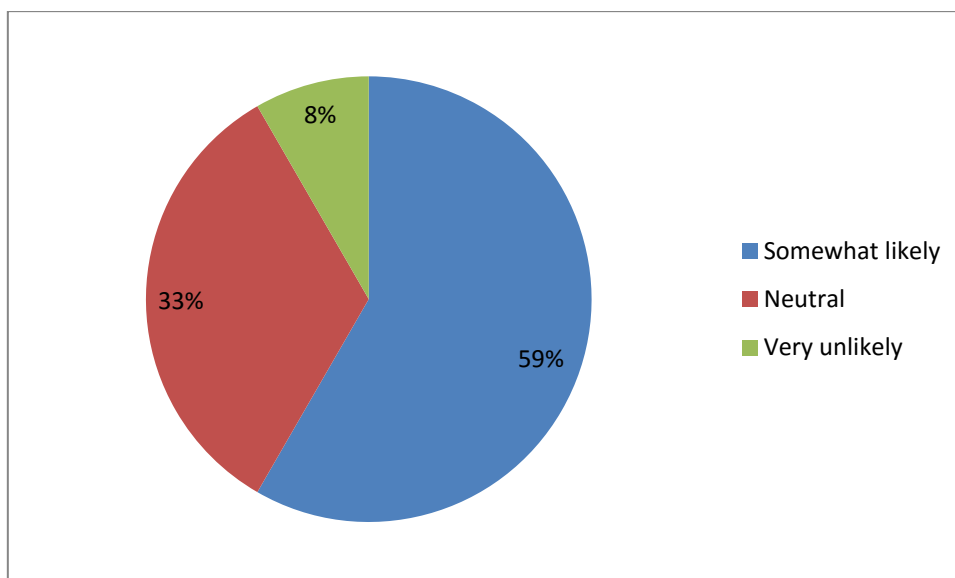
Taking into account that the '3' value is neutral, the positive answers arrive to 58%.

11.3.12 How likely is it that the number of orders improve using FurnIT in the store?



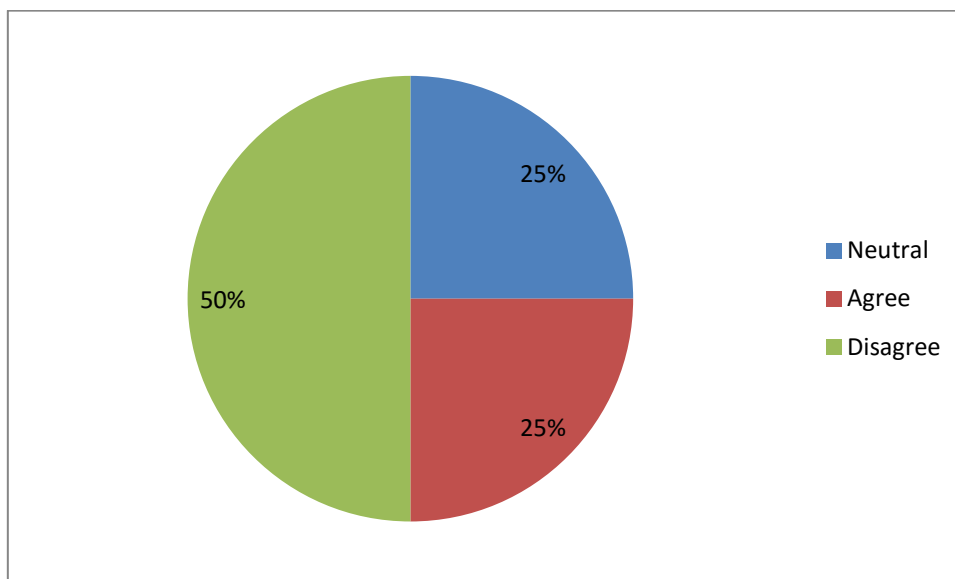
Despite the salespersons are open to these new tools and applications, they think that the purchasers that enter in their shop already know what they want to buy. For this reason, it will be very difficult that they will buy more than foreseen, even if the support tools are very visual.

11.3.13 How likely is it that this client satisfaction improves by using FurnIT in your shop?



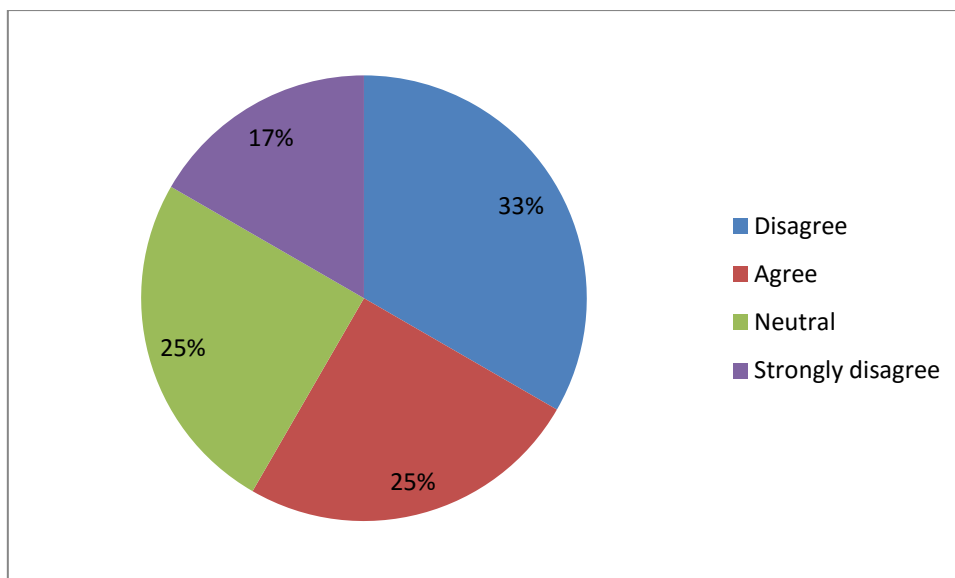
Almost 60% of the polled think that the client satisfaction will improve using the tools developed in the project.

11.3.14 "FurnIT will allow me to attract orders of higher values." To which degree do you agree or disagree with this statement?



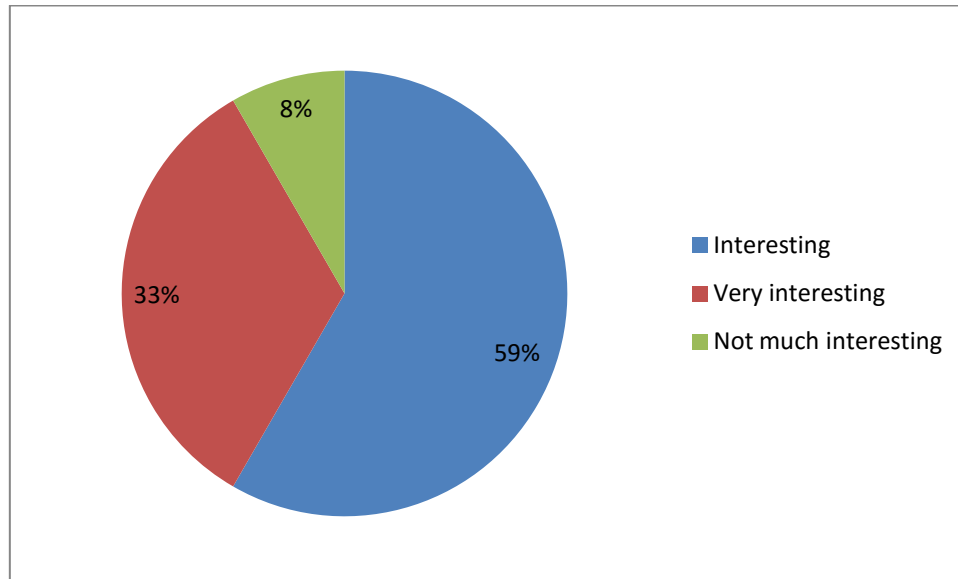
In the same line than the order improvement question, the salespersons think that the value of the orders will be the same using the FurnIT-SAVER project tools, because the purchasers already know what they want to buy before entering to the shop.

11.3.15 "FurnIT will help me to significantly shorten the time it takes me or my salesperson to close a deal with a client." To which degree do you agree or disagree with this statement?



There are different opinions and answers.

11.3.16 What is your general opinion of the FurnIT platform?



More than 90% of the polled think that the FurnIT environment is Interesting and Very interesting. Only 8% said that is “*Not much interesting*” (with the current stage of development).

11.4 Comments

11.4.1 Best of the FurnIT-SAVER project

Most of the polled said that the best of the FurnIT project is:

- Augmented reality
- See how the furniture will look at home
- Easy to use
- Virtual and augmented reality visualisation
- To build the room layout is very intuitive
- It is a great help at sales

11.4.2 Worst of the FurnIT-SAVER project

Summary of what polled said:

- The quality of the renders/not so photorealistic as should be
- The platform should have lots of furniture and manufacturers

11.4.3 Suggestions of the polled people

- We have used several tools to show the people how the furniture will look at home: PlanIT, DecoDesign, and now SketchUp (more flexible application).
- We are already using one 3D tools to develop the projects

- I'm a designer and I'm using more precision applications. It could be interesting for the people that are not using the type of application I'm using.
- It will be very interesting for a normal furniture shop but, in our case, we sell very cheap furniture and the customers know that, and the sales are very fast.
- We usually go to the clients home to measure the room. With the Augmented Reality App, that allows to see the furniture in the exact place at home, perhaps the client want to change something (colours, measures, textures, ...). This could generate modifications to the orders...
- A lot of people who enter in the shop is grown-up (more than 40) and it could be very difficult to be able to use these kind of tools by themselves
- At this stage is not much interesting because we need more developments: to specify if there is certification with the manufacturer, if the application allows to work with special furniture (not standard measures, for example), the renders quality. AT this stage is not mature enough for our shop.
- I don't really know if it could be a very good tools because I can help the clients to furnish their accommodations and, once at home, they can look for the same furniture on the Internet or in another furniture shop. Then, all the time dedicated to these clients are useless and wasted.

11.5 Conclusions

Today, a big percentage of the furniture shops are using paper and pencil to show their clients how the furniture will look at the final location. These "tools" are quite far from the FurnIT-SAVER project developments, that allow to visualize the furniture in different environments in a very fast way.

On one hand, there are furniture shops that are using 3D and some other tools and applications (based on Information Technologies) to develop projects for their clients. Even though they haven't admitted, the time that they spend to develop these projects are very big compared to the time that the FurnIT-SAVER platform needs to define the layout and furnish one room. The shop that works with SketchUp admitted that they let the computer working all the night to develop the render with high quality.

But, on the other hand, they quality of the renders that they produce with these applications is quite far from the quality of the 3D models shown in the FurnIT platform.

In addition, it seems that the furniture purchasers don't need a very high quality of the furniture when using the virtual and augmented reality platforms. They want to "play" with the virtual reality environment, adding and removing pieces, changing colours, moving the furniture to different places and reorganizing the room several times to define one or more potential combinations.

Another important comment of the salespersons is the manufacturers database. They have tested with some other promising tools (visual environments) and the main problem is that few manufacturers only upload their models. This is a big and very important problem. When they have to create, with these promising visual environments, a combination with different furniture manufacturers, when one or more of them don't have the product in the environment database, they can't show their clients the complete combination, and only part of it. For this reason, they think that once most (or all) of the manufacturers have uploaded their furniture models in the FurnIT platform, they can value if this new project will be a success.

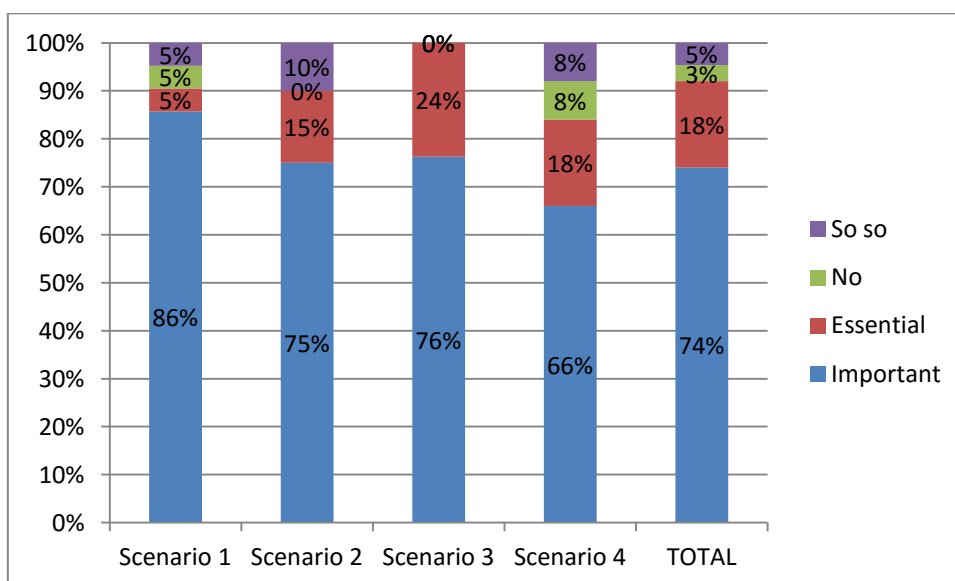
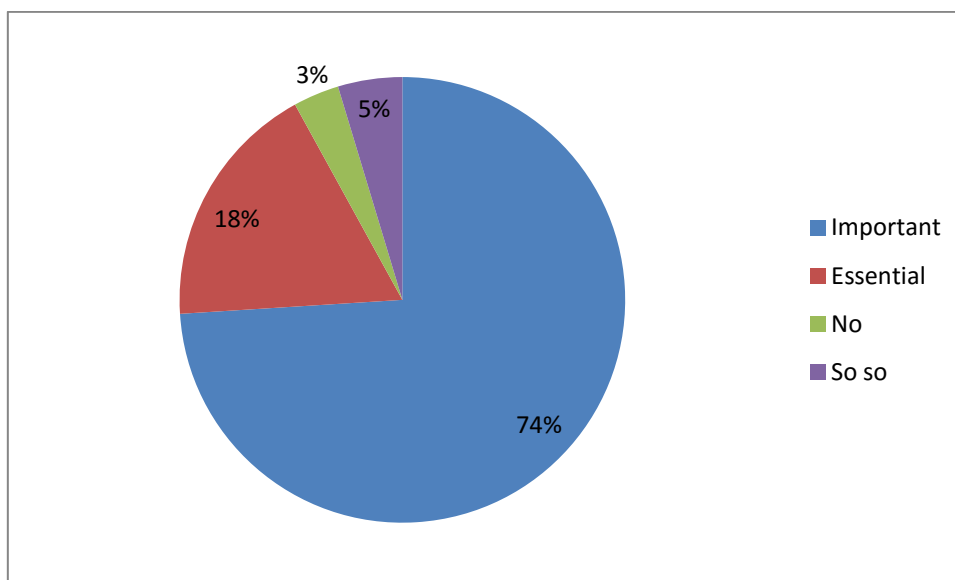
12 Comparing the scenarios

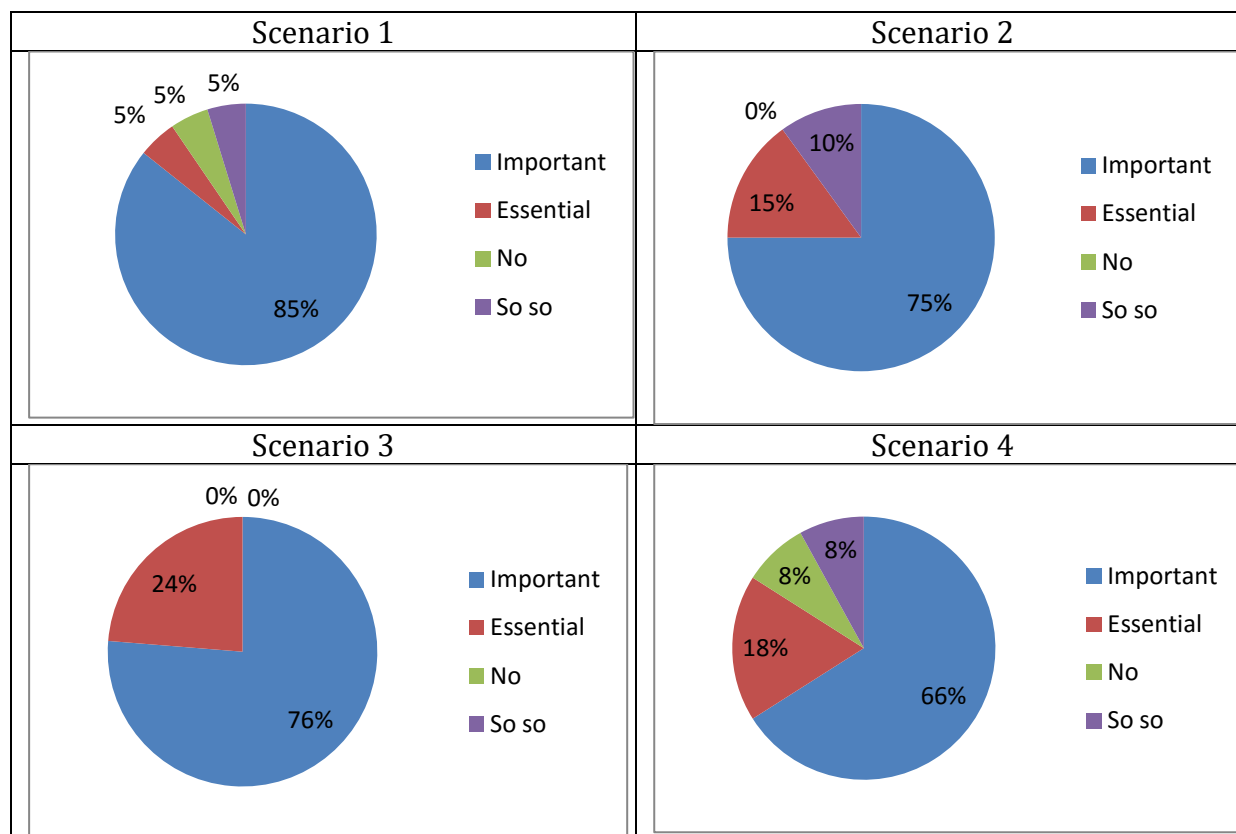
The purpose of this section is to compare all the different scenarios in order to detect if they are aligned and/or there are big deviations among them. For this reason, we will analyse several common questions only.

12.1 Feedback analysis

12.1.1 Do you consider important visualizing the furniture in the Virtual Reality Environment for your purchasing process?

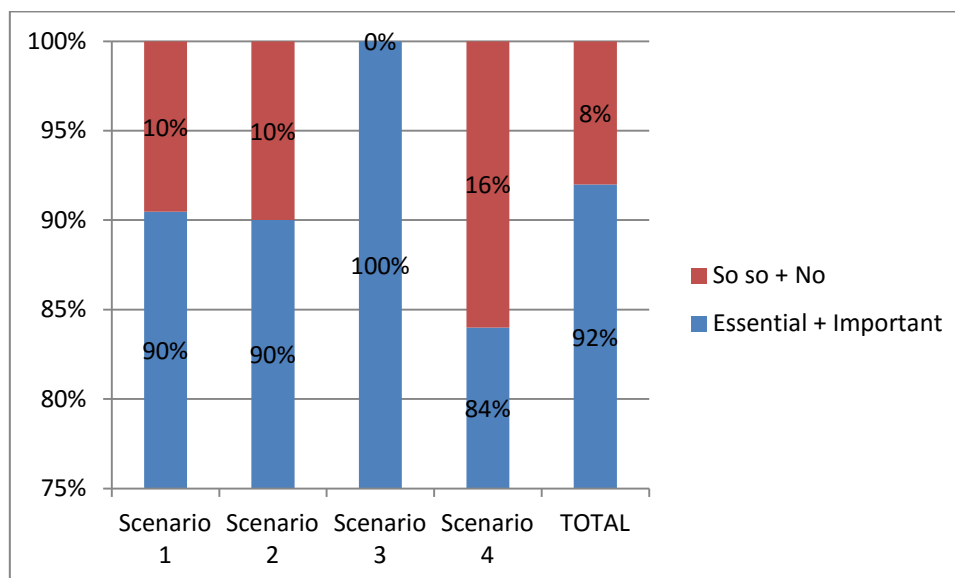
The results for all the first 4 scenarios together shows that more than 90% of the polled thinks that the Virtual Reality Environment is *“Important”* or *“Essential”*, and only 3% of the testers said *“No”*.





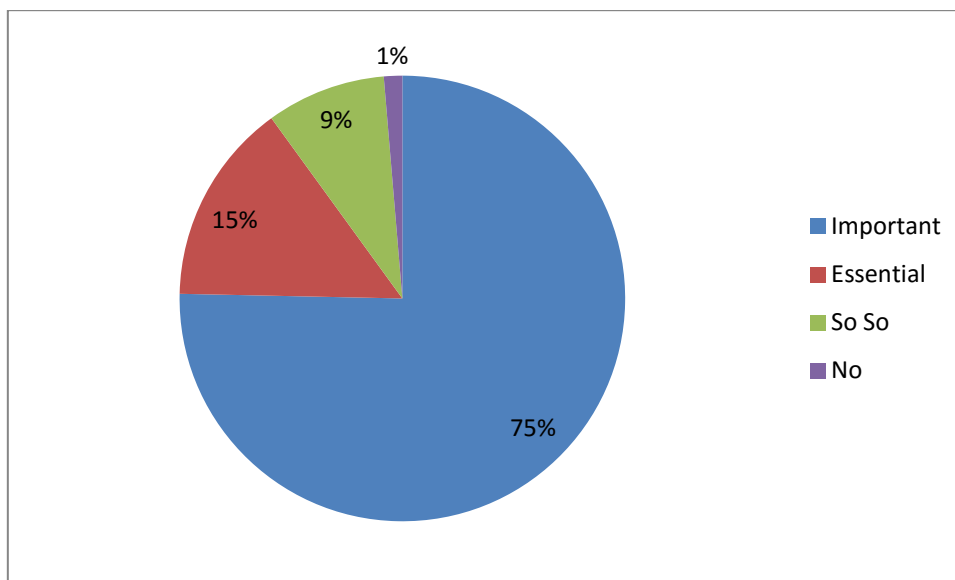
In the scenario 2 and 3 nobody choose “No” answer, and in the scenario 3 nobody choose “So so”.

Grouping “Essential” + “Important” answers and “Soso” + “No”, the results in the following table show that in the worst case, the 84% of the polled choose “Essential” + “Important”.

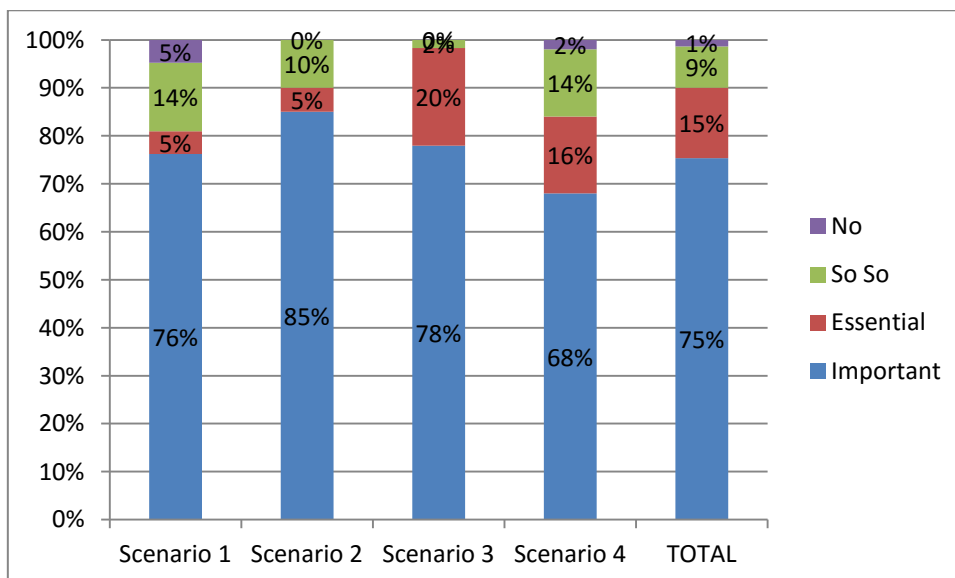


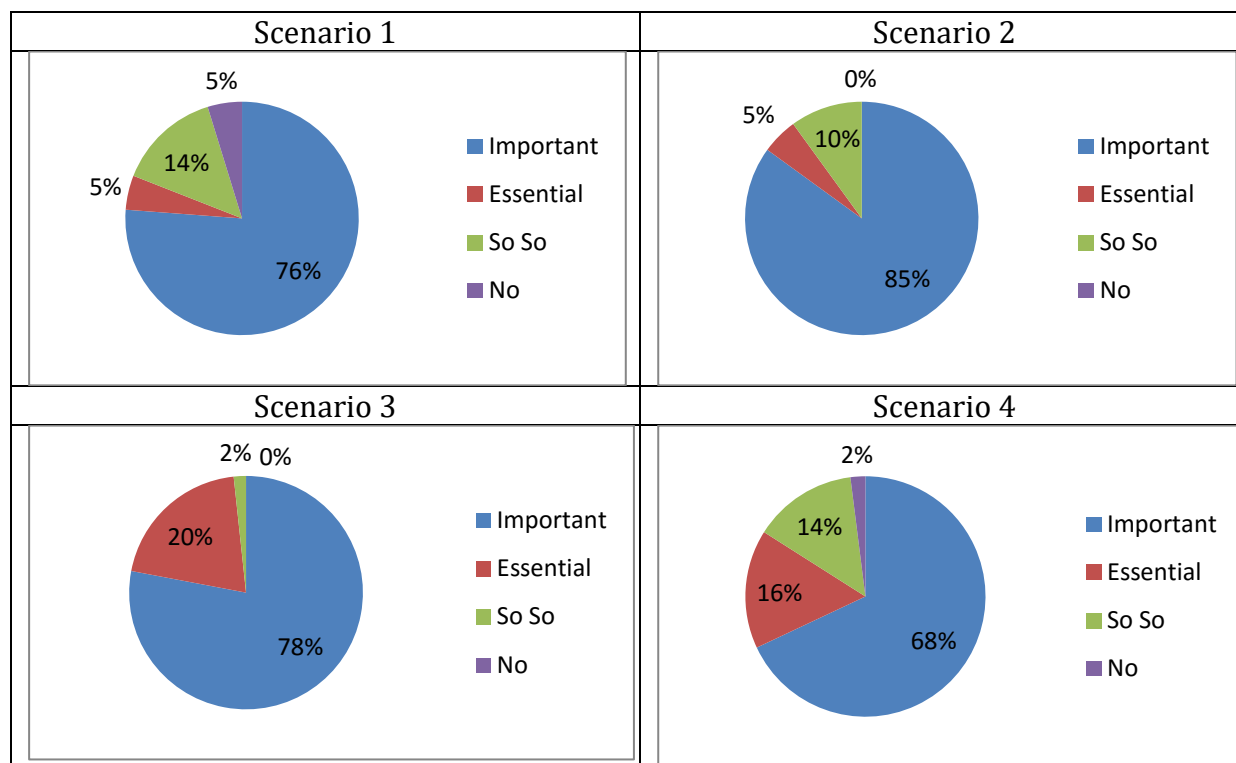
12.1.2 Do you consider important visualizing the furniture in the Augmented Reality Environment for your purchasing process?

The results for all the first 4 scenarios together shows that 90% of the polled thinks that the Augmented Reality Environment is *“Important”* or *“Essential”*, and only 1% of the testers said *“No”*.



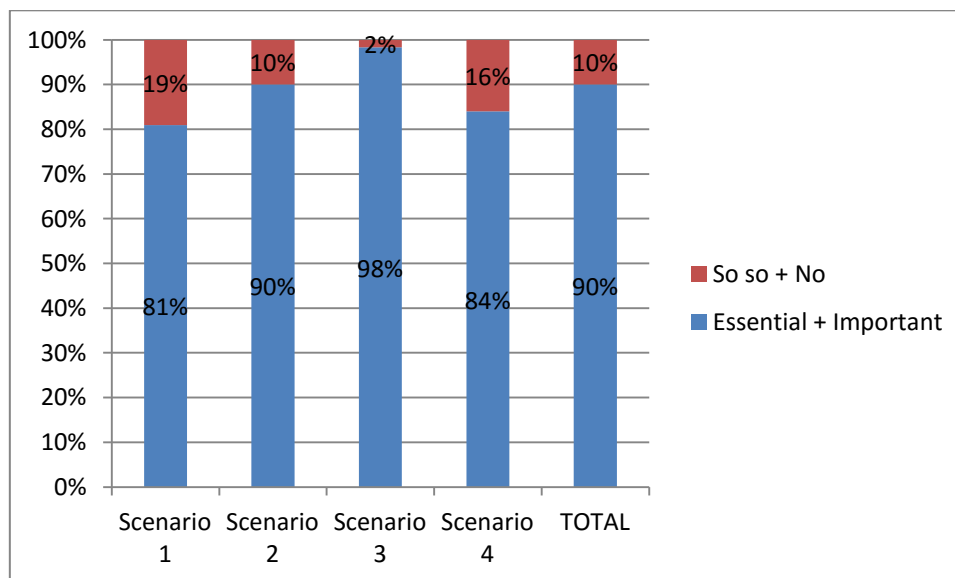
The following table shows the comparison between all the scenarios, and the total.





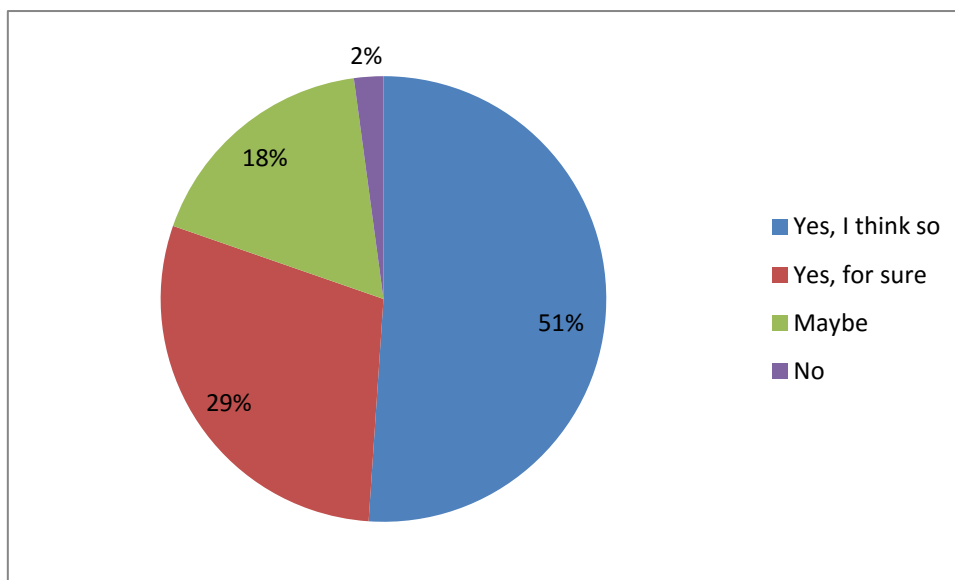
In the scenario 2 and 3 nobody choose “No” answer.

Grouping “Essential” + “Important” answers and “Soso” + “No”, the results in the following table show that in the worst case, the 81% of the polled choose “Essential” + “Important”.

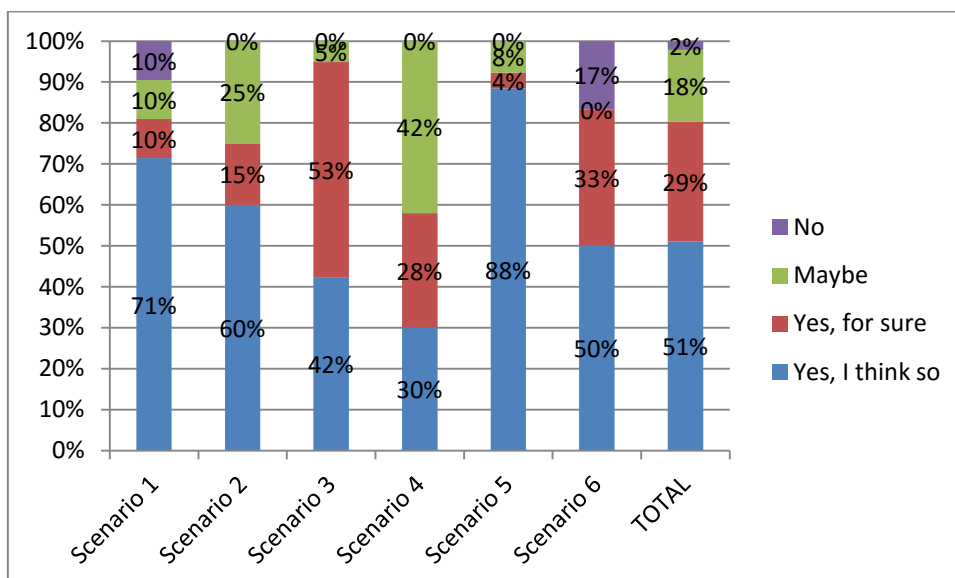


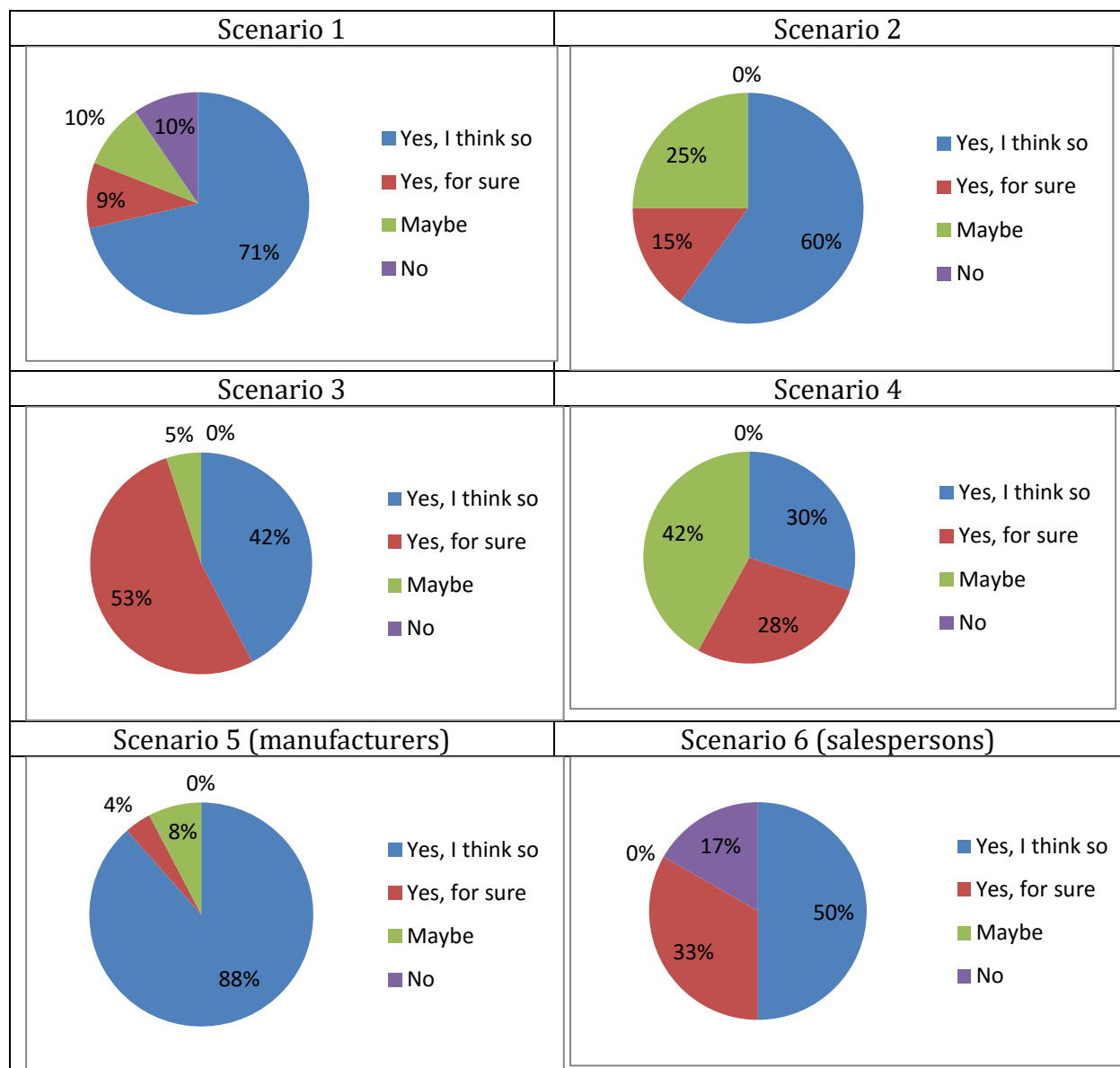
12.1.3 Would you use the FurnIT platform in the future?

The results for all the scenarios together (including the salespersons) show that 80% of the polled would use the platform in the future, and only 2% answer “no”.

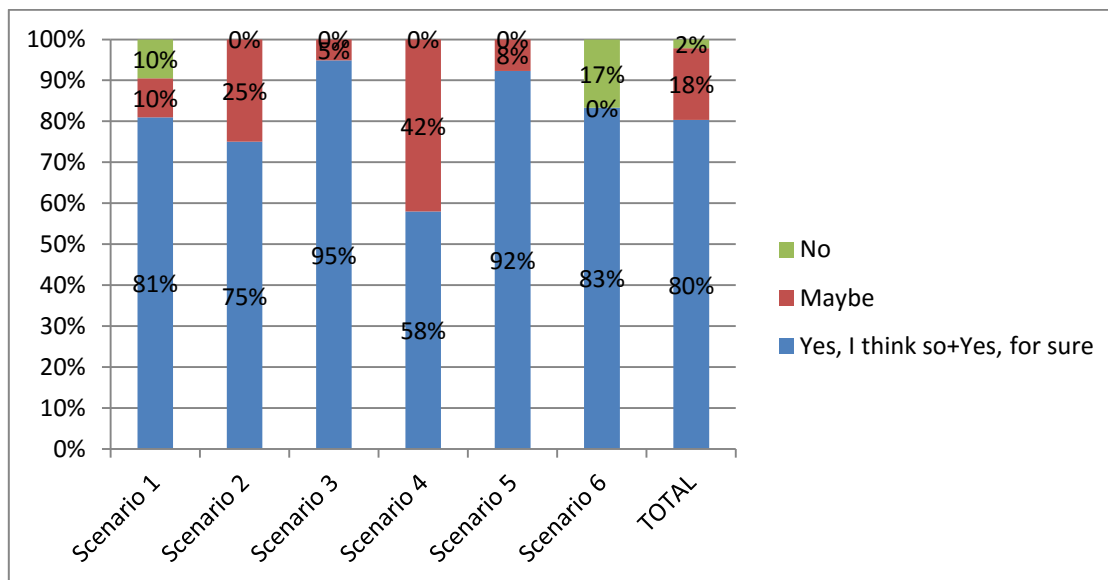


The following table shows the comparison between all the scenarios, and the total.



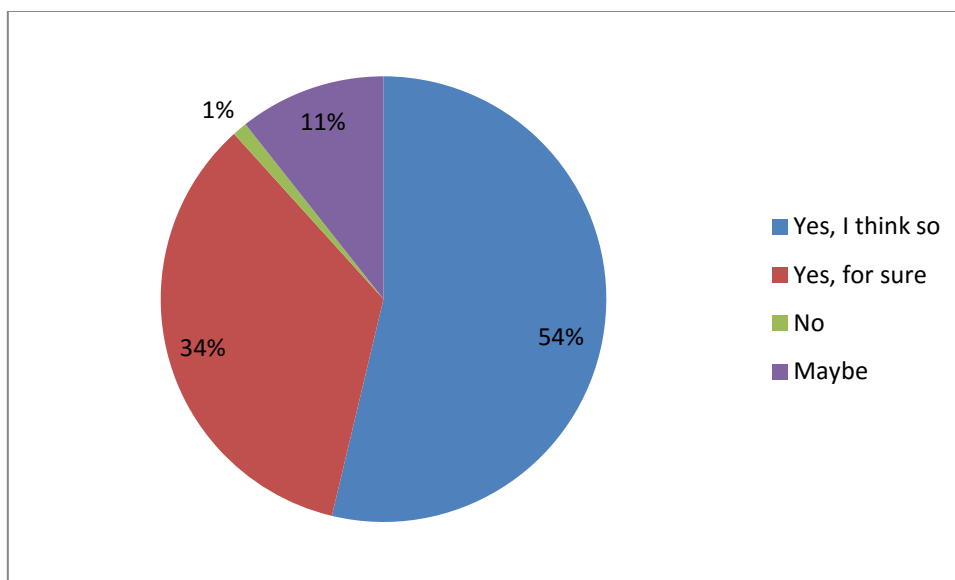


Grouping “Yes, I think so” and “Yes, for sure” answers, the results in the following table show that the worst case is 58% (scenario 4). The answer “No” has the value 17% (maximum) in the scenario 6 (salesperson).

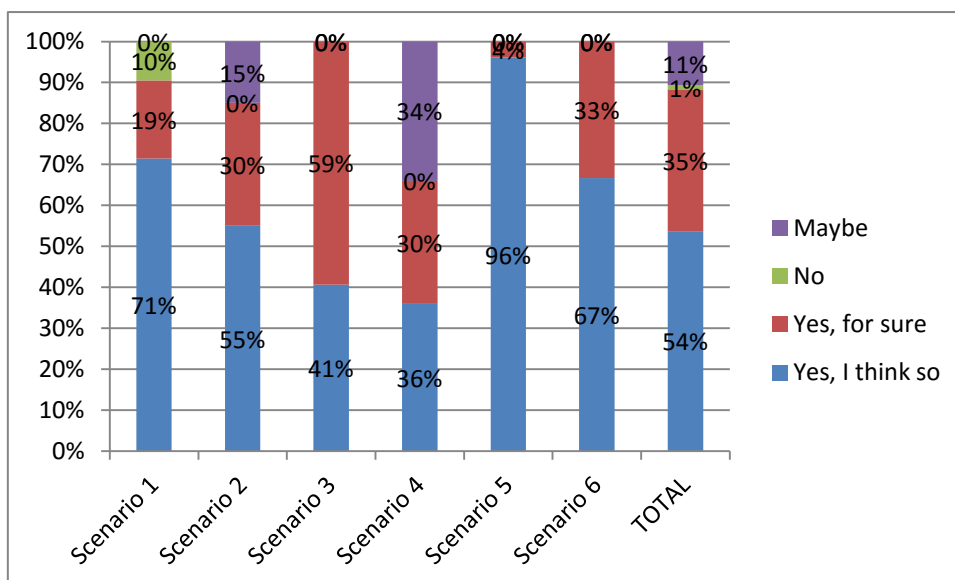


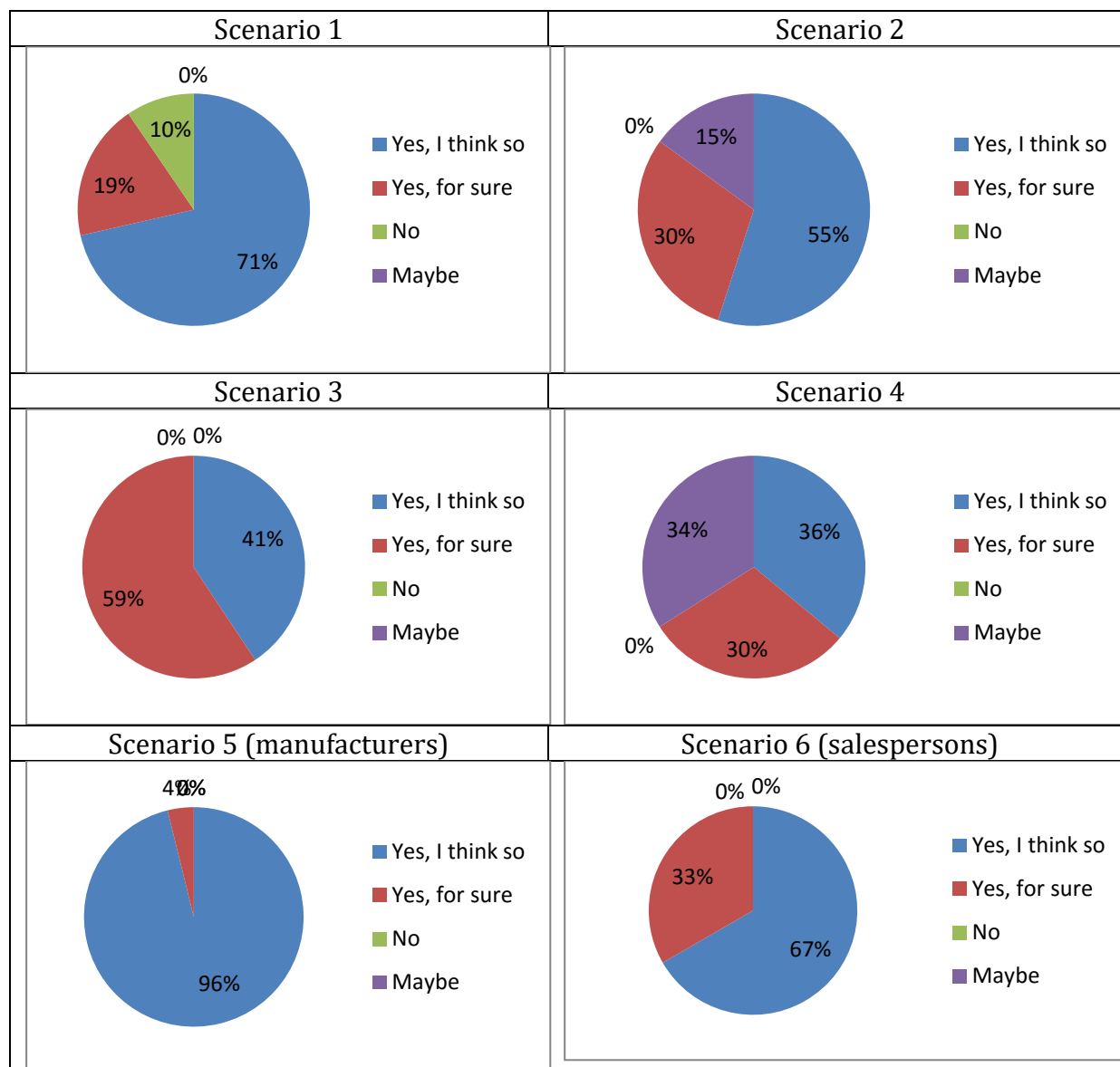
12.1.4 Would you recommend the FurnIT platform?

The results for all the scenarios together (including the salespersons) show that 88% of the polled would recommend the FurnIT-SAVER platform in the future, and only 1% answer "No".

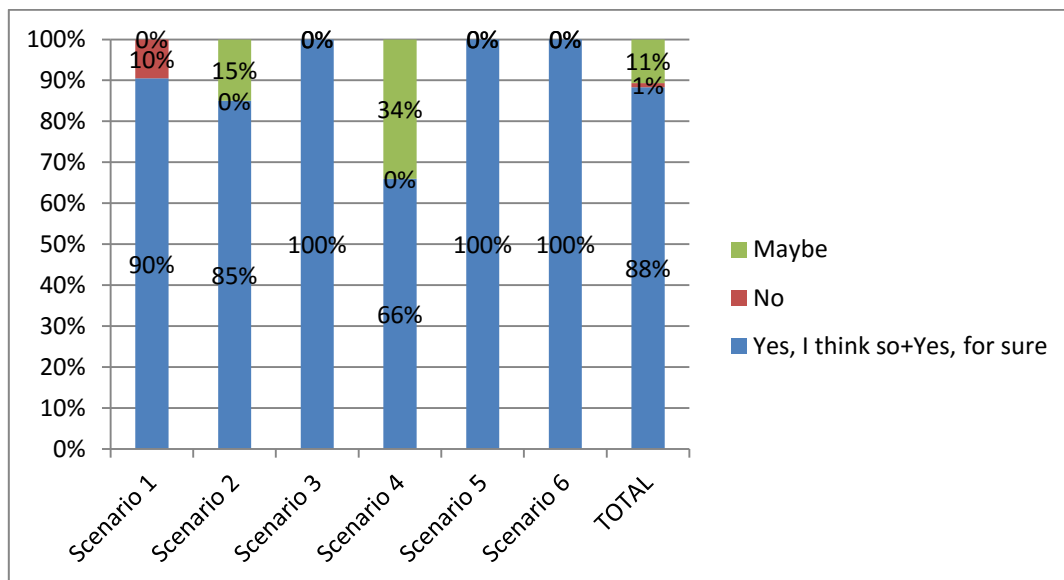


The following table shows the comparison between all the scenarios, and the total.



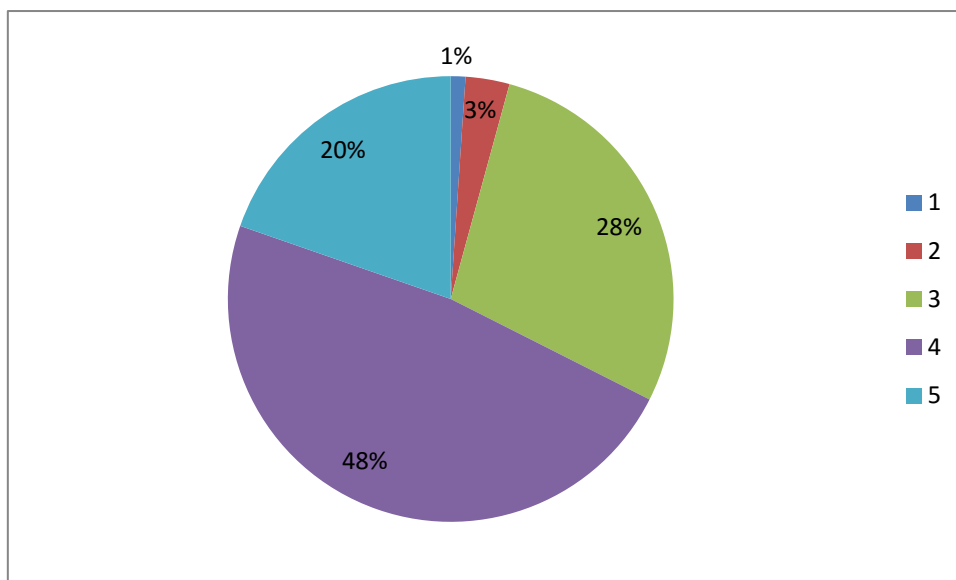


Grouping “Yes, I think so” and “Yes, for sure” answers, the results in the following table show that the worst case is 66% (scenario 4). In any case, “No” answer has value 10% (maximum) in the scenario 1.

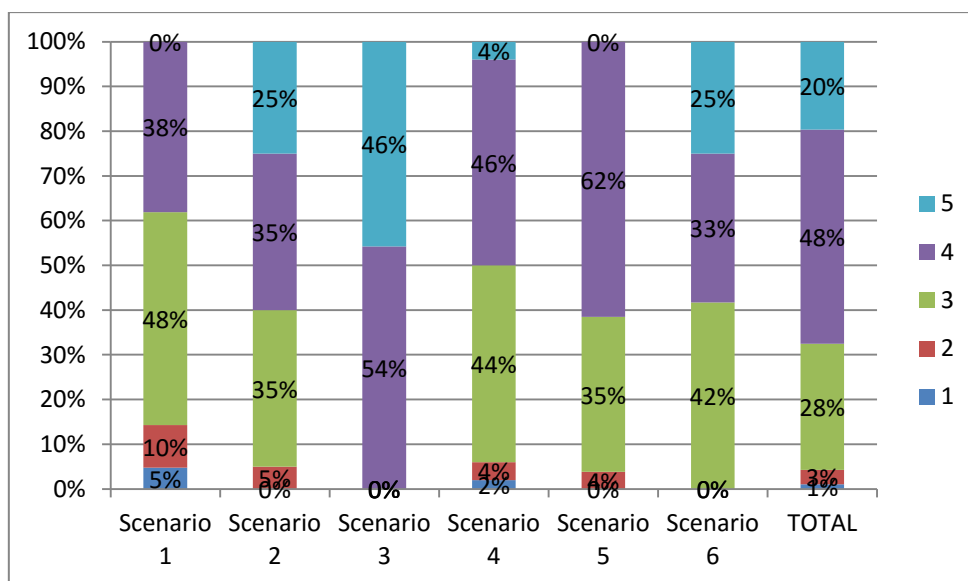


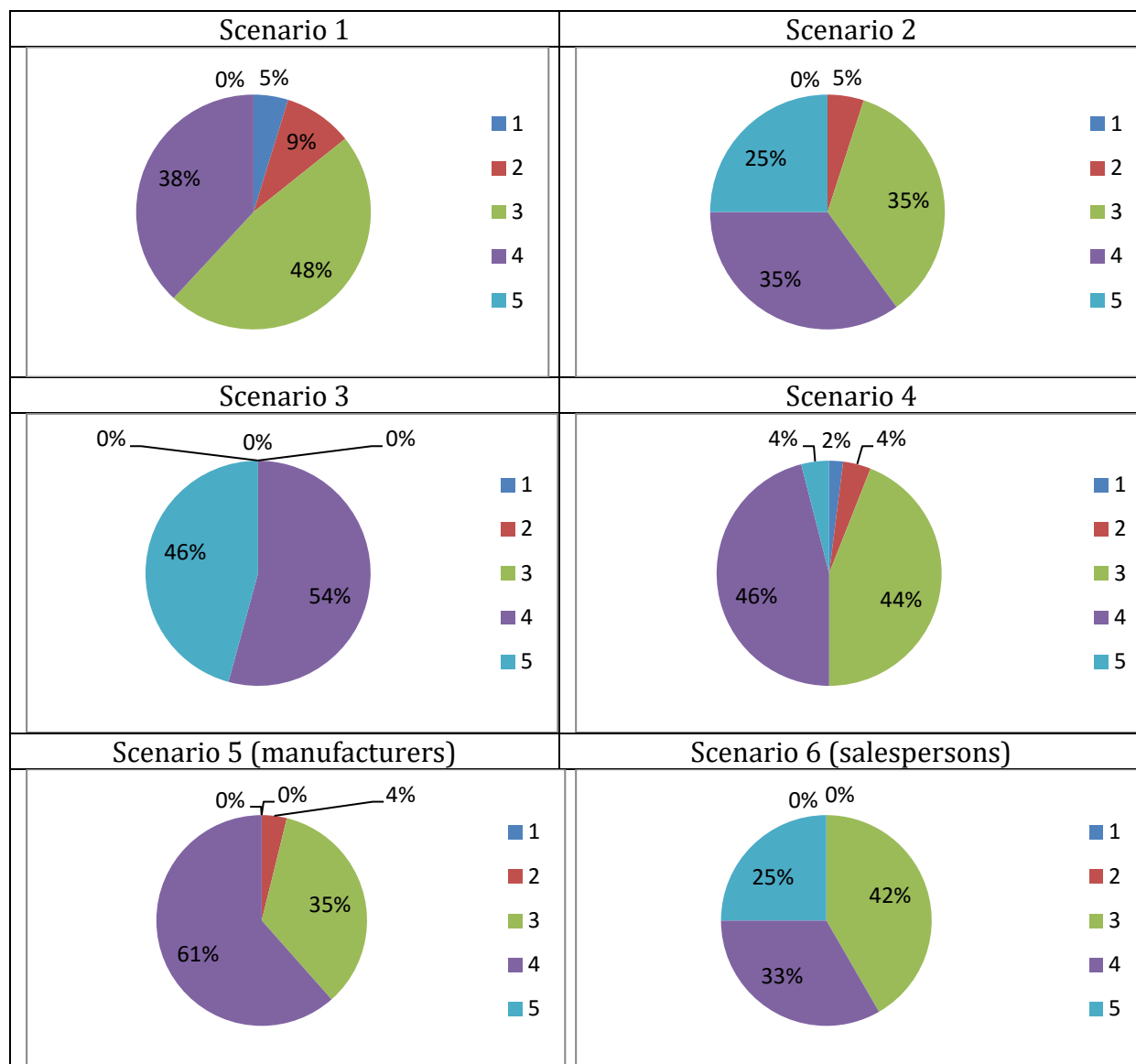
12.1.5 On a scale of 1-5, assess your user experience (1 - very bad, 5 - very good)

The results for all the scenarios together (including the salespersons) show that 68% of the polled has a user experience between '4' and '5', and only 4% is below neutral value ('3').

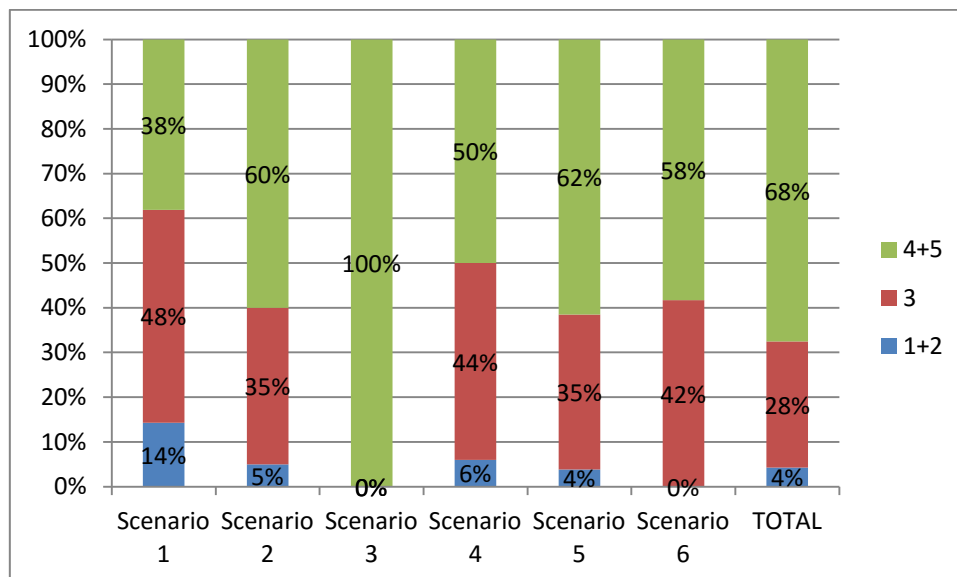


The following table shows the comparison between all the scenarios, and the total.



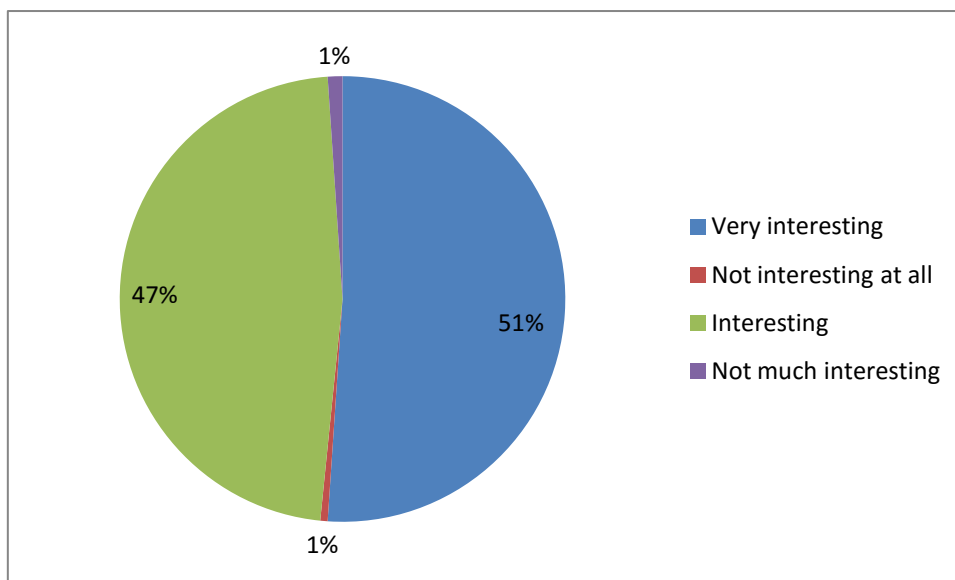


Grouping “4” and “5” answers, the results in the following table show that the worst case is 38% (scenario 1). In any case, “1+2” answer has 14% as the maximum value in scenario 1 as well.

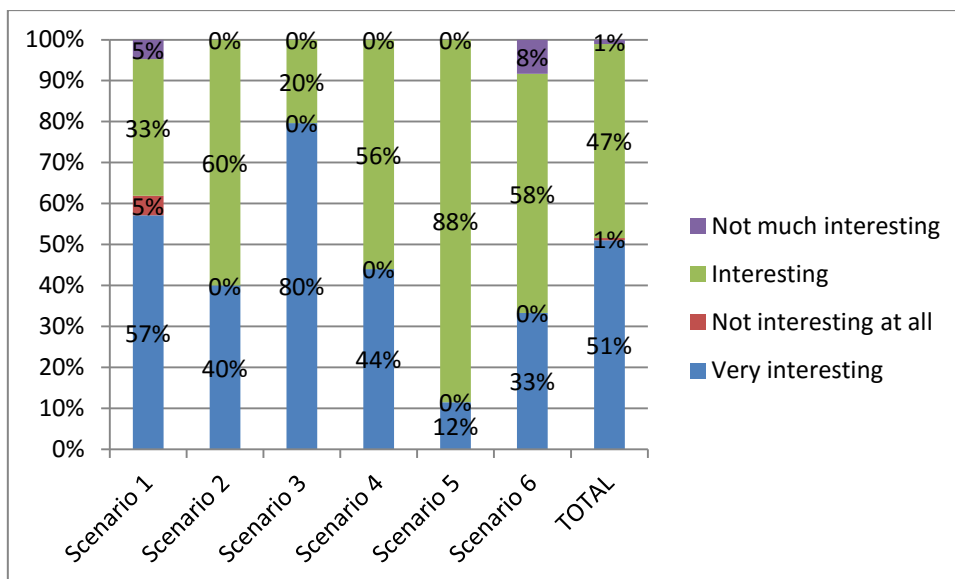


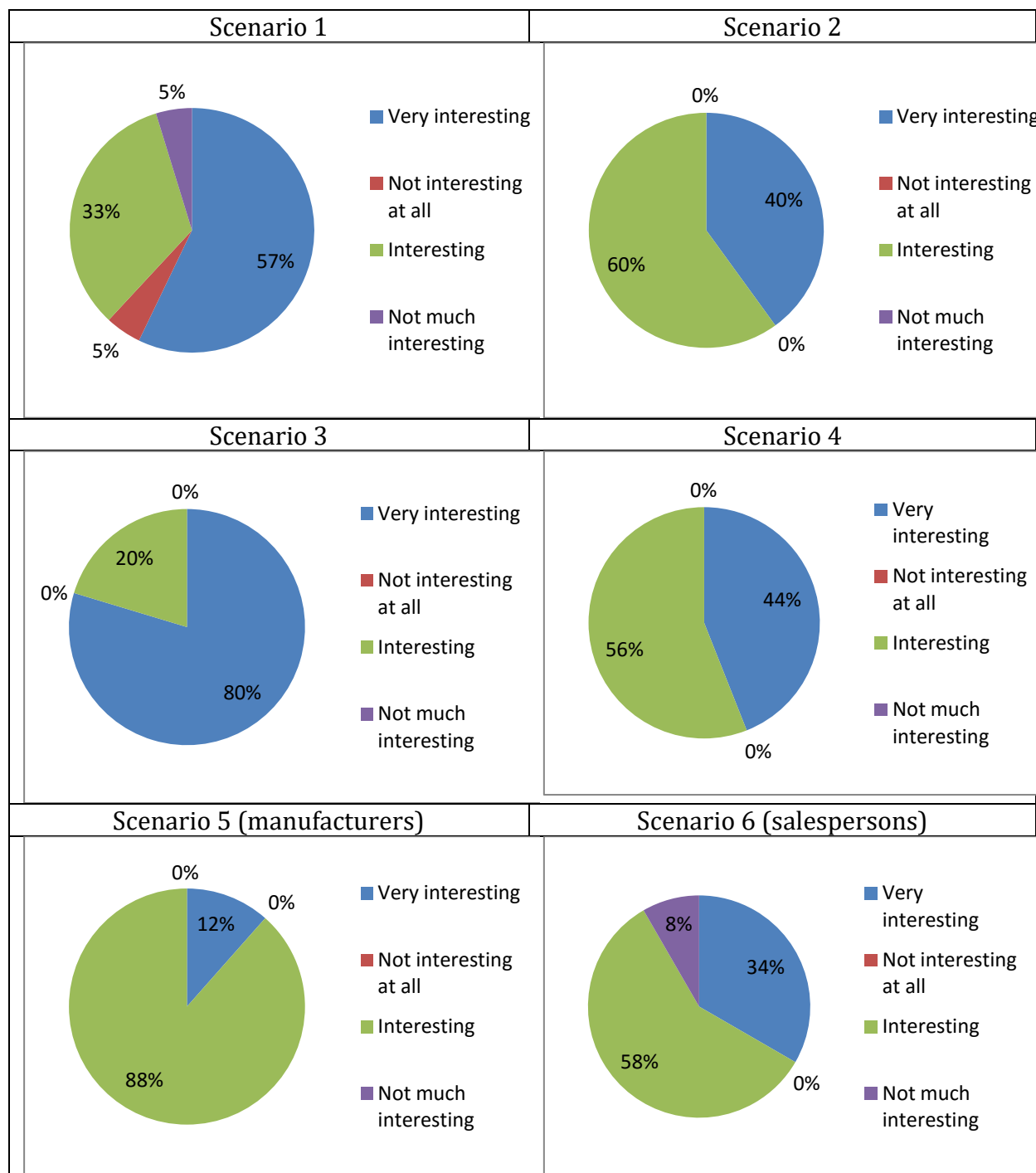
12.1.6 What is your general opinion of the FurnIT platform?

The results for all the scenarios together (including the salespersons) show that 98% of the polled think that the general opinion of the platform are “*Very interesting*” and “*Interesting*”

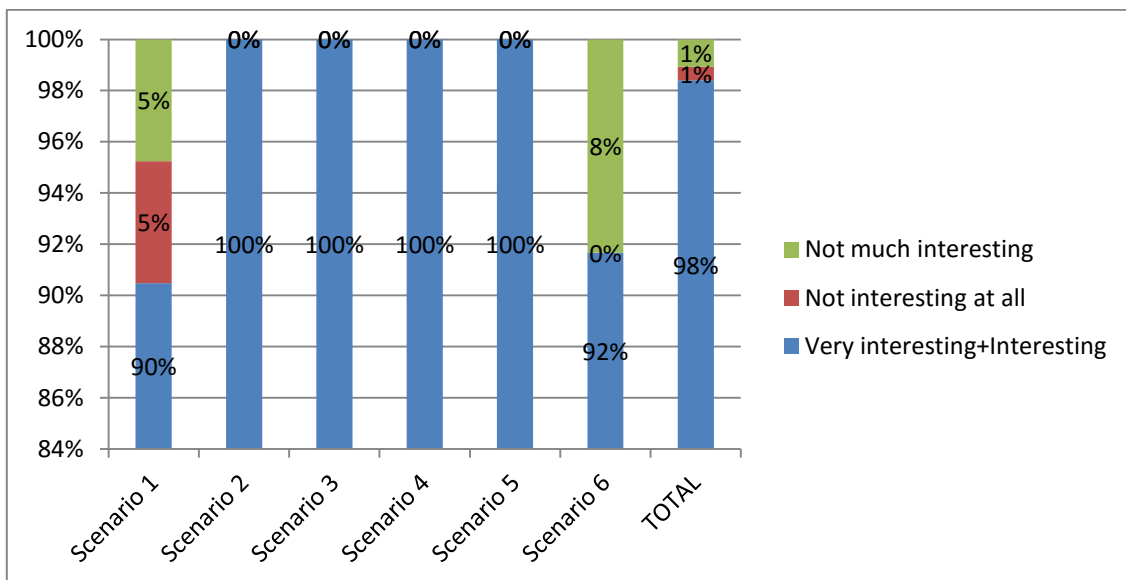


The following table shows the comparison between all the scenarios, and the total.





Grouping “*Very interesting*” and “*Interesting*” answers, the results in the following table show that the worst case is 90% (scenario 1). This group of answers is 100% for scenarios 2, 3, 4 and 5.



13 Future Recommendations

To highlight the importance of this recommendations it is worth to note the Furnit-Saver platform classification is TRL7 (that is: system prototype demonstration in operational environment). The identified comments are the right way to lead the system towards a TRL8/9 level, that means: a system complete and qualified or better, an actual system proven in operational environment (competitive manufacturing in the case of key enabling technologies; or in space).

Hereafter is an extract of main recommendations (others could be in the annexes), it is collected with aim to highlight main missing options/functionality to make the platform more attractive and useful for users

The future recommendations section is divided into several parts:

- The **defects detected** in the validation that could not be solved during the project
- The **recommendations** for complementary development and updates after the project ends

13.1 Recommendations

1. Uploading furniture: The furniture pieces are currently uploaded one by one into the platform. The possibility of upload a full catalogue or a set of pieces at once would be much preferred by the manufacturers.
2. 3D models upload too slow: After you insert all necessary data about uploaded 3D furniture and then press save button, the last saving procedure it to slow.
3. Furniture elevation – parameterization: Integrate option/command to »lift« items In VR. For example shelves on wall.

Implementation comments: Add a third degree of freedom in moving the furniture is a non-trivial technical improvement. A possible intermediate solution could be: to insert the elevation value (default is $z=0$, that is floor level) at the furniture uploading time.

4. Furniture dimensions – parameterization: The furniture manufacturers usually have “standard” different dimensions for the furniture pieces, meaning for example, that the same table model could be 80, 100 and 120 centimetres long. But from the FurnIT platform point of view, it is necessary to upload 3 different pieces with these 3 different dimensions. Another possibility is to use the comment box for every piece to include this 3 dimensions information.

Implementation comments: next version of the FurnIT platform will take into consideration the parameterizations of the furniture pieces, allowing uploading one

unique furniture piece with all the different measures instead of uploading one piece for each different measure.

5. Furniture colours: In the same way that with the dimensions, in case that the furniture manufacturer wants to offer the same table model (for example) with 3 different colours, it has to upload the same model 3 times, each time with the appropriate colour.
6. Furniture textures: in case that the furniture manufacturer wants to offer the same table model (for example) with 3 different textures, it has to upload the same model 3 times, each time with the appropriate texture.
7. Scaling: The changing of dimensions is not included at piece level as the model parameterization does not allow to properly scale it. For example, when a table is scaled, the legs are also scaled, but the correct option would be not change legs dimensions. On the other hand, at some length the table should include additional set of legs in the middle to make it stable at structural level.
Implementation comments: this can only be solved in the FurnIT platform by uploading a new/different table 3D model in the system.
8. eCommerce integration: The final prototype creates a purchase list instead of integrate any eCommerce or payment platform.
9. Share layouts between users: Share layouts and/or furniture combinations between users (specially professional users) is an interesting functionality to take into account in the future. This will be useful with users working remotely and/or sharing designs between different countries/locations.
10. Furniture model Format problem: Most of the furniture manufacturers use “production models” generated by AutoCAD, SolidWorks and/or any other application, focussed on CNC equipment. These models cannot be uploaded by the virtual reality platform which accepts .3ds or .dae file extensions, that can be defined as “visualisation models”.
11. Responsive Web site: better, more vivid and modern web site template in responsive web design! Responsive web design is needed also because now happen when PC/tablet have lower resolution, recommendatory and bottom menu reduces the main drawing space.
Implementation comments: the responsive feature for the web site is a useful aspect of the system to be evaluated taking into account the usability of the system because the menus have to be available for the room furnishing. About vividness or modernity of the website is a matter of personal/professional feeling and we did our best.
12. System User Manual/Tutorial: Short instructions (tutorial) to work with platform.

13. Search also by label/code: In case of huge database of uploaded models, search should offer more precise searching. Also models should appear in several rows not just in one. .
Implementation comments: the feature is already in; if the label/code information have been inserted for the furniture the “magnifying lens” feature allow the searching on them.
14. Basket option: Option to export final accommodation of selected items (Add to basket option?) separately to manufacturers (.json file + specification of selected furniture items) to use it in their standard selling process.
15. Not stable AR visualization: It is often happens that the visualized furniture in AR is blinking or not stable.

On the other hand, hereafter are the comments gathered during the interviews with domestic customers they have to be reviewed and carefully considered to extract the proper SW system requirements.

- It is not possible to resize the furniture using the Virtual Reality Environment – the idea of the user was to expand the current furniture model instead of selecting another model with different size and put it in the virtual reality environment, removing the old one.
- It is not possible to resize the furniture using the Augmented Reality Application – the idea of the user was to test in the real location with different sizes avoiding to go back to the Virtual Reality Environment, change the size..., and downloading the new combination with the new size in the AR, avoiding several steps
- It is not possible to change the color in the Virtual Reality Environment – the idea of the user was to have a contextual menu (or something else) to change some model attributes such as the color.
- It is not possible to change the color in the Augmented Reality Application – the idea of the user was to be able to change the color of the downloaded furniture without going back to the Virtual Reality Environment, select a new model with the desired color, insert it in the VR combination, remove the old one, and start again downloading the new combination in the AR – as you can see, the color issue (or attributes issue) it is quite similar to the resize issue.
- The users have the idea that when assigning a marker to one unique furniture piece in the VR they will see this unique furniture piece in the AR, instead of all the furniture combination.
- As a consequence of the previous statement, in case that the users want to see one unique furniture piece in the AR they have to save a combination in the VR environment with this unique furniture piece only. If they want to see several pieces

separately, they have to save several combinations of one unique piece in the VR to be downloaded in the AR App.

- But, on the other hand, some of the users think that using one unique marker is useful to see all the furniture combinations instead of using one marker per model - as you can see there are different opinions...
- Some users think about the possibility of reusing saved combinations in their personal area. For example, do few changes with one saved combination and save it with another name without losing the previous saved combination. This could be the case of saving the same combination with the furniture in different places, taking the advantage of the already designed combination. When loading the previous combination, doing some changes and saving the combination with a new name it seems that the old combination disappears from the personal area.

Implementation comments Saving an accommodation at each consolidated step allow the user to create a collection of possible room furnishing to be recalled in a future decoration work.

13.2 Defects

In this section are collected the defects detected in the validation that could not be solved during the project, more properly hereafter is a list of anomalies traced during the validation; a possible solution, comment and classification is traced for each of them.

During the validation, the following anomalies have been traced, they have been classified according to the following legenda.

code meaning

I improvement can be done

B bug to be solved,

N nothing to do)

If useful an additional comment by the developers.

D-1. We cannot change the chosen catalogue for the uploaded 3D models. At the moment the only possibility is to delete and upload again.

[Impl.Comment]

I - It is strictly linked to the designed Data model, it is possible to upload furniture models uniquely linking them to a catalogue. It seems logic to design the relation catalogue-to-furniture as a 1-to-n relation instead of an n-to-n one.

- D-2.** The VR platform not allowed to move 3D models vertically. For example we cannot lift the cabinet on wall. Only position on floor is possible.

[Impl.Comment]

I - Add a third degree of freedom in moving the furniture is a non-trivial technical improvement. A possible intermediate solution could be: to insert the elevation value (default is z=0, that is floor level) at the furniture uploading time.

- D-3.** When we use Internet Explorer for viewing the accommodations in VR on desktop PC, the VR is loading slowly, movement are not fluent.
When we use Chrome or Firefox VR working well.

[Impl.Comment]

B - It should be investigated the exact Explorer version used and to be used.

When we finishing with decorating the accommodation, no option exist for export a list of used 3D models with the prices and producers specificated.

[Impl.Comment]

B - The option have to be added soon.

- D-4.** On Manufacturer side we define at least two more options (Catalogue and Hardness / Finishing / Quality). On users view these options are not available. Include at least searching option "Catalogue" on VR platform.

[Impl.Comment]

I - The mentioned options are available to the user in a not direct way, because they are used by the recommender to suggest furniture list to him/her. The catalogue name could be added as searching parameter.

- D-5.** All products of all different colours are shown on same level, that is very confusing. Client should have possibility to choose product and then colour of this product.

[Impl.Comment]

N - The possibility to search for products on their color basis is already available. Selecting the color on the left side of the web-portal allows the user to navigate among all the products of the same "selected" color.

- D-6.** When we used AR app we noticed that all visualized furniture are not "laying" on floor but floating slightly above the floor. Also furniture pieces are not in the same level.

[Impl.Comment]

N - Before the release of the app, we have checked this situation, but this is an 'illusion' because no bottom reference is present in the 'virtual furniture' and also the lack of the shadows not help the situation.

The 'laying' effect is produced because the perspective visualization and the absence of floor reference produce this effect.

- D-7.** Missing the option to upload 3d models in batch.

[Impl.Comment]

I – First a careful analysis about the format of the data to be uploaded have to be done.

- D-8.** Missing option for searching by product code or name .

[Impl.Comment]

N – inserting in the search “magnifying lens” code or name of the furniture it works

- D-9.** Last step of uploading the 3ds model (last save option before upload is complete), take too long time.

[Impl.Comment]

N - It depends on the used system environment, in our testing sessions this problem hasn't been noticed.

- D-10.** Navigation between different entry form pages are accessible only by buttons prev or next. We recommend to implement option of navigation with slider or buttons for each entry form page. .

[Impl.Comment]

I – It is noted for the future recommendations.

- D-11.** When we work as a user with VR platform, the working space and menus not adjust when we use for example PC or tablet.

[Impl.Comment]

I – It is noted for the future recommendations.

- D-12.** Even I used FurnIT platform to accommodate layouts for several time, nothing really happen in recommender menu. Is working? .

[Impl.Comment]

B – It is noted for further investigation.

Annex A - Feedback answers from the validation phase

Scenario 1

	1	2	3	4	5	6	7
	Gender	Age	Occupation	City	Country	Which devices do you have	How many times do you connect to Internet?
1	Female	36	Manager	Barcelona	Barcelona	Smartphone, PC / Laptop	Several times a day
2	Female	31	Operations	Barcelona	Spain	Smartphone, PC / Laptop, Tablet	Several times a day
3	Female	25		Barcelona	Spain	Smartphone, PC / Laptop	Several times a day
4	Male	28	Ecommerce	Barcelona	Spain	Smartphone, PC / Laptop, Tablet	Several times a day
5	Female	23	Marketing	Barcelona	Spain	Smartphone, PC / Laptop, Tablet	Several times a day
6	Female	25	HR assistant	Barcelona	Spain	Smartphone, PC / Laptop, Tablet	Several times a day
7	Female	24	Finance	Barcelona	Spain	Smartphone, PC / Laptop, Tablet	Several times a day
8	Female	23	BI Analyst	Barcelona	Spain	Smartphone, PC / Laptop, Tablet	Several times a day
9	Female	34	HR Manager	barcelona	spain	Smartphone, PC / Laptop, Tablet	Several times a day
10	Female	23	customer service	Barcelona	Spain	Smartphone, PC / Laptop	Several times a day
11	Female	36	Finance Manager	Barcelona	Spain	Smartphone, PC / Laptop, Tablet	Several times a day
12	Female	40	Customer Service Manager	Barcelona	Spain	PC / Laptop	Several times a day
13	Female	28		Barcelona	España	Smartphone, PC / Laptop, Tablet	Several times a day
14	Male	26	Manager	Barcelona	España	Smartphone, PC / Laptop, Tablet	Once a day
15	Male	27		barcelona	barcelona	Smartphone, PC / Laptop	Several times a day
16	Female	30		barcelona	barcelona	Smartphone, PC / Laptop	Several times a day
17	Male	31	Ingeniero I+D	Barcelona	SPAIN	Smartphone, PC / Laptop, Tablet	Several times a day
18	Male	49	research and innovation	cerdanyola del vallès	Spain	Smartphone, PC / Laptop, Tablet	Several times a day
19	Female	43	Architect	Ljubljana	Slovenia	PC / Laptop, Tablet	Several times a day
20	Male	27	Assistant	Ljubljana	Slovenia	PC / Laptop	Several times a day
21	Male	30	Architect	Ljubljana	Slovenia	PC / Laptop	Several times a day
22	Female	45	/	Ljubljana	Slovenia	PC / Laptop	Several times a day
23	Male	25	Student	Ljubljana	Slovenia	PC / Laptop	Several times a day
24	Male	37	Graphic designer	Ljubljana	Slovenia	PC / Laptop	Several times a day
25	Female	20	Student	Ljubljana	Slovenia	Tablet	Several times a day
26	Female	20	Student	Ljubljana	Slovenia	Tablet	Several times a day
27	Male	20	student	Ljubljana	Slovenia	PC / Laptop	Several times a day
28	Male	37	engineer	Ljubljana	Slovenia	PC / Laptop	Several times a day
29	Female	25	/	Ljubljana	Slovenia	PC / Laptop	Once a day
30	Male	29	Research	Lleida	Spain	Smartphone, PC / Laptop	Several times a day
31	Male	31	Engineer	Lleida	Spain	Smartphone, PC / Laptop, Tablet	Several times a day
32	Male	27	Software developer	Lleida	Spain	Smartphone, PC / Laptop, Tablet	Several times a day
33	Female	28	graphic designer	Ljubljana	Slovenia	PC / Laptop	Several times a day
34	Female	40	Project manager	Postojna	Slovenia	Smartphone, PC / Laptop, Tablet	Several times a day
35	Male	25		barcelona	barcelona	Smartphone, PC / Laptop, Tablet	Several times a day
36	Male	36	Researcher	Lleida	Spain	Smartphone, PC / Laptop, Tablet	Several times a day
37	Male	50	Accountant	Barcelona	Spain	Smartphone, PC / Laptop, Tablet	Several times a day
38	Male	33		Barcelona	Spain	PC / Laptop	Several times a day
39	Female	33	Communication	Càlig	Spain	Smartphone, PC / Laptop	Several times a day
40	Female	36	Designer	Valencia	Spain	Smartphone, PC / Laptop, Tablet	Several times a day
41	Male	33		Lleida	Catalunya	Smartphone, PC / Laptop, Tablet	Several times a day
42	Female	36	Architect	Barcelona	Spain	Smartphone, PC / Laptop	Several times a day
43	Female	44	Researcher	Barcelona	Spain	Smartphone, PC / Laptop	Several times a day
44	Female	30		Barcelona	España	Smartphone, PC / Laptop, Tablet	Several times a day
45	Male	52	Innovation manager	Tarragona	Spain	Smartphone, PC / Laptop, Tablet	Several times a day
46	Female	40	Accounting	Altafulla	Spain	Smartphone, Tablet	Several times a day
47	Male	76	Retired	Barcelona	Spain	Smartphone, PC / Laptop	Once a day
48	Male	50	Profesional	Barcelona	spain	Smartphone, PC / Laptop, Tablet	Several times a day
49	Female	36		barcelona	España	Smartphone, PC / Laptop, Tablet	Several times a day
50	Male	24		Barcelona	España	Smartphone, PC / Laptop	Several times a day

	8	9	10	11	12	13
	When was the last time that you bought products and/or services using Internet?	How often do you buy furniture or decoration accessories?	Concerning your furniture or decoration accessories purchases, which percentage of	Last time you bought furniture, did you use the Internet to look for furniture?	Last time you bought furniture, where was it?	How do you prefer buying furniture?
1	One month ago or less	Once per season	51% to 75%	Yes	Online	See the product in store and then buy it online
2	One month ago or less	Once per season	26% to 50%	Yes	Online	See the product in store and then buy it online
3	One month ago or less	Rarely, when I need it	0% to 25%	Yes	Shop	See the product in store and then buy it online
4	One month ago or less	Rarely, when I need it	26% to 50%	Yes	Online	See the product online and then buy in store
5	One month ago or less	Once a month	26% to 50%	Yes	Shop	See the product online and then buy in store
6	One month ago or less	Once a month	51% to 75%	Yes	Online	See the product online and then buy in store
7	Between 6 and 1 month ago	Rarely, when I need it	26% to 50%	Yes	Shop	See the product online and then buy in store
8	One month ago or less	Rarely, when I need it	0% to 25%	No	Shop	See and buy the product in store
9	One month ago or less	Once per season	0% to 25%	Yes	Shop	See the product online and then buy in store
10	One month ago or less	Once a year	26% to 50%	Yes	Shop	See the product online and then buy in store
11	One month ago or less	Rarely, when I need it	0% to 25%	No	Shop	See and buy the product in store
12	One month ago or less	Once per season	26% to 50%	Yes	Shop	See the product in store and then buy it online
13	Between 6 and 1 month ago	Once a month	0% to 25%	Yes	Online	See and buy the product in store
14	Between 6 and 1 month ago	Rarely, when I need it	26% to 50%	Yes	Shop	See the product online and then buy in store
15	One month ago or less	Rarely, when I need it	51% to 75%	Yes	Online	See and buy the product online
16	Between 6 and 1 month ago	Once a year	51% to 75%	Yes	Shop	See the product online and then buy in store
17	One month ago or less	Once a month	0% to 25%	Yes	Shop	See and buy the product in store
18	One month ago or less	Once a year	26% to 50%	Yes	Shop	See the product online and then buy in store
19	One month ago or less	Rarely, when I need it	0% to 25%	No	Shop	See the product online and then buy in store
20	One month ago or less	Once a year	0% to 25%	Yes	Shop	See and buy the product in store
21	Between 6 and 1 month ago	Once a year	0% to 25%	No	Shop	See the product online and then buy in store
22	More than one year ago	Rarely, when I need it	0% to 25%	No	Shop	See and buy the product in store
23	More than one year ago	Once a year	0% to 25%	No	Shop	See the product online and then buy in store
24	More than one year ago	Rarely, when I need it	0% to 25%	Yes	Shop	See the product online and then buy in store
25	Between 6 and 1 month ago	Rarely, when I need it	0% to 25%	Yes	Shop	See the product online and then buy in store
26	Between 6 and 1 month ago	Rarely, when I need it	0% to 25%	Yes	Shop	See the product online and then buy in store
27	More than one year ago	Rarely, when I need it	0% to 25%	No	Shop	See the product online and then buy in store
28	More than one year ago	Once per season	0% to 25%	Yes	Shop	See the product online and then buy in store
29	More than one year ago	Once a month	0% to 25%	No	Shop	See the product online and then buy in store
30	One month ago or less	Rarely, when I need it	0% to 25%	Yes	Shop	See the product online and then buy in store
31	One month ago or less	Rarely, when I need it	26% to 50%	Yes	Shop	See the product in store and then buy it online
32	One month ago or less	Once per season	0% to 25%	Yes	Shop	See and buy the product in store
33	One month ago or less	Rarely, when I need it	0% to 25%	Yes	Shop	See the product online and then buy in store
34	One month ago or less	Rarely, when I need it	0% to 25%	Yes	Shop	See and buy the product in store
35	One month ago or less	Rarely, when I need it	0% to 25%	Yes	Shop	See the product online and then buy in store
36	One month ago or less	Once a year	0% to 25%	Yes	Shop	See and buy the product in store
37	One month ago or less	Rarely, when I need it	0% to 25%	No	Shop	See the product online and then buy in store
38	One month ago or less	Rarely, when I need it	0% to 25%	Yes	Shop	See the product in store and then buy it online
39	Between 6 and 1 month ago	Once a year	26% to 50%	Yes	Shop	See the product online and then buy in store
40	One month ago or less	Once a year	26% to 50%	Yes	Shop	See the product in store and then buy it online
41	One month ago or less	Rarely, when I need it	0% to 25%	Yes	Shop	See and buy the product in store
42	One month ago or less	Once a month	76% to 100%	Yes	Shop	See the product online and then buy in store
43	Between 6 and 1 month ago	Rarely, when I need it	0% to 25%	Yes	Shop	See and buy the product in store
44	Between 6 and 1 month ago	Once a year	51% to 75%	Yes	Online	See and buy the product online
45	One month ago or less	Rarely, when I need it	0% to 25%	Yes	Shop	See the product online and then buy in store
46	One month ago or less	Once per season	26% to 50%	Yes	Shop	See the product online and then buy in store
47	Between 6 and 1 month ago	Rarely, when I need it	0% to 25%	No	Shop	See and buy the product in store
48	One month ago or less	Once a year	0% to 25%	Yes	Shop	See the product online and then buy in store
49	Between 6 and 1 month ago	Once per season	51% to 75%	Yes	Online	See and buy the product online
50	One month ago or less	Rarely, when I need it	26% to 50%	Yes	Online	See the product online and then buy in store

Page 137 of 170

	16	17	18	19
	Do you consider important visualizing the furniture in the Virtual Reality Environment for your purchasing process?	Do you consider important visualizing the furniture in the Augmented Reality Environment for your purchasing process?	What is the best of the FurnIT?	What is the worst of the FurnIT?
1	Important	Important	Seeing the furniture how it fits in your own room	Not many products available
2	Important	Important	Seeing the combination of elements	Not possible to measure the type of light in the room
3	Important	Important	You can see the furniture in a place	You can't see your home
4	Important	So So	See how the furniture look on a room	It's not user friendly
5	So so	Important	That it provides a unique and innovative experience	The amount of time that needs to be invested on it
6	Essential	Essential	Very helpful to buy products online, specially the most expensive ones.	The time you need to create the layout
7	Important	Important	The possibility to see the furniture in a room	If you only want to buy only one decorative product, you have to waste more time just for one product
8	Essential	Essential	3D	The vision is like an eye in the sky, not how a human would see it
9	No	No	Good idea to imagine how the furniture match with your home	It's a good idea but very difficult to use (to do the layout), I can't try others tools. Poor furniture and doesn't seem real
10	So so	Important	See all the items in the Augmented Reality Environment	Learn to create the environment
11	Important	Important	reality	adaptability
12	So so	Important	Augmented Reality Environment	Nothing
13	Important	Important	the commodity	-
14	Important	Important	Easy to use	Slow
15	Essential	Essential	see the product in detail	few products
16	Important	Important	Ver el producto en la habitación	Difícil de utilizar
17	No	Important	The augmented reality	The short catalog
18	No	Important	look and feel	login delays
19	Important	Important	AR technology	/
20	Important	Important	Virtual view	/
21	Important	Important	Virtual view	/
22	Important	Important	/	/
23	Important	Important	Realistic 3D view	/
24	Important	Important	3d view in real living space	/
25	Important	Important	/	/
26	Important	Important	/	/
27	Important	Important	/	/
28	Important	Important	quick 3d equipping with furniture	/
29	Important	Important	/	/
30	Important	So So	You can see the furniture in your room before buying it. It helps to check the sizes and visualize how it's going to be decorated.	Nothing
31	Important	So So	The possibility to see how fits each furniture in the room	Some functional problems in the website
32	Essential	Essential	The possibility to see the furniture using augmented reality	Lack of furniture
33	Important	Important	quick adding furniture in space	/
34	Important	So So	To evaluate the appropriateness of the furniture in the chosen space	there are better solutions on the market - virtual walk through the furnished spaces, as you were there (more than 3D). opis: http://www.consumerreports.org/kitchen/virtual-reality-can-eliminate-remodeling-mistakes-before-they-happen/
35	Important	Important	Ver las dimensiones del mueble en la habitación propia	Lento y pocos muebles
36	Important	Important	The customization of your room	The user experience
37	Important	Important	The visualization of everything and the fast and easy to use it	Nothing
38	No	So So	the concept	the available furniture
39	Essential	Essential	flexibility	images
40	Important	Important	The possibility to see, more or less, how the furniture is going to fit in the real place through the augmented reality application	Not very realistic quality of the furniture to be visualized
41	Essential	Important	AR	It is somehow complex to define the rooms.
42	Important	Important	Have the possibility to visualize the furniture on the space.	To have to place the printed paper...
43	Important	So So	I don't know I haven't been able to connect	I don't know I haven't been able to connect
44	Essential	Essential	Ver el producto con sus dimensiones	Uso difícil
45	Important	So So	Virtual and augmented reality integration in the same sequence	Augmented reality not very realistic
46	Essential	Essential	Nice product visualization	-
47	So so	Important	Product visualization in place	Complexity
48	Important	Important	recommendations	.
49	Essential	Essential	Ver como queda el producto y en dimensiones	Variedad de productos escasa
50	Important	Important	Visualizar	Nada

	20	21	22	23	24	25
	How positive are these aspects of the FurnIT platform for you? [Visualizing lots of furniture combinations]	How positive are these aspects of the FurnIT platform for you? [Useful recommendator that helps to take decisions]	How positive are these aspects of the FurnIT platform for you? [Saving different furniture combinations in my personal area]	How negative are these aspects of the FurnIT platform for you? [Too Complex]	How negative are these aspects of the FurnIT platform for you? [Too many steps]	How negative are these aspects of the FurnIT platform for you? [Not much furniture pieces]
1	(++)	(+)	(++)	(--)	(--)	(--)
2	(++)	()	(++)	(-)	(-)	(-)
3	(++)	(++)	(+++)	(-)	(--)	(-)
4	(++)	(++)	(+)	(--)	(--)	(--)
5	(+++)	(++)	(+++)	(--)	(--)	(-)
6	(++)	()	(+)	()	(--)	(--)
7	(+++)	(++)	(+++)	(-)	()	(-)
8	(+++)	(++)	(++)	(-)	(--)	(--)
9	(++)	(++)	(++)	(--)	(--)	(--)
10	(+++)	(+++)	(+++)	()	(--)	(--)
11	(+)	(++)	(+++)	(--)	(--)	(--)
12	(++)	(+++)	(+)	(-)	(--)	(-)
13	(+++)	(+)	(++)	(--)	(--)	(-)
14	(++)	(++)	(++)	(--)	(--)	(--)
15	(+++)	()	(+)	(-)	(--)	(-)
16	(++)	()	(++)	(--)	(--)	(--)
17	(+)	(++)	(+++)	(-)	(-)	(--)
18	(++)	(+)	(+++)	()	(-)	(--)
19	(+)	(+)	(++)	(-)	(-)	(-)
20	(++)	(+)	(+)	(-)	(-)	(-)
21	(++)	(++)	(++)	(-)	(-)	(-)
22	(+)	(+)	(+)	(-)	(-)	(-)
23	()	(+)	()	()	(-)	(-)
24	(+)	(+)	(+)	(-)	(-)	(-)
25	(++)	(++)	(++)	(--)	(-)	(--)
26	(++)	(++)	(++)	(--)	(-)	(--)
27	(++)	(++)	(++)	(-)	(-)	(-)
28	(+)	(+)	(+)	(-)	(-)	(-)
29	()	()	()	()	()	()
30	(+++)	(++)	(++)	(-)	(-)	(--)
31	(+++)	(+++)	(+)	(-)	(-)	(--)
32	(++)	(+)	(+++)	(--)	(-)	(--)
33	(+)	(+)	(+)	(-)	(-)	(-)
34	(++)	(++)	(++)	()	()	()
35	(++)	(++)	(+)	(--)	(--)	(--)
36	(+)	(++)	(+++)	(--)	(-)	(--)
37	(+++)	(++)	(+++)	()	()	(-)
38	(++)	(+)	(+)	(--)	(--)	(--)
39	(+++)	(++)	(++)	(--)	(--)	(--)
40	(+++)	(+)	(++)	(-)	()	(--)
41	(+++)	(+++)	(+++)	(-)	(-)	(-)
42	(+++)	(++)	(+++)	(-)	(-)	(-)
43	(+++)	(+)	(++)	()	(-)	(--)
44	(+++)	(+++)	(+++)	(--)	(--)	(--)
45	(+++)	(++)	(++)	(-)	(--)	(--)
46	(+++)	(++)	(+++)	(--)	(-)	(--)
47	(++)	(+)	(+)	(--)	(--)	(-)
48	(+++)	(+++)	(+++)	(-)	()	(--)
49	(++)	(+)	(++)	(-)	(--)	(-)
50	(++)	(++)	(++)	(-)	()	(-)

	26	27	28	29	30	31	32
	Would you use the FurnIT platform in the future?	Would you recommend the FurnIT platform?	On a scale of 1-5, how satisfied are you with the platform content organisation? (1- not satisfied, 5 - very satisfied)	On a scale of 1-5, how intuitive is the FurnIT platform content organisation? (1- not intuitive, 5- very intuitive)	On a scale of 1-5, assess your user experience (1 - very bad, 5 - very good)	On a scale of 1-10, how satisfied are you with the service given to you at the shop? (1- not satisfied, 10 - very satisfied)	How likely is it that your satisfaction will improve thanks to using FurnIT?
1	Yes, I think so	Yes, I think so	3	4	3	8	Somewhat likely
2	Yes, I think so	Yes, I think so	4	4	4	7	Somewhat likely
3	Yes, for sure	Yes, I think so	4	5	4	9	Somewhat likely
4	Maybe	Maybe	2	2	2	6	Somewhat likely
5	Yes, for sure	Yes, for sure	5	4	5	10	Very likely
6	Yes, I think so	Yes, for sure	3	3	4	7	Somewhat likely
7	Yes, for sure	Yes, for sure	4	4	4	9	Very likely
8	Yes, for sure	Yes, for sure	4	4	4	7	Very likely
9	Maybe	Maybe	2	3	4	5	Neutral
10	Yes, I think so	Yes, I think so	4	3	5	7	Somewhat likely
11	Maybe	Maybe	3	3	3	6	Somewhat likely
12	Yes, for sure	Yes, for sure	4	3	4	6	Neutral
13	Maybe	Maybe	3	3	3	4	Neutral
14	Yes, I think so	Yes, for sure	3	3	4	7	Neutral
15	Yes, for sure	Yes, for sure	4	3	4	8	Somewhat likely
16	Yes, I think so	Yes, I think so	3	4	4	8	Somewhat likely
17	Maybe	Maybe	4	4	3	7	Very likely
18	Yes, for sure	Maybe	3	5	4	6	Very likely
19	Yes, I think so	Yes, I think so	3	3	3	7	Somewhat likely
20	Maybe	Yes, I think so	4	4	3	6	Somewhat likely
21	Maybe	Maybe	3	3	3	5	Somewhat likely
22	Maybe	Maybe	3	3	3	6	Somewhat likely
23	Maybe	Maybe	3	3	3	6	Somewhat likely
24	Maybe	Maybe	3	4	3	7	Neutral
25	Maybe	Maybe	4	3	3	8	Neutral
26	Maybe	Maybe	4	3	3	8	Neutral
27	Yes, I think so	Yes, I think so	3	4	3	5	Neutral
28	Maybe	Yes, I think so	3	3	3	7	Somewhat likely
29	Maybe	Yes, I think so	4	4	3	7	Neutral
30	Yes, for sure	Yes, I think so	4	4	3	8	Very likely
31	Yes, I think so	Yes, I think so	4	3	3	7	Very likely
32	Maybe	Maybe	3	3	4	5	Very likely
33	Yes, I think so	Yes, I think so	3	4	3	8	Somewhat likely
34	Maybe	Maybe	2	3	3	6	Neutral
35	Yes, for sure	Yes, for sure	4	4	3	6	Very likely
36	Yes, I think so	Maybe	4	2	2	6	Somewhat likely
37	Yes, for sure	Yes, for sure	4	4	4	6	Somewhat likely
38	Maybe	Maybe	3	3	3	5	Neutral
39	Yes, I think so	Yes, I think so	4	4	4	7	Somewhat likely
40	Yes, I think so	Yes, for sure	3	3	4	7	Somewhat likely
41	Maybe	Yes, I think so	5	4	4	7	Very likely
42	Yes, I think so	Yes, for sure	4	5	4	8	Very likely
43	Maybe	Yes, I think so	1	1	1	5	Neutral
44	Yes, for sure	Yes, for sure	5	5	4	7	Very likely
45	Maybe	Yes, I think so	4	3	4	6	Somewhat likely
46	Yes, for sure	Yes, for sure	4	5	4	7	Very likely
47	Maybe	Maybe	3	2	3	8	Somewhat likely
48	Yes, I think so	Yes, I think so	4	3	4	4	Somewhat likely
49	Yes, for sure	Yes, for sure	4	3	4	7	Very likely
50	Yes, for sure	Yes, for sure	3	3	4	7	Very likely

	33	34	35	36	37	38
	Please estimate on a scale of 1-10, how satisfied you would be with the service given to you at the shop once FurnIT is used? (1- not satisfied, 10 - very satisfied)	Please estimate on a scale of 1-10, how likely are you in the present to shop again at this store? (1- highly unlikely, 10- very likely)	How likely is it that this number improves using FurnIT in the store?	Please estimate on a scale of 1-10, how likely are you to shop here again once FurnIT is used regularly in the store? (1- highly unlikely, 10 - very likely)	Have you recently returned any furniture items you've purchased? (for example, in cases the product did not match your expectations or was delivered damaged).	"Using FurnIT I will be more confident when buying a furniture and less likely to return it." To which degree do you agree or disagree with this statement?
1	8	7	Somewhat likely	9	Yes, I have	Agree
2	7	7	Somewhat likely	8	Yes, I have	Agree
3	8	7	Somewhat likely	7	I haven't bought any furniture recently	Neutral
4	6	6	Somewhat unlikely	6	Yes, I have	Neutral
5	10	10	Very likely	10	I haven't bought any furniture recently	Disagree
6	8	6	Somewhat likely	8	No, I haven't	Strongly agree
7	10	9	Very likely	9	No, I haven't	Agree
8	6	7	Neutral	7	Yes, I have	Agree
9	7	6	Somewhat likely	7	Yes, I have	Agree
10	6	8	Somewhat likely	6	Yes, I have	Strongly agree
11	6	6	Neutral	6	I haven't bought any furniture recently	Neutral
12	6	7	Somewhat likely	6	No, I haven't	Neutral
13	4	4	Neutral	3	I haven't bought any furniture recently	Neutral
14	6	7	Neutral	6	Yes, I have	Agree
15	8	8	Somewhat likely	8	No, I haven't	Agree
16	8	9	Very likely	10	Yes, I have	Agree
17	9	8	Somewhat likely	8	Yes, I have	Disagree
18	8	7	Somewhat likely	9	No, I haven't	Neutral
19	8	7	Somewhat likely	8	No, I haven't	Neutral
20	7	6	Somewhat likely	7	I haven't bought any furniture recently	Disagree
21	6	5	Neutral	6	I prefer not to answer.	Neutral
22	7	6	Somewhat likely	7	No, I haven't	Neutral
23	7	6	Somewhat likely	7	No, I haven't	Neutral
24	8	7	Neutral	8	I haven't bought any furniture recently	Neutral
25	9	8	Neutral	9	No, I haven't	Neutral
26	9	8	Neutral	9	No, I haven't	Neutral
27	7	5	Neutral	7	No, I haven't	Neutral
28	8	7	Neutral	8	I haven't bought any furniture recently	Neutral
29	8	7	Neutral	8	No, I haven't	Neutral
30	9	8	Very likely	8	I haven't bought any furniture recently	Strongly disagree
31	9	9	Somewhat likely	8	I haven't bought any furniture recently	Strongly agree
32	8	7	Very likely	8	No, I haven't	Strongly agree
33	9	7	Somewhat likely	9	No, I haven't	Neutral
34	5	4	Neutral	5	No, I haven't	Neutral
35	8	8	Very likely	10	I haven't bought any furniture recently	Neutral
36	6	6	Somewhat likely	7	No, I haven't	Agree
37	8	6	Somewhat likely	8	I haven't bought any furniture recently	Agree
38	5	3	Neutral	3	I haven't bought any furniture recently	Agree
39	6	7	Somewhat likely	7	No, I haven't	Agree
40	9	7	Somewhat likely	8	No, I haven't	Neutral
41	9	8	Very likely	9	No, I haven't	Strongly agree
42	8	9	Very likely	10	No, I haven't	Neutral
43	5	5	Neutral	5	No, I haven't	Agree
44	10	8	Very likely	10	Yes, I have	Strongly agree
45	8	7	Somewhat likely	8	I haven't bought any furniture recently	Agree
46	9	7	Very likely	9	Yes, I have	Agree
47	8	8	Somewhat likely	8	No, I haven't	Agree
48	7	7	Somewhat likely	8	No, I haven't	Neutral
49	9	7	Very likely	9	Yes, I have	Strongly agree
50	10	7	Very likely	10	I haven't bought any furniture recently	Agree

	39	40	41	42
	How many items do you normally purchase when shopping here? - please consider furniture and design accessories (such as decoration items, textiles, etc).	How likely is it that using FurnIT you would purchase more items? - for example, try to imagine how likely you are to purchase not only a sofa, but also cushions that match	What is your general opinion of the FurnIT platform?	Add any comment and/or suggestion if you have it, please...
1	1 item	Neutral	Interesting	
2	2-3 items	Somewhat likely	Very interesting	
3	1 item	Neutral	Interesting	
4	1 item	Somewhat likely	Interesting	
5	2-3 items	Very likely	Very interesting	It would be interesting to involve social media buttons to share the experience
6	1 item	Somewhat unlikely	Very interesting	
7	1 item	Somewhat likely	Very interesting	
8	1 item	Neutral	Very interesting	
9	None	Somewhat likely	Interesting	
10	1 item	Somewhat likely	Interesting	
11	2-3 items	Neutral	Interesting	
12	2-3 items	Neutral	Interesting	
13	None	Neutral	Interesting	
14	2-3 items	Somewhat likely	Interesting	
15	1 item	Very likely	Interesting	
16	1 item	Very likely	Very interesting	
17	4-5 items	Somewhat likely	Very interesting	Keep pushing. The idea is good.
18	2-3 items	Very likely	Very interesting	
19	1 item	Somewhat likely	Interesting	
20	None	Neutral	Interesting	
21	None	Somewhat likely	Interesting	
22	None	Neutral	Interesting	
23	None	Neutral	Interesting	/
24	None	Neutral	Interesting	/
25	None	Neutral	Interesting	/
26	None	Neutral	Interesting	/
27	None	Neutral	Interesting	
28	None	Somewhat likely	Interesting	
29	1 item	Neutral	Interesting	
30	2-3 items	Very likely	Very interesting	
31	2-3 items	Very likely	Very interesting	Translate the platform to other languages
32	2-3 items	Very likely	Very interesting	User interface should be improved. Numpad can't be used to change layout dimensions. Items search box is not visible when using a laptop (one must scroll to see it).
33	None	Somewhat likely	Interesting	
34	None	Neutral	Interesting	Interesting but should be improved.
35	1 item	Very likely	Very interesting	
36	4-5 items	Somewhat likely	Very interesting	I think that FurnitSaver is a good idea but the user experience should to be improved.
37	2-3 items	Somewhat likely	Very interesting	
38	None	Very unlikely	Interesting	
39	2-3 items	Somewhat likely	Very interesting	
40	1 item	Somewhat likely	Very interesting	My suggestion is to improve the application by making the furniture look more realistic
41	4-5 items	Very likely	Very interesting	It could be interesting to be able to model the room using the smartphone, making an app detect the walls, windows, and so on. Or at least, get a first approach. This would drastically reduce the steps to obtain realistic results.
42	2-3 items	Somewhat likely	Very interesting	
43	1 item	Neutral	Interesting	I haven't been able to connect to the webpage. The behaviour is quite erratic. It needs debugging. I have tried with Chrome and IExplorer and get the same result
44	1 item	Very likely	Very interesting	
45	2-3 items	Somewhat likely	Interesting	
46	4-5 items	Very likely	Very interesting	
47	1 item	Neutral	Interesting	
48	2-3 items	Somewhat likely	Interesting	
49	2-3 items	Very likely	Very interesting	
50	None	Very likely	Very interesting	

Scenario 2

	1	2	3	4	5	6	7
	Gender	Age	Occupation	City	Country	Which devices do you have	How many times do you connect to Internet?
1	Female	51	Administrativa	La Sénia	Spain	Smartphone, PC / Laptop, Tablet	Several times a day
2	Female	45	Ama de casa	La Sénia	Spain	Smartphone, PC / Laptop, Tablet	Several times a day
3	Female	47	Operaria fábrica	Tarragona	Spain	Smartphone, PC / Laptop, Tablet	Several times a day
4	Male	57	Administrativo	Castelló	Spain	Smartphone, PC / Laptop, Tablet	Several times a day
5	Female	24	Estudiante	Barcelona	Spain	Smartphone, PC / Laptop, Tablet	Several times a day
6	Female	43	Empleada supermercado	Reus	Spain	Smartphone, PC / Laptop	Several times a day
7	Female	37	Administrativa	Vinaròs	Spain	Smartphone, PC / Laptop, Tablet	Several times a day
8	Female	55	Vendedora de muebles	Tarragona	Spain	Smartphone, PC / Laptop	Several times a day
9	Female	39	Peluquera	Amposta	Spain	Smartphone, PC / Laptop, Tablet	Once a day
10	Female	50	Trabajo por cuenta propia	Tortosa	Spain	Smartphone, PC / Laptop	Several times a day
11	Male	33	Bank employee	Tortosa	Spain	Smartphone, PC / Laptop	Several times a day
12	Female	47	Encargada de logística	Benicarló	Spain	Smartphone, PC / Laptop, Tablet	Once a day
13	Female	32	Ama de casa	Vilafranca del Penedés	Spain	Smartphone, PC / Laptop	Several times a day
14	Female	51	Administrativa	La Sénia	Spain	Smartphone, PC / Laptop, Tablet	Several times a day
15	Female	45	Ama de casa	La Senia	Spain	Smartphone, PC / Laptop, Tablet	Several times a day
16	Female	57	Operaria Fabrica	Tarragona	Spain	Smartphone, PC / Laptop, Tablet	Several times a day
17	Male	57	Administrativo	Castella	Spain	Smartphone, PC / Laptop, Tablet	Several times a day
18	Female	24	Estudiante	Barcelona	Spain	Smartphone, PC / Laptop, Tablet	Several times a day
19	Female	43	Empleada supermercado	Reus	Spain	Smartphone, PC / Laptop	Several times a day
20	Female	37	Administrativa	Vinaros	Spain	Smartphone, PC / Laptop, Tablet	Several times a day
21	Female	55	Vendedora de muebles	Tarragona	Spain	Smartphone, PC / Laptop	Several times a day
22	Female	39	Peluquera	Amposta	Spain	Smartphone, PC / Laptop, Tablet	Once a day
23	Female	50	Trabajo por cuenta propia	Tortosa	Spain	Smartphone, PC / Laptop	Several times a day
24	Male	33	Empleado banca	Martorell	Spain	Smartphone, PC / Laptop, Tablet	Several times a day
25	Female	28	Administrativa	Martorell	Spain	Smartphone, PC / Laptop	Several times a day
26	Female	46	Administrativa	L'Hospitalet de Llobregat	Spain	Smartphone, PC / Laptop	Several times a day
27	Female	58	Ama de casa	Reus	Spain	Smartphone	Other frequency
28	Male	45	Comercial	Montroig del camp	Spain	Smartphone, PC / Laptop, Tablet	Several times a day
29	Female	35	Encargada supermercado	Tortosa	Spain	Smartphone, PC / Laptop, Tablet	Once a day
30	Male	42	Técnico Laboratorio	Amposta	Spain	Smartphone, PC / Laptop, Tablet	Several times a day
31	Female	26	Vendedora tienda de electrc	Vinaròs	Spain	Smartphone, Tablet	Several times a day
32	Male	40	Autónomo	Reus	Spain	Smartphone, PC / Laptop	Other frequency
33	Female	36	teacher at primary school	Žiri	Slovenia	Tablet	Several times a day
34	Male	38	Autónomo	Badalona	Spain	Smartphone, PC / Laptop	Several times a day
35	Female	28	Auxiliar Administrativa	Martorell	Spain	Smartphone, PC / Laptop, Tablet	Several times a day
36	Female	30	Comercial en supermercado	Abrera	Spain	Smartphone, PC / Laptop, Tablet	Several times a day
37	Female	52	Ama de casa	Amposta	Spain	Smartphone	Never or almost never
38	Male	35	Agricultor	Amposta	Spain	Smartphone, PC / Laptop	Once a day
39	Female	44	Trabaja en una panadería	Ulldecona	Spain	Smartphone, PC / Laptop	Several times a day
40	Female	50	Economista	Cornellà	Spain	Smartphone, PC / Laptop, Tablet	Several times a day
41	Male	32	Contable	Godall	Spain	Smartphone, PC / Laptop, Tablet	Several times a day
42	Male	55	Conductor	Vinaros	Spain	Smartphone, PC / Laptop, Tablet	Several times a day
43	Male	47	Trabajador en empresa de n	Tarragona	Spain	Smartphone, PC / Laptop	Cada 2 ó 3 días
44	Female	25	Estudiante	Tarragona	Spain	Smartphone, PC / Laptop, Tablet	Several times a day
45	Male	39	Administrativo	Sitges	Spain	Smartphone, PC / Laptop, Tablet	Several times a day
46	Female	42	Peluquera	Vinaroz	Spain	Smartphone, PC / Laptop	Once a day
47	Male	52	Director de banca	Barcelona	Spain	Smartphone, PC / Laptop	Several times a day
48	Female	50	Ama de casa	Barcelona	Spain	Smartphone, Tablet	Cada 2 ó 3 días
49	Female	37	Empleada en tienda de moc	Reus	Spain	Smartphone, PC / Laptop, Tablet	Several times a day
50	Female	35	Arquitecta	Sitges	Spain	Smartphone, PC / Laptop, Tablet	Several times a day
51	Male	27	Transportista	Castellón	Spain	Smartphone	Several times a day
52	Male	54	Mantenimiento	Tortosa	Spain	Smartphone, PC / Laptop, Tablet	Several times a day
53	Female	50	Enfermera	Tortosa	Spain	Smartphone, PC / Laptop, Tablet	Several times a day
54	Female	52	Enfermera	Cuenca	Spain	Smartphone, PC / Laptop	Several times a day
55	Female	49	Secretaria	Santa Barbara	Spain	Smartphone, PC / Laptop	Several times a day
56	Female	50	Enfermera	Sant Feliu de Guixols	Spain	Smartphone, PC / Laptop	Several times a day
57	Male	55	Agricultor	Deltebre	Spain	Smartphone, PC / Laptop, Tablet	Once a day
58	Female	50	Auxiliar enfermeria	Benicarló	Spain	Smartphone, PC / Laptop	Several times a day
59	Male	54	Carpintero	Roquetes	Spain	Smartphone	Several times a day

	8	9	10	11	12	13
	When was the last time that you bought products and/or services using Internet?	How often do you buy furniture or decoration accessories?	Concerning your furniture or decoration accessories purchases, which percentage of them are done on-line?	Last time you bought furniture, did you use the Internet to look for furniture?	Last time you bought furniture, where was it?	How do you prefer buying furniture?
1	One month ago or less	Rarely, when I need it	0% to 25%	Yes	Online	See the product in store and then buy it online
2	Between 1 month and 1 year ago	Rarely, when I need it	0% to 25%	No	Shop	See the product online and then buy in store
3	More than one year ago	Rarely, when I need it	0% to 25%	Yes	Shop	See and buy the product in store
4	One month ago or less	Rarely, when I need it	0% to 25%	No	Shop	See the product online and then buy in store
5	One month ago or less	Rarely, when I need it	0% to 25%	Yes	Shop	See the product online and then buy in store
6	More than one year ago	Rarely, when I need it	0% to 25%	No	Shop	See and buy the product in store
7	One month ago or less	Rarely, when I need it	0% to 25%	No	Shop	See and buy the product in store
8	Between 1 month and 1 year ago	Rarely, when I need it	0% to 25%	No	Shop	See and buy the product in store
9	Between 1 month and 1 year ago	Rarely, when I need it	0% to 25%	No	Shop	See and buy the product in store
10	Between 1 month and 1 year ago	Rarely, when I need it	0% to 25%	Yes	Shop	See the product online and then buy in store
11	One month ago or less	Rarely, when I need it	0% to 25%	Yes	Shop	See the product online and then buy in store
12	Between 1 month and 1 year ago	Rarely, when I need it	0% to 25%	Yes	Shop	See the product online and then buy in store
13	Between 1 month and 1 year ago	Rarely, when I need it	0% to 25%	Yes	Shop	See the product online and then buy in store
14	One month ago or less	Rarely, when I need it	0% to 25%	Yes	Online	See the product in store and then buy it online
15	Between 1 month and 1 year ago	Rarely, when I need it	0% to 25%	No	Shop	See the product online and then buy in store
16	More than one year ago	Rarely, when I need it	0% to 25%	Yes	Shop	See and buy the product in store
17	One month ago or less	Rarely, when I need it	0% to 25%	No	Shop	See the product online and then buy in store
18	One month ago or less	Rarely, when I need it	0% to 25%	Yes	Shop	See the product online and then buy in store
19	More than one year ago	Rarely, when I need it	0% to 25%	No	Shop	See and buy the product in store
20	One month ago or less	Rarely, when I need it	0% to 25%	No	Shop	See and buy the product in store
21	Between 1 month and 1 year ago	Rarely, when I need it	0% to 25%	No	Shop	See and buy the product in store
22	Between 1 month and 1 year ago	Rarely, when I need it	0% to 25%	No	Shop	See and buy the product in store
23	Between 1 month and 1 year ago	Rarely, when I need it	0% to 25%	Yes	Shop	See the product online and then buy in store
24	One month ago or less	Rarely, when I need it	26% to 50%	Yes	Online	See the product in store and then buy it online
25	One month ago or less	Once a year	0% to 25%	Yes	Shop	See the product online and then buy in store
26	One month ago or less	Once a year	0% to 25%	Yes	Shop	See the product online and then buy in store
27	Between 1 month and 1 year ago	Rarely, when I need it	0% to 25%	No	Shop	See and buy the product in store
28	Between 1 month and 1 year ago	Rarely, when I need it	0% to 25%	No	Shop	See and buy the product in store
29	One month ago or less	Rarely, when I need it	0% to 25%	No	Shop	See and buy the product in store
30	One month ago or less	Rarely, when I need it	0% to 25%	Yes	Shop	See the product online and then buy in store
31	Between 1 month and 1 year ago	Rarely, when I need it	0% to 25%	No	Shop	See the product online and then buy in store
32	More than one year ago	Rarely, when I need it	0% to 25%	Yes	Shop	See and buy the product in store
33	One month ago or less	Once a year	0% to 25%	No	Shop	See the product online and then buy in store
34	One month ago or less	Rarely, when I need it	26% to 50%	Yes	Online	See the product online and then buy in store
35	Between 1 month and 1 year ago	Rarely, when I need it	26% to 50%	Yes	Shop	See the product online and then buy in store
36	Between 1 month and 1 year ago	Rarely, when I need it	0% to 25%	No	Shop	See and buy the product in store
37	Never	Rarely, when I need it	0% to 25%	No	Shop	See and buy the product in store
38	More than one year ago	Rarely, when I need it	0% to 25%	Yes	Shop	See the product online and then buy in store
39	Between 1 month and 1 year ago	Rarely, when I need it	0% to 25%	Yes	Shop	See the product online and then buy in store
40	Between 1 month and 1 year ago	Rarely, when I need it	0% to 25%	No	Shop	See the product online and then buy in store
41	Between 1 month and 1 year ago	Rarely, when I need it	0% to 25%	Yes	Shop	See the product online and then buy in store
42	Between 1 month and 1 year ago	Rarely, when I need it	0% to 25%	No	Shop	See and buy the product in store
43	Between 1 month and 1 year ago	Rarely, when I need it	0% to 25%	No	Shop	See and buy the product in store
44	Between 1 month and 1 year ago	Rarely, when I need it	0% to 25%	No	Shop	See and buy the product in store
45	Between 1 month and 1 year ago	Once a year	0% to 25%	Yes	Online	See the product online and then buy in store
46	One month ago or less	Rarely, when I need it	0% to 25%	No	Shop	See and buy the product in store
47	Between 1 month and 1 year ago	Rarely, when I need it	0% to 25%	No	Shop	See and buy the product in store
48	Between 1 month and 1 year ago	Rarely, when I need it	0% to 25%	No	Shop	See and buy the product in store
49	One month ago or less	Once a year	0% to 25%	Yes	Online	See the product online and then buy in store
50	Between 1 month and 1 year ago	Once a year	26% to 50%	Yes	Online	See and buy the product online
51	Never	Rarely, when I need it	0% to 25%	No	Shop	See and buy the product in store
52	Between 1 month and 1 year ago	Rarely, when I need it	0% to 25%	No	Shop	See the product online and then buy in store
53	Between 1 month and 1 year ago	Rarely, when I need it	0% to 25%	Yes	Shop	See the product online and then buy in store
54	One month ago or less	Rarely, when I need it	0% to 25%	Yes	Online	See and buy the product online
55	Between 1 month and 1 year ago	Rarely, when I need it	0% to 25%	Yes	Shop	See and buy the product in store
56	Between 1 month and 1 year ago	Rarely, when I need it	0% to 25%	Yes	Shop	See the product online and then buy in store
57	Never	Rarely, when I need it	0% to 25%	No	Shop	See and buy the product in store
58	Between 1 month and 1 year ago	Rarely, when I need it	0% to 25%	Yes	Shop	See and buy the product in store
59	Never	Rarely, when I need it	0% to 25%	Yes	Online	See and buy the product in store

ICT-18-2014-645067

	16	17	18	19
	Do you consider important visualizing the furniture in the Virtual Reality Environment for your purchasing process?	Do you consider important visualizing the furniture in the Augmented Reality application for your	What is the best of the FurnIT?	What is the worst of the FurnIT?
1	Important	Important	To be able to visualize the furniture "in situ" in the place where they will be located	Nothing
2	Important	Important	To be able to visualize the furniture "in situ" in the place where they will be located	Everything is interesting
3	Important	Important	To be able to visualize the furniture "in situ" in the place where they will be located	Nothing
4	Essential	Important	The ease use and the speed to furnish	It is not possible to resize the furniture
5	Important	Important	To be able to visualize the furniture "in situ" in the place where they will be located	I have nothing to say
6	Important	Important	To be able to visualize the furniture "in situ" in the place where they will be located	I don't know
7	Important	Important	To be able to visualize the furniture "in situ" in the place where they will be located	Everything is interesting
8	Important	Important	To be able to visualize the furniture "in situ" in the place where they will be located	Everything is interesting
9	Important	Important	Everything	I have nothing to say
10	Important	Important	To be able to visualize the furniture "in situ" in the place where they will be located	I have nothing to say
11	Essential	Essential	To be able to visualize the furniture "in situ" in the place where they will be located	It is not possible to resize the furniture
12	Important	Important	To be able to visualize the furniture "in situ" in the place where they will be located	The recommender doesn't recommend where to put the furniture
13	Important	Important	Design the room and see how the furniture looks on it.	Nothing
14	Important	Important	To be able to visualize the furniture "in situ" in the place where they will be located	Everything is interesting
15	Important	Important	To be able to visualize the furniture "in situ" in the place where they will be located	Everything is interesting
16	Important	Important	To be able to visualize the furniture "in situ" in the place where they will be located	Nothing
17	Essential	Important	The ease use and the speed to furnish	It is not possible to resize the furniture
18	Important	Important	To be able to visualize the furniture "in situ" in the place where they will be located	I have nothing to say
19	Important	Important	To be able to visualize the furniture "in situ" in the place where they will be located	Nothing
20	Important	Important	To be able to visualize the furniture "in situ" in the place where they will be located	Everything is interesting
21	Important	Important	To be able to visualize the furniture "in situ" in the place where they will be located	Everything is interesting
22	Important	Important	Everything	I have nothing to say
23	Important	Important	To be able to visualize the furniture "in situ" in the place where they will be located	Nothing
24	Important	Important	To be able to visualize the furniture "in situ" in the place where they will be located	Nothing
25	Important	Important	To be able to visualize the furniture "in situ" in the place where they will be located	Nothing
26	Important	Essential	To be able to visualize the furniture "in situ" in the place where they will be located	Everything is interesting
27	Important	Important	To be able to visualize the furniture "in situ" in the place where they will be located	Nothing
28	Important	Essential	Everything	I have nothing to say
29	Important	Important	To be able to visualize the furniture "in situ" in the place where they will be located	Everything is interesting
30	Essential	Essential	It is useful	Nothing
31	Important	Important	To be able to visualize the furniture "in situ" in the place where they will be located	I don't know
32	Important	Important	It seems practical	Nothing
33	Important	Important	To see the furniture in my own home	/
34	Essential	Essential	To see the furniture in my own home	Everything is interesting
35	Important	Important	To see the furniture in my own home	Everything is interesting
36	Important	Important	It helps you to decide between the furniture	Everything is interesting
37	Important	Important	Everything	Everything is interesting
38	Important	Important	The ease use and the speed to furnish	Everything is interesting
39	Essential	Essential	Everything	I have nothing to say
40	Important	Important	To be able to do your own designs and see them	I have nothing to say
41	Essential	Essential	Everything	I have nothing to say
42	Important	Important	To see the furniture in my own home	Everything is interesting
43	Important	Important	To be able to do your own designs and see them	Nothing
44	Essential	Essential	To be able to visualize the furniture "in situ" in the place where they will be located	Everything is interesting
45	Essential	Essential	The ease use and the speed to furnish	It is not possible to resize the furniture
46	Important	Important	You could have a real idea about how the furniture will look	Everything is interesting
47	Important	Important	To see the furniture in my own home	I don't know
48	Important	Important	You could have a real idea about how the furniture will look	Everything is interesting
49	Essential	Essential	The ease use and the speed to furnish	Everything is interesting
50	Essential	Essential	It seems practical	I like it
51	Important	Important	It is very useful	I like it
52	Essential	Essential	To see the furniture in my own home	Nothing
53	Important	Important	The virtual reality environment	Nothing
54	Important	Important	To be able to do your own designs and see them	Nothing
55	Important	Important	The augmented reality app	Nothing
56	Essential	Important	To be able to visualize the furniture "in situ" in the place where they will be located	I have nothing to say
57	Essential	Important	Everything	I have nothing to say
58	Important	So So	To be able to do your own designs and see them	I don't know
59	Important	Important	The augmented reality app	Nothing

	20	21	22	23	24	25
	How positive are these aspects of the FurnIT platform for you? [Visualizing lots of furniture combinations]	How positive are these aspects of the FurnIT platform for you? [Useful recommendator that]	How positive are these aspects of the FurnIT platform for you? [Saving different furniture combinations]	How negative are these aspects of the FurnIT platform for you? [Too Complex]	How negative are these aspects of the FurnIT platform for you? [Too many steps]	How negative are these aspects of the FurnIT platform for you? [Not much furniture pieces]
1	(+++)	(+++)	(+++)	0	0	(--)
2	(+++)	(+++)	(+++)	0	0	(-)
3	(++)	(++)	(+++)	0	0	(-)
4	(+++)	(+)	(+++)	0	0	(-)
5	(++)	(++)	(+++)	0	0	(-)
6	(+++)	(++)	(++)	(-)	0	(-)
7	(+++)	(+++)	(+++)	0	(-)	(-)
8	(+++)	(++)	(+++)	(--)	(-)	0
9	(++)	(+++)	(+++)	(-)	0	0
10	(+++)	(+)	(++)	0	0	0
11	(+++)	(+++)	(+++)	0	0	0
12	(+++)	(++)	(++)	(-)	(-)	(-)
13	(+++)	(++)	(+)	0	0	(-)
14	(+++)	(+++)	(+++)	0	0	(--)
15	(+++)	(+++)	(+++)	0	0	(-)
16	(++)	(++)	(+++)	0	0	(-)
17	(+++)	(+)	(+++)	0	0	(-)
18	(++)	(++)	(+++)	0	0	(-)
19	(+++)	(++)	(++)	(-)	0	(-)
20	(+++)	(+++)	(+++)	0	(-)	(-)
21	(+++)	(++)	(+++)	(--)	(-)	0
22	(++)	(+++)	(+++)	(-)	0	0
23	(+++)	(+)	(++)	0	0	0
24	(++)	(+)	(+++)	(-)	(-)	(-)
25	(++)	(++)	(+++)	(-)	(-)	(-)
26	(++)	(+)	(+++)	(-)	0	(-)
27	(++)	(++)	(++)	(--)	(--)	(-)
28	(++)	(+++)	(+++)	0	0	0
29	(+++)	(+)	(++)	(-)	0	(--)
30	(+++)	(+)	(+++)	0	(-)	(-)
31	(+)	(+++)	(+++)	(-)	(-)	(-)
32	(+)	(+++)	(++)	(-)	0	(-)
33	(+++)	(++)	(++)	0	0	0
34	(+++)	(++)	(+++)	(-)	0	(-)
35	(+++)	(+++)	(+++)	0	0	(-)
36	(+++)	(++)	(+++)	0	0	0
37	(+++)	(+++)	(+++)	(-)	(--)	0
38	(+++)	(+++)	(+++)	0	(-)	(-)
39	(+++)	(++)	(+++)	0	0	0
40	(+++)	(+++)	(+++)	0	0	0
41	(+++)	(++)	(+++)	0	0	0
42	(+++)	(+++)	(+++)	0	(--)	(--)
43	(++)	(+)	(++)	(-)	(-)	0
44	(+++)	(+++)	(+++)	0	0	(-)
45	(++)	(++)	(+++)	0	0	(-)
46	(++)	(++)	(+++)	0	(-)	(-)
47	(+++)	(+)	(+++)	(-)	(-)	(--)
48	(+++)	(+++)	(+++)	(-)	(-)	(-)
49	(++)	(+++)	(+++)	0	0	(-)
50	(++)	(++)	(++)	0	0	(-)
51	(+++)	(+++)	(+++)	(-)	(-)	0
52	(+++)	(++)	(++)	0	0	(-)
53	(+++)	(+)	(+++)	0	(-)	(-)
54	(++)	(++)	(+++)	0	(-)	(-)
55	(+++)	(++)	(++)	0	0	(-)
56	(+++)	(+++)	(+++)	(-)	0	(-)
57	(+++)	(+++)	(++)	0	(-)	(-)
58	(++)	(+++)	(+)	0	0	(-)
59	(++)	(++)	(+)	(-)	(-)	(-)

	26	27	28	29	30	31	32
	Would you use the FurnIT platform in the future?	Would you recommend the FurnIT platform?	On a scale of 1-5, how satisfied are you with the platform content organisation? (1- not satisfied, 5- very satisfied)	On a scale of 1-5, how intuitive is the FurnIT platform content organisation? (1- not intuitive, 5- very intuitive)	On a scale of 1-5, assess your user experience (1 - very bad, 5 - very good)	On a scale of 1-10, how satisfied are you with the service given to you at the shop? (1- not satisfied, 10 - very satisfied)	How likely is it that your satisfaction will improve thanks to using FurnIT?
1	Yes, for sure	Yes, for sure	4	4	4	7	Very likely
2	Yes, I think so	Yes, for sure	4	4	5	10	Very likely
3	Yes, for sure	Yes, for sure	3	4	4	8	Very likely
4	Yes, for sure	Yes, for sure	3	4	5	5	Very likely
5	Yes, for sure	Yes, for sure	5	5	5	6	Very likely
6	Yes, I think so	Yes, I think so	5	3	5	8	Very likely
7	Yes, for sure	Yes, for sure	5	5	5	9	Very likely
8	Yes, for sure	Yes, I think so	4	4	4	10	Very likely
9	Yes, for sure	Yes, for sure	4	3	5	9	Very likely
10	Yes, I think so	Yes, I think so	4	4	4	8	Very likely
11	Yes, for sure	Yes, for sure	4	4	4	8	Very likely
12	Yes, I think so	Yes, for sure	4	4	4	7	Very likely
13	Yes, for sure	Yes, for sure	4	4	4	5	Very likely
14	Yes, for sure	Yes, for sure	4	4	4	7	Very likely
15	Yes, for sure	Yes, for sure	4	4	5	10	Very likely
16	Yes, for sure	Yes, for sure	3	4	4	8	Very likely
17	Yes, for sure	Yes, for sure	3	4	5	5	Very likely
18	Yes, for sure	Yes, for sure	5	5	5	6	Very likely
19	Yes, I think so	Yes, I think so	5	3	5	8	Very likely
20	Yes, for sure	Yes, for sure	5	5	5	9	Very likely
21	Yes, for sure	Yes, I think so	4	4	4	10	Very likely
22	Yes, for sure	Yes, for sure	4	3	5	9	Very likely
23	Yes, I think so	Yes, I think so	4	4	4	8	Very likely
24	Yes, I think so	Yes, for sure	4	5	4	7	Somewhat likely
25	Yes, for sure	Yes, for sure	4	4	4	9	Very likely
26	Yes, I think so	Yes, I think so	4	4	4	9	Very likely
27	Maybe	Yes, I think so	4	3	4	9	Somewhat likely
28	Yes, I think so	Yes, I think so	4	4	4	10	Very likely
29	Yes, for sure	Yes, for sure	5	4	5	7	Very likely
30	Yes, I think so	Yes, I think so	4	3	4	9	Somewhat likely
31	Yes, I think so	Yes, I think so	4	5	4	7	Somewhat likely
32	Yes, I think so	Yes, I think so	3	4	5	10	Very likely
33	Yes, I think so	Yes, I think so	4	4	4	8	Somewhat likely
34	Yes, for sure	Yes, I think so	4	3	5	8	Very likely
35	Yes, for sure	Yes, for sure	5	4	5	10	Very likely
36	Yes, I think so	Yes, I think so	4	4	5	8	Very likely
37	Maybe	Yes, I think so	4	3	4	9	Very likely
38	Yes, I think so	Yes, for sure	4	4	4	9	Somewhat likely
39	Yes, for sure	Yes, for sure	5	5	5	7	Very likely
40	Yes, for sure	Yes, for sure	4	5	4	8	Very likely
41	Yes, for sure	Yes, for sure	5	5	5	7	Very likely
42	Yes, I think so	Yes, for sure	4	4	4	9	Somewhat likely
43	Maybe	Yes, I think so	4	3	4	10	Neutral
44	Yes, for sure	Yes, for sure	5	4	5	10	Very likely
45	Yes, I think so	Yes, for sure	5	4	5	8	Very likely
46	Yes, I think so	Yes, for sure	4	4	5	9	Very likely
47	Yes, I think so	Yes, I think so	4	3	4	8	Very likely
48	Yes, I think so	Yes, I think so	5	4	5	10	Very likely
49	Yes, for sure	Yes, for sure	5	5	5	9	Very likely
50	Yes, I think so	Yes, I think so	4	5	4	8	Neutral
51	Yes, I think so	Yes, I think so	4	4	5	10	Very likely
52	Yes, for sure	Yes, for sure	4	5	4	6	Very likely
53	Yes, I think so	Yes, I think so	4	4	4	6	Somewhat likely
54	Yes, for sure	Yes, for sure	4	4	4	4	Very likely
55	Yes, for sure	Yes, for sure	5	4	5	4	Very likely
56	Yes, for sure	Yes, for sure	5	2	4	4	Very likely
57	Yes, for sure	Yes, for sure	4	4	5	6	Very likely
58	Yes, I think so	Yes, I think so	3	4	4	7	Somewhat likely
59	Yes, I think so	Yes, I think so	4	3	4	8	Very likely

	33	34	35	36	37	38
	Please estimate on a scale of 1-10, how satisfied you would be with the service given to you at the shop once FurnIT is used? (1- not satisfied, 10 - very satisfied)	Please estimate on a scale of 1-10, how likely are you in the present to shop again at this store? (1- highly unlikely, 10 - very likely)	How likely is it that this number improves using FurnIT in the store?	Please estimate on a scale of 1-10, how likely are you to shop here again once FurnIT is used regularly in the store? (1- highly unlikely, 10 - very likely)	Have you recently returned any furniture items you've purchased? (for example, in cases the product did not match your expectations or was delivered damaged).	"Using FurnIT I will be more confident when buying a furniture and less likely to return it." To which degree do you agree or disagree with this statement?
1	10	5	Very likely	9	I haven't bought any furniture recently	Agree
2	10	8	Very likely	10	I haven't bought any furniture recently	Agree
3	10	5	Very likely	8	I haven't bought any furniture recently	Strongly agree
4	8	8	Very likely	10	I haven't bought any furniture recently	Neutral
5	10	3	Very likely	10	No, I haven't	Strongly agree
6	10	8	Very likely	10	I haven't bought any furniture recently	Strongly agree
7	10	9	Very likely	10	I haven't bought any furniture recently	Agree
8	10	9	Very likely	10	I haven't bought any furniture recently	Agree
9	10	8	Very likely	9	I haven't bought any furniture recently	Agree
10	10	3	Somewhat likely	7	No, I haven't	Strongly agree
11	9	8	Very likely	9	No, I haven't	Strongly agree
12	8	7	Somewhat likely	7	I haven't bought any furniture recently	Agree
13	10	9	Very likely	10	I haven't bought any furniture recently	Strongly agree
14	10	5	Very likely	9	I haven't bought any furniture recently	Agree
15	8	10	Very likely	10	I haven't bought any furniture recently	Agree
16	10	5	Very likely	8	I haven't bought any furniture recently	Strongly agree
17	8	8	Very likely	10	I haven't bought any furniture recently	Neutral
18	10	3	Very likely	10	No, I haven't	Strongly agree
19	10	8	Very likely	10	I haven't bought any furniture recently	Strongly agree
20	10	9	Very likely	10	I haven't bought any furniture recently	Agree
21	10	9	Very likely	10	I haven't bought any furniture recently	Agree
22	10	8	Very likely	9	I haven't bought any furniture recently	Agree
23	10	3	Somewhat likely	7	No, I haven't	Strongly agree
24	8	7	Somewhat likely	7	No, I haven't	Agree
25	10	8	Very likely	9	No, I haven't	Agree
26	7	8	Somewhat likely	8	I haven't bought any furniture recently	Agree
27	8	9	Neutral	6	No, I haven't	Agree
28	9	8	Somewhat likely	9	No, I haven't	Agree
29	8	8	Somewhat likely	10	I haven't bought any furniture recently	Agree
30	7	8	Somewhat likely	7	No, I haven't	Agree
31	8	9	Very likely	9	I haven't bought any furniture recently	Agree
32	10	6	Somewhat likely	10	No, I haven't	Agree
33	8	8	Somewhat likely	8	No, I haven't	Agree
34	9	7	Neutral	7	No, I haven't	Agree
35	10	8	Very likely	10	I haven't bought any furniture recently	Agree
36	8	8	Somewhat likely	9	No, I haven't	Agree
37	8	9	Somewhat likely	9	I haven't bought any furniture recently	Neutral
38	10	8	Very likely	9	I haven't bought any furniture recently	Agree
39	10	10	Very likely	10	I haven't bought any furniture recently	Agree
40	9	7	Very likely	9	I haven't bought any furniture recently	Strongly agree
41	10	7	Somewhat likely	9	No, I haven't	Strongly agree
42	10	8	Very likely	9	I haven't bought any furniture recently	Agree
43	7	9	Somewhat likely	8	I haven't bought any furniture recently	Agree
44	10	10	Very likely	10	No, I haven't	Strongly agree
45	9	9	Somewhat likely	8	No, I haven't	Agree
46	8	10	Very likely	10	No, I haven't	Agree
47	8	8	Somewhat likely	9	I haven't bought any furniture recently	Agree
48	10	9	Very likely	10	No, I haven't	Agree
49	10	8	Very likely	10	No, I haven't	Strongly agree
50	7	8	Somewhat likely	7	No, I haven't	Agree
51	8	10	Very likely	10	No, I haven't	Agree
52	9	5	Very likely	9	I haven't bought any furniture recently	Strongly agree
53	8	7	Somewhat likely	8	No, I haven't	Agree
54	8	5	Somewhat likely	6	No, I haven't	Agree
55	9	4	Somewhat likely	9	No, I haven't	Strongly agree
56	10	5	Very likely	10	No, I haven't	Strongly agree
57	10	8	Very likely	10	No, I haven't	Strongly agree
58	8	7	Somewhat likely	8	I haven't bought any furniture recently	Agree
59	9	8	Somewhat likely	9	I haven't bought any furniture recently	Agree

	39	40	41	42
	How many items do you normally purchase when shopping here? - please consider furniture and design accessories (such as decoration items, textiles, etc).	How likely is it that using FurnIT you would purchase more items? - for example, try to imagine how likely you are to purchase not only a sofa, but also cushions that match	What is your general opinion of the FurnIT platform?	Add any comment and/or suggestion if you have it, please...
1	2-3 items	Very likely	Very interesting	Curious, open new possibilities
2	2-3 items	Somewhat likely	Very interesting	
3	2-3 items	Somewhat likely	Very interesting	Very good as novelty
4	2-3 items	Very likely	Very interesting	It is not possible to resize the furniture
5	2-3 items	Very likely	Very interesting	
6	2-3 items	Somewhat likely	Very interesting	
7	2-3 items	Somewhat likely	Very interesting	
8	1 item	Very likely	Very interesting	I like it a lot because is more than I knew
9	2-3 items	Neutral	Interesting	
10	2-3 items	Very likely	Very interesting	
11	2-3 items	Very likely	Very interesting	
12	1 item	Very likely	Very interesting	The recommender should recommend the furniture location as well
13	2-3 items	Very likely	Very interesting	
14	2-3 items	Very likely	Very interesting	Curious, open new possibilities
15	2-3 items	Somewhat likely	Very interesting	
16	2-3 items	Somewhat likely	Very interesting	Very good as novelty
17	2-3 items	Very likely	Very interesting	It is not possible to resize the furniture
18	2-3 items	Very likely	Very interesting	
19	2-3 items	Somewhat likely	Very interesting	
20	2-3 items	Somewhat likely	Very interesting	
21	1 item	Very likely	Very interesting	I like it a lot because is more than I knew
22	2-3 items	Neutral	Interesting	
23	2-3 items	Very likely	Very interesting	
24	2-3 items	Somewhat likely	Interesting	It helps to take decisions in your buying process
25	2-3 items	Very likely	Very interesting	Very practical
26	1 item	Very likely	Very interesting	
27	1 item	Somewhat likely	Interesting	
28	2-3 items	Somewhat likely	Interesting	Very interesting
29	1 item	Somewhat likely	Interesting	
30	2-3 items	Neutral	Very interesting	
31	1 item	Very likely	Very interesting	
32	2-3 items	Neutral	Very interesting	
33	1 item	Neutral	Very interesting	/
34	1 item	Somewhat likely	Very interesting	
35	1 item	Very likely	Very interesting	I like it a lot. I don't know that this could be possible.
36	1 item	Very likely	Very interesting	
37	2-3 items	Somewhat likely	Very interesting	
38	2-3 items	Somewhat likely	Very interesting	
39	2-3 items	Somewhat likely	Very interesting	
40	2-3 items	Somewhat likely	Very interesting	
41	1 item	Somewhat likely	Very interesting	
42	2-3 items	Somewhat likely	Very interesting	
43	1 item	Somewhat likely	Interesting	
44	1 item	Very likely	Very interesting	
45	2-3 items	Very likely	Very interesting	
46	2-3 items	Very likely	Very interesting	
47	2-3 items	Somewhat likely	Interesting	
48	2-3 items	Very likely	Very interesting	
49	1 item	Very likely	Very interesting	
50	1 item	Somewhat likely	Interesting	
51	1 item	Very likely	Very interesting	
52	2-3 items	Somewhat likely	Very interesting	
53	More than 5 items	Somewhat likely	Interesting	
54	2-3 items	Neutral	Very interesting	
55	2-3 items	Very likely	Very interesting	
56	1 item	Very likely	Very interesting	
57	2-3 items	Very likely	Very interesting	A very good idea
58	2-3 items	Very likely	Interesting	
59	2-3 items	Somewhat likely	Interesting	

Scenario 3

	1	2	3	4	5	6	7
	Gender	Age	Occupation	City	Country	Which devices do you have	How many times do you connect to Internet?
1	Female	40 /		Nova Gorica	Slovenia	Tablet	Several times a day
2	Female	37	housekeeper	Nova Gorica	Slovenia	PC / Laptop	Once a day
3	Male	40	direktor	Ljubljana	Slovenija	Smartphone, PC / Laptop	Several times a day
4	Male	38	SALES EXSECUTIVE	NOVA GORICA	SLOVENIJA	Smartphone, PC / Laptop, Tablet	Every 2 or 3 days
5	Female	38	architect	Ljubljana	slovenia	PC / Laptop	Several times a day
6	Male	54	manager	Ljubljana	Slovenia	Smartphone	Several times a day
7	Male	52	sales	Zagreb	Croatia	Smartphone, PC / Laptop, Tablet	Several times a day
8	Male	42	Teacher	Ljubljana	Slovenija	PC / Laptop	Several times a day
9	Male	46	sales	Ljubljana	Slovenia	PC / Laptop	Several times a day
10	Female	35	teacher	Ljubljana	Slovenia	PC / Laptop, Tablet	Several times a day
11	Male	48	project maneger	Žalec	Slovenia	PC / Laptop, Tablet	Several times a day
12	Female	39	economist	Nova Gorica	Slovenia	Smartphone, PC / Laptop, Tablet	Several times a day
13	Female	26		Ljubljana	Slovenija	Smartphone, PC / Laptop	Several times a day
14	Female	22		Ljubljana	Slovenija	Smartphone, PC / Laptop	Several times a day
15	Female	51	sales	Maribor	Slovenia	PC / Laptop	Several times a day
16	Male	49	Project Manager	Nova Gorica	Slovenia	PC / Laptop	Several times a day
17	Female	40	public administration	Ljubljana	Slovenia	Smartphone, PC / Laptop, Tablet	Several times a day
18	Female	31	NGO	Ljubljana	Slovenija	Smartphone, PC / Laptop	Several times a day
19	Male	25	student	Ljubljana	Slovenia	Smartphone, PC / Laptop, Tablet	Several times a day
20	Female	29	Teacher	Ljubljana	Slovenia	PC / Laptop	Once a day

	8	9	10	11	12	13
	When was the last time that you bought products and/or services using Internet?	How often do you buy furniture or decoration accessories?	Concerning your furniture or decoration accessories purchases, which percentage of	Last time you bought furniture, did you use the Internet to look for furniture?	Last time you bought furniture, where was it?	How do you prefer buying furniture?
1	One month ago or less	Once per season	51% to 75%	Yes	Shop	See the product online and then buy in store
2	Between 6 and 1 month ago	Rarely, when I need it	0% to 25%	Yes	Shop	See and buy the product in store
3	More than one year ago	Once a month	0% to 25%	Yes	Shop	See the product online and then buy in store
4	More than one year ago	Rarely, when I need it	0% to 25%	Yes	Shop	See the product online and then buy in store
5	One month ago or less	Rarely, when I need it	26% to 50%	Yes	Shop	See the product online and then buy in store
6	Between 6 and 1 month ago	Once a year	0% to 25%	Yes	Shop	See the product online and then buy in store
7	One month ago or less	Rarely, when I need it	0% to 25%	Yes	Shop	See the product online and then buy in store
8	One month ago or less	Rarely, when I need it	0% to 25%	Yes	Shop	See the product online and then buy in store
9	Between 6 and 1 month ago	Once a year	0% to 25%	No	Shop	See and buy the product in store
10	More than one year ago	Rarely, when I need it	0% to 25%	Yes	Shop	See the product online and then buy in store
11	Never	Rarely, when I need it	0% to 25%	No	Shop	See and buy the product in store
12	More than one year ago	Once a year	0% to 25%	No	Shop	See and buy the product in store
13	More than one year ago	Rarely, when I need it	0% to 25%	Yes	Shop	See the product online and then buy in store
14	Between 6 and 1 month ago	Rarely, when I need it	0% to 25%	Yes	Shop	See the product online and then buy in store
15	Between 6 and 1 month ago	Once a year	0% to 25%	Yes	Shop	See and buy the product in store
16	More than one year ago	Once a year	0% to 25%	No	Shop	See and buy the product in store
17	One month ago or less	Rarely, when I need it	0% to 25%	Yes	Shop	See the product in store and then buy it online
18	Between 6 and 1 month ago	Once per season	0% to 25%	Yes	Shop	See the product online and then buy in store
19	Between 6 and 1 month ago	Once a month	26% to 50%	Yes	Online	See and buy the product online
20	More than one year ago	Once per season	0% to 25%	No	Shop	See the product online and then buy in store

	14	15	16	17	18
	In case you need to buy furniture, would you use Internet before going to the shop?	Which of the following features are useful for you?	Do you consider important visualizing the furniture in the Virtual Reality	Do you consider important visualizing the furniture in the Augmented Reality	What is the best of the FurnIT?
1	Yes, for sure	Define the room layout us	Important	Important	AR environment
2	Maybe	Visualising furniture using	Important	Important	you can see furniture in real living space
3	Yes, for sure	Define the room layout in	Essential	Important	visualizing
4	Maybe	Using the recommendator	So so	Important	-
5	Yes, for sure	Define the room layout in	Important	Important	usefulness
6	Yes, I think so	Visualising furniture using	Important	Important	Have a big store of furniture and interesting virtual
7	Yes, for sure	Define the room layout in	Important	Important	for easier understanding
8	Yes, for sure	Define the room layout in	Important	Important	each individual can design different interior
9	Yes, for sure	Define the room layout in	Important	Important	ease of use
10	Yes, for sure	Define the room layout us	Essential	Essential	because it is exciting
11	Maybe	Define the room layout in	Important	Important	-
12	Maybe	Define the room layout us	Important	Important	interesting
13	Yes, for sure	Define the room layout us	So so	Important	Simplicity.
14	Yes, I think so	Define the room layout us	Important	So So	visualizing the furniture in my own (virtual)
15	Maybe	Define the room layout us	Important	So So	/
16	Yes, I think so	Define the room layout us	Important	Important	-
17	No	Visualising furniture using	Essential	Important	I suppose the possibility to see the furnished rooms
18	Yes, for sure	Define the room layout in	Important	Important	moving furniture
19	Yes, for sure	Define the room layout us	Important	Important	-
20	Yes, I think so	Visualising furniture using	Important	Important	3D view

	19	20	21	22
	What is the worst of the FurnIT?	How positive are these aspects of the FurnIT platform for you? [Visualizing lots of furniture combinations]	How positive are these aspects of the FurnIT platform for you? [Useful recommendator that helps to take decisions]	How positive are these aspects of the FurnIT platform for you? [Saving different furniture combinations in my personal area]
1	/	(+++)	(++)	(+++)
2	/	(+++)	(++)	(+++)
3	/	(+++)	(+++)	(+++)
4	-	(+++)	(+)	(++)
5	nothing	(++)	(++)	(+++)
6	Moving furniture in the virtual reality space.	(++)	(++)	(+++)
7	new product	(++)	(++)	(++)
8	relative slow working	(++)	()	(+)
9	-	(++)	(++)	(++)
10	nothing	(+++)	(+++)	(+++)
11	-	(+)	(++)	(++)
12		(+)	(++)	(+)
13	Design, layout.	(+++)	(+)	(+++)
14	/	(+++)	(+)	(++)
15	/	(++)	(+++)	(++)
16	-	(+++)	(+++)	(+++)
17	unfortunately, I was not able to test it - I do not understand	(++)	(+)	(++)
18	everything is at least ok	(+++)	(+++)	(+++)
19	-	(+++)	(+++)	(+++)
20	/	(+)	(+)	(+)

	23	24	25	26	27	28	29
	How negative are these aspects of the FurnIT platform for you? [Too Complex]	How negative are these aspects of the FurnIT platform for you? [Too many steps]	How negative are these aspects of the FurnIT platform for you? [Not much furniture pieces]	Would you use the FurnIT platform in the future?	Would you recommend the FurnIT platform?	On a scale of 1-5, how satisfied are you with the platform content organisation? (1- not satisfied, 5- very satisfied)	On a scale of 1-5, how intuitive is the FurnIT platform content organisation? (1- not intuitive, 5- very intuitive)
1	(-)	(-)	(-)	Yes, I think so	Yes, I think so	4	3
2	(-)	()	(-)	Yes, I think so	Yes, I think so	4	4
3	(-)	(--)	()	Yes, I think so	Yes, I think so	3	4
4	(-)	(-)	()	Maybe	Maybe	3	3
5	(-)	(-)	()	Yes, I think so	Yes, for sure	4	4
6	()	(-)	(-)	Yes, I think so	Yes, for sure	4	4
7	(-)	(-)	(-)	Yes, for sure	Yes, for sure	5	4
8	(-)	(-)	()	Yes, I think so	Yes, I think so	4	3
9	()	()	()	Yes, for sure	Yes, for sure	4	4
10	()	()	()	Yes, for sure	Yes, for sure	5	5
11	()	()	(-)	Yes, I think so	Yes, I think so	4	4
12	()	()	()	Maybe	Yes, I think so	3	4
13	(-)	(-)	(--)	Yes, I think so	Yes, I think so	2	2
14	()	()	(-)	Maybe	Yes, I think so	4	3
15	()	(-)	()	Yes, I think so	Yes, for sure	5	4
16	()	()	()	Yes, I think so	Yes, I think so	5	5
17	(--)	(-)	(--)	Maybe	Maybe	2	1
18	()	()	(-)	Maybe	Maybe	3	3
19	()	()	()	Yes, I think so	Yes, I think so	5	5
20	(-)	(-)	(--)	Yes, I think so	Yes, I think so	3	3

	30	31	32	33	34	35
	On a scale of 1-5, assess your user experience (1 - very bad, 5 - very good)	On a scale of 1-10, how satisfied are you with the service given to you at the shop? (1- not satisfied, 10 - very satisfied)	How likely is it that your satisfaction will improve thanks to using FurnIT?	Please estimate on a scale of 1-10, how satisfied you would be with the service given to you at the shop once FurnIT is used? (1- not satisfied, 10 - very satisfied)	Now, let's think about your client. At present, how satisfied do you think your client is with the service given at the shop? (1- not satisfied, 10 - very satisfied)	How likely is it that your clients' satisfaction will improve thanks to using FurnIT?
1	3	8	Somewhat likely	9	9	Somewhat likely
2	3	8	Neutral	9	8	Somewhat likely
3	4	4	Somewhat likely	9	7	Very likely
4	3	5	Somewhat likely	5	3	Somewhat likely
5	4	2	Somewhat unlikely	10	10	Somewhat likely
6	4	7	Very likely	9	8	Very likely
7	5	8	Very likely	9	10	Somewhat likely
8	3	7	Neutral	7	5	Neutral
9	5	8	Neutral	8	7	Somewhat likely
10	5	9	Very likely	9	9	Very likely
11	4	7	Neutral	6	6	Somewhat likely
12	4	6	Neutral	6	6	Neutral
13	3	4	Somewhat likely	6	5	Somewhat likely
14	4	7	Somewhat likely	5	5	Somewhat likely
15	4	9	Somewhat likely	8	8	Somewhat likely
16	5	9	Somewhat likely	9	9	Somewhat likely
17	2	6	Neutral	5	5	Neutral
18	3	7	Somewhat likely	8	7	Somewhat likely
19	5	9	Very likely	9	10	Somewhat likely
20	3	6	Somewhat likely	7	6	Somewhat likely

	36	37	38	39	40	41
	Please estimate on a scale of 1-10, how satisfied your client will be with the service given to you at the shop once FurnIT is used? (1- not satisfied, 10 - very satisfied)	Please estimate on a scale of 1-10, how likely are you in the present to shop again at this store? (1- highly unlikely, 10 - very likely)	How likely is it that this number improves using FurnIT in the store?	Please estimate on a scale of 1-10, how likely are you to shop here again once FurnIT is used regularly in the store? (1- highly unlikely, 10 - very likely)	In the past 2 years, have you had to return any furniture items you've purchased? (for example, in cases the product did not match your client's	Please estimate the percentage of furniture and design products you had to return.
1	9	8	Somewhat likely	9	No, I haven't	I did not have to return any products
2	9	8	Somewhat likely	9	No, I haven't	I did not have to return any products
3	7	3	Neutral	6	No, I haven't	Less than 10%
4	5	4	Somewhat likely	5	No, I haven't	I did not have to return any products
5	9	9	Somewhat likely	2	No, I haven't	I did not have to return any products
6	10	9	Very likely	9	Yes, I have	10-20%
7	7	8	Somewhat likely	8	Yes, I have	21-30%
8	5	6	Neutral	6	No, I haven't	I did not have to return any products
9	6	8	Somewhat likely	8	No, I haven't	I did not have to return any products
10	9	9	Very likely	9	I prefer not to answer.	I did not have to return any products
11	8	8	Somewhat likely	8	No, I haven't	I did not have to return any products
12	7	7	Neutral	6	I haven't bought any furnitu	I did not have to return any products
13	8	5	Somewhat likely	8	No, I haven't	I did not have to return any products
14	6	8	Very likely	8	No, I haven't	Less than 10%
15	8	7	Somewhat likely	7	No, I haven't	I did not have to return any products
16	9	9	Somewhat likely	9	I prefer not to answer.	I did not have to return any products
17	5	5	Neutral	5	No, I haven't	I did not have to return any products
18	7	8	Somewhat unlikely	8	No, I haven't	I did not have to return any products
19	10	9	Very likely	9	No, I haven't	I did not have to return any products
20	7	6	Somewhat likely	7	No, I haven't	Less than 10%

	42	43	44	45	46	47
	"Using FurnIT it is more likely than my clients are happy with the furniture and decoration items delivered and are less likely to return them." To which degree do you agree or disagree with this statement?	Please estimate the percentage of furniture and design products you will have to return once FurnIT is used.	How many items do you normally purchase when shopping here? - please consider furniture and design accessories (such as decoration items, textiles, etc).	How likely is it that using FurnIT you would purchase more items? - for example, try to imagine how likely you are to purchase not only a sofa for your client, but also a coffee table, curtains and cushions that match the space.	How many items do you think you would purchase here once FurnIT is used? - please consider furniture and design accessories (such as decoration items, textiles, etc).	"FurnIT will help me shorten the time I currently spend when shopping for furniture and design accessories for my clients and when trying to get my clients' approval prior to placing an order". To which degree do you agree or disagree with this statement?
1	Neutral	No products will be returned	1-5 items	Somewhat likely	1-5 items	Disagree
2	Neutral	No products will be returned	1-5 items	Neutral	1-5 items	Disagree
3	Agree	Less than 10%	1-5 items	Neutral	1-5 items	Strongly agree
4	Neutral	No products will be returned	None	Neutral	11-20 items	Neutral
5	Agree	No products will be returned	1-5 items	Very likely	6-10 items	Strongly agree
6	Agree	Less than 10%	None	Somewhat likely	1-5 items	Agree
7	Neutral	10-20%	6-10 items	Neutral	1-5 items	Agree
8	Neutral	No products will be returned	1-5 items	Somewhat unlikely	1-5 items	Agree
9	Agree	10-20%	1-5 items	Somewhat likely	1-5 items	Neutral
10	Neutral	No products will be returned	None	Neutral	None	Neutral
11	Disagree	10-20%	1-5 items	Somewhat likely	1-5 items	Disagree
12	Neutral	No products will be returned	6-10 items	Neutral	1-5 items	Neutral
13	Agree	Less than 10%	None	Somewhat likely	1-5 items	Strongly agree
14	Agree	Less than 10%	1-5 items	Somewhat likely	1-5 items	Agree
15	Disagree	No products will be returned	1-5 items	Neutral	1-5 items	Disagree
16	Disagree	No products will be returned	1-5 items	Somewhat likely	1-5 items	Neutral
17	Neutral	10-20%	1-5 items	Neutral	1-5 items	Neutral
18	Neutral	Less than 10%	1-5 items	Somewhat unlikely	None	Disagree
19	Disagree	No products will be returned	6-10 items	Somewhat likely	6-10 items	Disagree
20	Neutral	Less than 10%	1-5 items	Somewhat likely	None	Neutral

	48	49	50
	Please estimate how much of the time you currently spend in the shopping and order process you will save thanks to FurnIT?	Add any comment and/or suggestion if you have it, please...	What is your general opinion of the FurnIT platform?
1	Less than 10%	/	Very interesting
2	Less than 10%	/	Very interesting
3	10-20%		Very interesting
4	21-30%	-	Interesting
5	41-50%		Very interesting
6	More than 50%		Very interesting
7	Less than 10%		Very interesting
8	10-20%	Too long feedback. It is not very clear who should take it (designer or costumer). Application FurnIT has potential but needs some improvement.	Interesting
9	Less than 10%		Interesting
10	Less than 10%		Interesting
11	10-20%		Interesting
12	Less than 10%		Interesting
13	21-30%		Interesting
14	10-20%		Very interesting
15	10-20%		Interesting
16	Less than 10%		Interesting
17	Less than 10%	The success of this platform is depended on the variety of items, their quality and the functioning of the platform. Now, the later is not user friendly. There is lots of invisible text - due to the unfortunate choice of background colour...	Interesting
18	None.		Interesting
19	Less than 10%		Interesting
20	Less than 10%	/	Very interesting

Scenario 4

	1	2	3	4	5	6	7
	Gender	Age	Occupation	City	Country	Which devices do you have	How many times do you connect to Internet?
1	Female	45	/	Ljutomer	Slovenia	PC / Laptop	Several times a day
2	Male	24	Design student	Ljubljana	Slovenia	PC / Laptop	Several times a day
3	Female	24	Graphic Designer	Ljubljana	Slovenia	PC / Laptop	Several times a day
4	Female	37	/	Grosuplje	Slovenia	Smartphone, PC / Laptop, Tablet	Several times a day
5	Male	26	designer	Ptuj	Slovenija	PC / Laptop	Several times a day
6	Female	30	interior designer, garden des	Ljubljana	Slovenia	Smartphone, PC / Laptop	Several times a day
7	Male	45	/	Nova Gorica	Slovenia	PC / Laptop	Once a day
8	Male	27	Architect/designer	Ljubljana	Slovenia	Smartphone, PC / Laptop	Several times a day
9	Male	31	design student	Maribor	Slovenia	PC / Laptop	Several times a day
10	Female	25	Student - designer	Celje	Slovenia	PC / Laptop	Several times a day
11	Female	42	Architect	Ljubljana	Slovenia	PC / Laptop	Several times a day
12	Female	27	Grapich designer	Ljubljana	Slovenia	PC / Laptop	Several times a day
13	Female	23	Student	Ljubljana	Slovenia	PC / Laptop, Tablet	Several times a day
14	Female	25	student	Ljubljana	Slovenia	PC / Laptop, Tablet	Once a day
15	Female	28	Teacher	Ljubljana	Slovenia	PC / Laptop, Tablet	Once a day
16	Female	30	Interior designer	Ljubljana	Slovenia	PC / Laptop, Tablet	Once a day
17	Male	40	Architect	Ljubljana	Slovenia	PC / Laptop, Tablet	Once a day
18	Male	40	teacher	Ljubljana	Slovenia	PC / Laptop, Tablet	Once a day
19	Male	40	Designer	Ljubljana	Slovenia	PC / Laptop, Tablet	Once a day
20	Male	29	interior designer	Ljubljana	Slovenia	PC / Laptop	Once a day
21	Female	28	architect	Ljubljana	slovenija	Smartphone, PC / Laptop	Several times a day

	8	9	10	11	12	13
	When was the last time that you bought products and/or services using Internet?	How often do you buy furniture or decoration accessories?	Concerning your furniture or decoration accessories purchases, which percentage of them are done on-line?	Last time you bought furniture, did you use the Internet to look for furniture?	Last time you bought furniture, where was it?	How do you prefer buying furniture?
1	One month ago or less	Rarely, when I need it	0% to 25%	Yes	Shop	See and buy the product in store
2	One month ago or less	Rarely, when I need it	0% to 25%	Yes	Shop	See the product online and then buy in store
3	One month ago or less	Rarely, when I need it	0% to 25%	Yes	Shop	See the product online and then buy in store
4	One month ago or less	Rarely, when I need it	0% to 25%	Yes	Shop	See the product online and then buy in store
5	One month ago or less	Rarely, when I need it	0% to 25%	Yes	Shop	See the product in store and then buy it online
6	One month ago or less	Once per season	0% to 25%	Yes	Shop	See the product online and then buy in store
7	Between 6 and 1 month ago	Rarely, when I need it	0% to 25%	No	Shop	See and buy the product in store
8	One month ago or less	Once per season	0% to 25%	Yes	Shop	See the product online and then buy in store
9	Between 6 and 1 month ago	Rarely, when I need it	0% to 25%	Yes	Shop	See the product online and then buy in store
10	One month ago or less	Rarely, when I need it	0% to 25%	Yes	Shop	See the product online and then buy in store
11	More than one year ago	Rarely, when I need it	0% to 25%	Yes	Shop	See the product online and then buy in store
12	Between 6 and 1 month ago	Once per season	0% to 25%	Yes	Shop	See the product online and then buy in store
13	Between 6 and 1 month ago	Once a year	0% to 25%	Yes	Shop	See the product online and then buy in store
14	More than one year ago	Once a year	0% to 25%	No	Shop	See the product online and then buy in store
15	Between 6 and 1 month ago	Once per season	0% to 25%	Yes	Shop	See the product online and then buy in store
16	Between 6 and 1 month ago	Once per season	0% to 25%	Yes	Shop	See the product online and then buy in store
17	Between 6 and 1 month ago	Once a year	0% to 25%	No	Shop	See the product online and then buy in store
18	More than one year ago	Rarely, when I need it	0% to 25%	No	Shop	See the product online and then buy in store
19	More than one year ago	Once a year	0% to 25%	No	Shop	See the product online and then buy in store
20	Between 6 and 1 month ago	Once per season	0% to 25%	No	Shop	See the product online and then buy in store
21	One month ago or less	Rarely, when I need it	0% to 25%	Yes	Shop	See the product online and then buy in store

14		15
In case you need to buy furniture, would you use Internet before going to the shop?		Which of the following features are useful for you?
1	Maybe	Define the room layout using a mobile device app, Define the room layout in a PC environment, Visualising furniture using the Virtual Reality Environment, Visualising furniture using the Augmented Reality Environment
2	Yes, for sure	Define the room layout in a PC environment, Visualising furniture using the Virtual Reality Environment, Visualising furniture using the Augmented Reality Environment
3	Yes, for sure	Define the room layout in a PC environment, Visualising furniture using the Virtual Reality Environment, Visualising furniture using the Augmented Reality Environment
4	Yes, I think so	Visualising furniture using the Augmented Reality Environment
5	Yes, for sure	Define the room layout using a mobile device app, Define the room layout in a PC environment, Visualising furniture using the Virtual Reality Environment, Visualising furniture using the Augmented Reality Environment, Using the recommender
6	Yes, for sure	Define the room layout using a mobile device app, Define the room layout in a PC environment, Visualising furniture using the Virtual Reality Environment, Visualising furniture using the Augmented Reality Environment, Using the recommender
7	Maybe	Visualising furniture using the Virtual Reality Environment, Using the recommender
8	Yes, for sure	Define the room layout in a PC environment
9	Yes, I think so	Visualising furniture using the Virtual Reality Environment
10	Yes, I think so	Visualising furniture using the Augmented Reality Environment
11	Yes, I think so	Visualising furniture using the Augmented Reality Environment
12	Yes, I think so	Visualising furniture using the Augmented Reality Environment
13	Yes, I think so	Visualising furniture using the Virtual Reality Environment, Visualising furniture using the Augmented Reality Environment
14	Yes, I think so	Define the room layout in a PC environment, Visualising furniture using the Virtual Reality Environment, Visualising furniture using the Augmented Reality Environment
15	Yes, I think so	Visualising furniture using the Virtual Reality Environment, Visualising furniture using the Augmented Reality Environment
16	Yes, I think so	Visualising furniture using the Virtual Reality Environment, Visualising furniture using the Augmented Reality Environment
17	Yes, I think so	Visualising furniture using the Virtual Reality Environment, Visualising furniture using the Augmented Reality Environment
18	Yes, I think so	Visualising furniture using the Virtual Reality Environment, Visualising furniture using the Augmented Reality Environment
19	Maybe	Define the room layout in a PC environment, Visualising furniture using the Augmented Reality Environment
20	Yes, I think so	Visualising furniture using the Virtual Reality Environment, Visualising furniture using the Augmented Reality Environment
21	Yes, for sure	Define the room layout in a PC environment

16	17	18
Do you consider important visualizing the furniture in the Virtual Reality Environment for your purchasing process?	Do you consider important visualizing the furniture in the Augmented Reality Environment for your purchasing process?	What is the best of the FurnIT?
1	Important	visualization of furniture in real living space
2	Essential	Virtual/augmented reality
3	Important	It's great that the drag and drop system is easy to use and that I am able to visualise everything.
4	Important	/
5	Important	flexibility
6	Important	Visualizing furniture in augmented reality
7	Important	Visualising furniture using the Augmented Reality Environment
8	No	/
9	Important	visualizing furniture
10	Important	flexibility
11	Important	AR technology
12	Important	Visualizing furniture
13	Important	3D visualizing in real space
14	Important	visualization
15	Important	3D view
16	Important	visualizing furniture in real living space
17	Important	easy use
18	Important	3 D view
19	Important	flexibility
20	Important	AR technology
21	So so	Maybe useful for people who are not professionals in fields of design, architecture, etc.

	19	20	21	22
	What is the worst of the FurnIT?	How positive are these aspects of the FurnIT platform for you? [Visualizing lots of furniture combinations]	How positive are these aspects of the FurnIT platform for you? [Useful recommendator that helps to take decisions]	How positive are these aspects of the FurnIT platform for you? [Saving different furniture combinations in my personal area]
1	/	(+++)	(++)	(+++)
2	Limited product palette	(++)	(+)	(++)
3	The interface is not very intuitive. It's not clear what you are supposed to do and there aren't a lot of instructions. I haven't found the delete item button anywhere, nor did I figure out how to put things on the walls or hang lamps on the ceiling.	(+++)	(++)	(+)
4	/	(++)	(++)	(+++)
5	lack of furniture	(+++)	(+++)	(+++)
6	Needing the special googles for virtual reality visualisation	(+++)	(+)	(++)
7	Recommendor is unresponsive or poorly responsive	(++)	(+++)	(++)
8	Extremely un-intuitive interface.	(+)	()	()
9	lack of product	(+++)	(++)	(+++)
10	recommendor is some time unresponsive	(+++)	(+)	(++)
11	unattractive surface	(+)	(+)	(+)
12	lack of models of furniture, accessories,	(+)	(+)	(++)
13	lack of product palette	(+)	(++)	(++)
14	I have missed delete buton	(++)	(+)	(++)
15	/	(+++)	(++)	(+)
16	/	(+++)	(++)	(+)
17	lack of accessories	(++)	(+++)	(++)
18	/	(+)	(++)	(++)
19	/	(++)	(+)	(++)
20	/	(+)	(+)	(+)
21	As an architect i prefer other options for planing and visualising my designs - even the simple ones like Google Sketchup - which is extremely easy and intuitive to use and therefore very suitable also for non-professionals.	()	()	()

	23	24	25	26	27	28	29
	How negative are these aspects of the FurnIT platform for you? [Too Complex]	How negative are these aspects of the FurnIT platform for you? [Too many steps]	How negative are these aspects of the FurnIT platform for you? [Not much furniture pieces]	Would you use the FurnIT platform in the future?	Would you recommend the FurnIT platform?	On a scale of 1-5, how satisfied are you with the platform content organisation? (1- not satisfied, 5- very satisfied)	On a scale of 1-5, how intuitive is the FurnIT platform content organisation? (1- not intuitive, 5- very intuitive)
1	()	(-)	(-)	Yes, I think so	Yes, I think so	4	4
2	(-)	(-)	(--)	Yes, for sure	Yes, for sure	2	3
3	(--)	(-)	()	Yes, I think so	Yes, for sure	3	2
4	()	()	(-)	Yes, I think so	Yes, I think so	4	4
5	(-)	(-)	(--)	Yes, for sure	Yes, for sure	3	3
6	()	()	(-)	Yes, I think so	Yes, for sure	3	4
7	(-)	()	(-)	Maybe	Yes, I think so	4	4
8	(--)	(--)	()	No	No	1	1
9	()	(-)	(-)	Yes, I think so	Yes, I think so	4	4
10	(-)	()	(-)	Yes, I think so	Yes, I think so	4	3
11	(-)	(-)	(-)	Yes, I think so	Yes, I think so	4	4
12	(-)	(-)	(-)	Yes, I think so	Yes, I think so	4	3
13	(-)	(-)	(-)	Yes, I think so	Yes, I think so	4	4
14	()	(-)	(-)	Yes, I think so	Yes, I think so	4	4
15	(-)	(-)	(-)	Yes, I think so	Yes, I think so	3	3
16	(--)	(--)	(--)	Yes, I think so	Yes, I think so	4	4
17	()	(-)	(-)	Yes, I think so	Yes, I think so	3	4
18	()	()	(-)	Yes, I think so	Yes, I think so	4	3
19	(-)	(-)	(-)	Maybe	Yes, I think so	3	3
20	(-)	(-)	(-)	Yes, I think so	Yes, I think so	3	4
21	()	()	()	No	No	2	2

	30	31	32	33	34	35
	On a scale of 1-5, assess your user experience (1 - very bad, 5 - very good)	On a scale of 1-10, how satisfied are you with the service given to you at the shop? (1- not satisfied, 10 - very satisfied)	How likely is it that your satisfaction will improve thanks to using FurnIT?	Please estimate on a scale of 1-10, how satisfied you would be with the service given to you at the shop once FurnIT is used? (1- not satisfied, 10 - very satisfied)	Now, let's think about your client. At present, how satisfied do you think your client is with the service given at the shop? (1- not satisfied, 10 - very satisfied)	How likely is it that your clients' satisfaction will improve thanks to using FurnIT?
1	3	8	Somewhat likely	9	8	Somewhat likely
2	4	7	Somewhat likely	8	7	Very likely
3	2	5	Neutral	10	5	Very likely
4	3	8	Neutral	9	9	Somewhat likely
5	3	9	Somewhat likely	9	9	Somewhat likely
6	4	5	Somewhat likely	6	6	Somewhat likely
7	3	8	Somewhat likely	9	9	Somewhat likely
8	1	5	Very unlikely	5	5	Somewhat unlikely
9	4	8	Somewhat likely	8	8	Somewhat likely
10	4	8	Somewhat likely	8		Somewhat likely
11	4	8	Somewhat likely	8	8	Somewhat likely
12	3	8	Somewhat likely	9		Somewhat likely
13	4	8	Somewhat likely	8	9	Somewhat likely
14	3	8	Somewhat likely	9	8	Somewhat likely
15	3	5	Somewhat likely	6	5	Somewhat likely
16	4	7	Somewhat likely	8	7	Somewhat likely
17	4	6	Somewhat likely	7	6	Somewhat likely
18	3	6	Somewhat likely	7	6	Somewhat likely
19	3	7	Somewhat likely	7	7	Neutral
20	3	6	Somewhat likely	7	6	Somewhat likely
21	2	5	Neutral	5	5	Neutral

	36	37	38	39	40
	Please estimate on a scale of 1-10, how satisfied your client will be with the service given to you at the shop once FurnIT is used? (1- not satisfied, 10 - very satisfied)	Please estimate on a scale of 1-10, how likely are you in the present to shop again at this store? (1- highly unlikely, 10 - very likely)	How likely is it that this number improves using FurnIT in the store?	Please estimate on a scale of 1-10, how likely are you to shop here again once FurnIT is used regularly in the store? (1- highly unlikely, 10 - very likely)	In the past 2 years, have you had to return any furniture items you've purchased? (for example, in cases the product did not match your client's expectations, the product was delivered damaged, etc).
1	9	9	Somewhat likely	9	No, I haven't
2	8	7	Very likely	8	No, I haven't
3	5	6	Somewhat likely	8	I haven't bought any furniture recently
4	9	8	Somewhat likely	8	I haven't bought any furniture recently
5	9	9	Somewhat likely	9	I prefer not to answer.
6	6	7	Somewhat likely	5	No, I haven't
7	9	8	Somewhat likely	9	I haven't bought any furniture recently
8	5	5	Very unlikely	1	No, I haven't
9	8	8	Somewhat likely	8	No, I haven't
10	8	8	Somewhat likely	8	No, I haven't
11	9	9	Somewhat likely	9	No, I haven't
12	8	8	Somewhat likely	9	I haven't bought any furniture recently
13	9	8	Somewhat likely	9	No, I haven't
14	9	8	Somewhat likely	9	No, I haven't
15	6	6	Somewhat likely	7	I haven't bought any furniture recently
16	8	6	Somewhat likely	7	No, I haven't
17	7	7	Somewhat likely	8	No, I haven't
18	7	6	Somewhat likely	7	I prefer not to answer.
19	8	7	Neutral	8	No, I haven't
20	7	6	Somewhat likely	7	No, I haven't
21	5	5	Neutral	5	I haven't bought any furniture recently

	41	42	43	44	45	46
	Please estimate the percentage of furniture and design products you had to return.	"Using FurnIT it is more likely than my clients are happy with the furniture and decoration items delivered and are less likely to return them." To which degree do you agree or disagree with this statement?	Please estimate the percentage of furniture and design products you will have to return once FurnIT is used.	How many items do you normally purchase when shopping here? - please consider furniture and design accessories (such as decoration items, textiles, etc).	How likely is it that using FurnIT you would purchase more items? - for example, try to imagine how likely you are to purchase not only a sofa for your client, but also a coffee table.	How many items do you think you would purchase here once FurnIT is used? - please consider furniture and design accessories (such as decoration items, textiles, etc).
1	I did not have to return any products	Neutral	No products will be returned	1-5 items	Somewhat likely	1-5 items
2	Less than 10%	Agree	Less than 10%	None	Somewhat likely	1-5 items
3	I did not have to return any products	Agree	Less than 10%	None	Somewhat likely	1-5 items
4	I did not have to return any products	Neutral	No products will be returned	1-5 items	Neutral	1-5 items
5	I did not have to return any products	Neutral	10-20%	None	Neutral	1-5 items
6	I did not have to return any products	Agree	Less than 10%	1-5 items	Very likely	1-5 items
7	I did not have to return any products	Disagree	No products will be returned	1-5 items	Neutral	1-5 items
8	I did not have to return any products	Disagree	No products will be returned	None	Somewhat unlikely	None
9	I did not have to return any products	Neutral	Less than 10%	1-5 items	Somewhat likely	1-5 items
10	I did not have to return any products	Neutral	No products will be returned	1-5 items	Somewhat likely	1-5 items
11	I did not have to return any products	Neutral	No products will be returned	1-5 items	Somewhat likely	1-5 items
12	Less than 10%	Neutral	Less than 10%	1-5 items	Somewhat likely	1-5 items
13	I did not have to return any products	Neutral	No products will be returned	1-5 items	Somewhat likely	1-5 items
14	I did not have to return any products	Neutral	No products will be returned	1-5 items	Somewhat likely	1-5 items
15	I did not have to return any products	Neutral	No products will be returned	1-5 items	Somewhat likely	1-5 items
16	I did not have to return any products	Neutral	Less than 10%	1-5 items	Somewhat likely	1-5 items
17	I did not have to return any products	Neutral	Less than 10%	1-5 items	Somewhat likely	1-5 items
18	Less than 10%	Neutral	Less than 10%	None	Somewhat likely	None
19	Less than 10%	Neutral	Less than 10%	1-5 items	Somewhat likely	1-5 items
20	I did not have to return any products	Neutral	Less than 10%	None	Somewhat likely	None
21	I did not have to return any products	Neutral	No products will be returned	None	Neutral	None

	47	48	49	50
	"FurnIT will help me shorten the time I currently spend when shopping for furniture and design accessories for my clients and when trying to get my clients' approval prior to placing an order". To which degree do you agree or disagree with this statement?	Please estimate how much of the time you currently spend in the shopping and order process you will save thanks to FurnIT?	What is your general opinion of the FurnIT platform?	Add any comment and/or suggestion if you have it, please...
1	Disagree	Less than 10%	Very interesting	/
2	Agree	Less than 10%	Very interesting	Not only saving time, it's checking suitability of furniture for one's space and marketing of the included brands that's even more interesting.
3	Agree	10-20%	Very interesting	I think the idea is brilliant, but as mentioned before there are quite a few things that are still confusing for the user.
4	Neutral	Less than 10%	Very interesting	/
5	Agree	None.	Very interesting	/
6	Agree	21-30%	Very interesting	/
7	Disagree	Less than 10%	Very interesting	/
8	Strongly disagree	None.	Not interesting at all	I hope i'm not offending you by expressing my strongly negative opinion on the platform. I tried using the interface and gave up after 10 minutes due to very complex and not at all logical interface. After that i wanted to give and opinion/suggestions about it and complete this survey, but it again took me a lot more time to get to the end than i would like it to be. I believe both the platform and the survey are too demanding on the user (or his time), so the platform will rarely be used by professionals. Even though 3D programs are a must these days, you are competing with software like Sketchup, which is extremely user-friendly. Some top notch furniture companies make 3D models of their furniture that can be freely downloaded (via their website or Sketchup's 3D Warehouse) and used in any 3D program the user likes (Sketchup, 3DSMax etc.). Rather than making another 3D program (that just cannot compete with others) i suggest to take similar approach and use existing software and focus on the models of furniture and accessories.
9	Neutral	None.	Interesting	/
10	Disagree	Less than 10%	Interesting	/
11	Neutral	None.	Interesting	/
12	Neutral	Less than 10%	Interesting	/
13	Neutral	None.	Interesting	/
14	Neutral	None.	Interesting	/
15	Disagree	None.	Interesting	/
16	Neutral	None.	Very interesting	/
17	Disagree	Less than 10%	Very interesting	/
18	Neutral	None.	Very interesting	/
19	Neutral	Less than 10%	Very interesting	/
20	Neutral	Less than 10%	Very interesting	/
21	Neutral	None.	Not much interesting	I would prefer if you built on existing successful platforms - like Sketchup - with adding plugins to implement your features the outcome could be very successful.

Scenario 5

	1	2	3	4	5	6	7	8
	Gender	Age	Years of experience in the furniture sector	City	Country	Company Name	Number of sales centres	Does the company belong to a business group?
1	Male	44	19	Železniki	Slovenia	Alpes	150	No
2	Male	49	25	Ljutomer	Slovenia	Murales	50	No
3	Male	42	14	Nova Gorica	Slovenia	Gonzaga-pro	2	No
4	Male	43	18	Ljubljana	Slovenia	IB-CADDY, d.o.o.	1	No
5	Male	40	14	Ljubljana	Slovenia	Donar, d.o.o.	1	No
6	Male	50	25	Ljubljana	Slovenia	Klun ambienti, d.o.o.	6	No
7	Female	42	15	Kamnik	Slovenia	Lina Design	2	No
8	Male	47	30	Ljubljana	Slovenia	Mlinar&Mlinar	2	No
9	Male	46	20	Ljubljana	Slovenia	Salco pohištvo	2	No
10	Male	51	25	Ljubljana	Slovenia	Žakelj, d.o.o.	8	No
11	Female	38	10	Medvode	Slovenia	Hit Preless, d.o.o.	1	No
12	Male	33	7	Medvode	Slovenia	Akron	20	No
13	Male	55	30	Kamnik	Slovenia	Kavčič, d.o.o.	1	No
14	Male	49	25	Nova Gorica	Slovenia	Lesimpex	1	No
15	Male	55	30	Luče	Slovenia	Melu	1	No
16	Female	50	20	Kozina	Slovenia	Mizarstvo Bolčič	1	No
17	Male	49	25	Grosuplje	Slovenia	MZG	1	No
18	Male	48	23	Ljubljana	Slovenia	Mizarstvo Dermastja	1	No
19	Male	51	30	Podgorje	Slovenia	Podgorje	1	No
20	Male	58	35	Ljubljana	Slovenia	Tapetništvo Novak	1	No
21	Female	41	2	Girona	Spain	silleria verges	1	No
22	Female	25	3	La Sènia	Spain	Mobenja	1	No
23	Male	38	16	La Sènia	Spain	Bustper	1	No
24	Male	53	30	La Sènia	Spain	Madersenia	1	No
25	Male	40	20	La Sènia	Spain	MD Mobles	1	No
26	Male	36	17	La Sènia	Spain	Tobisa	1	No

	9	10	11	12	13
	If so, which business group	Does the company sell furniture on-line?	Which ecommerce platform does your company use?	Which are your current sales channels?	Does the company create 3D models for its products?
1	-	Yes	I use my own website/app	retailer	Yes
2	-	No	I use my own website/app	salons, professional buyers	Sometimes
3	-	Yes	I use my own website/app	retailers, buyers,	Yes
4	/	No	I use my own website/app	web	Yes
5	/	Yes	I use my own website/app	buyers, retailers	Yes
6	/	No	I use my own website/app	retailers	Yes
7		Yes	I use my own website/app	retailers	Yes
8	/	No	I use my own website/app	web	Sometimes
9	/	Yes	I use my own website/app	retailers, buyers	Yes
10	/	No	I use my own website/app	buyers, retailers	Yes
11	/	No	I use my own website/app	buyers	Sometimes
12	/	Yes	I use my own website/app	retailers	Sometimes
13	/	Yes	I use my own website/app	buyers	Sometimes
14	/	Yes	I use my own website/app	buyers	Yes
15	/	No	I use my own website/app	buyers	Yes
16	/	No	I use my own website/app	buyers	Yes
17	/	No	I use my own website/app	Buyers	Sometimes
18	/	No	I use my own website/app	buyers	Sometimes
19	/	Yes	I use my own website/app	buyers, retailers	Yes
20	/	Yes	I use my own website/app	buyers, retailers	Sometimes
21		No	I use my own website/app	Retailers, professional buyers	Yes
22		Yes	None, we sell indirectly through	Retailers	Yes
23		No	None	B2B and contract channel specifier	Yes
24		No	None	Hotel owners and contract channel	Yes
25		No	None	Retailers	Yes
26		No	None	Retailers	Yes

14	15
Do you think that the FurnIT Platform would help you in the sales process?	Why?
1 Yes, I think so	spread our offer, when other retailer will use this platform
2 Yes, for sure	New web technology, buyers could accomodate by own
3 Yes, I think so	buyer gets a better perspective
4 Yes, I think so	new web technology
5 Yes, I think so	/
6 Yes, I think so	/
7 Yes, I think so	new web technology
8 Yes, I think so	customer can get better insight
9 Yes, I think so	it is a very good accessory
10 Yes, I think so	good technology
11 Maybe	/
12 Yes, I think so	new technology
13 Yes, I think so	good device for drawing
14 Yes, I think so	good drawing tool
15 Yes, I think so	new online technology
16 Yes, I think so	spread our offer
17 Yes, I think so	good drawing tool
18 Yes, I think so	good drawing accessory
19 Yes, I think so	good drawing accessory
20 Maybe	/
21 Yes, for sure	The possibiility to change fabrics and textures
22 Maybe	If the salesperson who works in furniture shops like the platform, they will probably advice the furniture models of the manufacturers that have their furniture pieces on it.
23 Maybe	Integrating these tools in our web-site, we can strengthen exclusive models
24 Yes, I think so	The project visualisation in real time. It is a selling tool, mainly with hotel owners
25 Yes, I think so	The customer can see how the furniture looks at home
26 Yes, for sure	The furniture visualisation

16	17
Do you think that the FurnIT Platform would help your retailers (stores) in the sales process?	Why?
1 Maybe	depending on retailers
2 Yes, for sure	Possibility to create own online catalogues, available over web to all retailers in the same time.
3 Yes, I think so	buyer gets a better perspective
4 Yes, I think so	/
5 Maybe	spread our offer
6 Yes, I think so	/
7 Yes, I think so	/
8 Yes, I think so	better 3D view
9 Maybe	/
10 Yes, I think so	/
11 Yes, I think so	/
12 Yes, I think so	good 3d view
13 Yes, I think so	/
14 Yes, I think so	good drawing tool
15 Yes, I think so	/
16 Yes, I think so	It is a good drawing tool
17 Yes, I think so	/
18 Yes, I think so	/
19 Maybe	/
20 Yes, I think so	good drawing technology
21 Yes, for sure	Make easier the client the final product visualisation
22 Yes, I think so	Make easier the work of salespersons in the furniture shops. These shops could offer an added value to the clients thanks to the possibility of visualising in augmented reality the furniture at home. On the other hand, if our furniture are in these platforms and they are selected by the final client or by the salespersons, we will benefit on that
23 Maybe	Could see the models "in situ" of their projects
24 Yes, for sure	Visualización muy rápida de lo que se puede ofrecer
25 Yes, I think so	El cliente puede ver cómo quedarían los muebles en su casa
26 Yes, for sure	Give the final client (purchaser) a support to see the furniture at home

18	19
Would you recommend the FurnIT platform to your clients/retail channel (stores)?	Why?
1 Yes, I think so	better 3d view
2 Yes, for sure	Possibility to use AR in own room.
3 Yes, for sure	it is a good accessory
4 Yes, I think so	/
5 Yes, I think so	/
6 Maybe	/
7 Yes, I think so	good accessory
8 Yes, I think so	good web technology
9 Yes, I think so	It is a good accessory
10 Yes, I think so	/
11 Yes, I think so	/
12 Yes, I think so	/
13 Maybe	/
14 Yes, I think so	/
15 Yes, I think so	good technology
16 Yes, I think so	/
17 Yes, I think so	/
18 Yes, I think so	/
19 Yes, I think so	good drawing accessory
20 Yes, I think so	good drawing technology
21 Yes, I think so	strengthen our trademark giving a good impression
22 Yes, I think so	It is a tool that could be very useful for final clients that have difficulties to imagine the furniture, with different measures and finishes, at home. Then, the platform generates trust and reliability because thanks to the augmented reality, the clients have already seen how look the furniture or complements where they want
23 Maybe	I would like to know the way to show and if it is suitable and give a good image for the company
24 Yes, I think so	For a first contact with the clients, with a real basis - mainly for visualisation aspects
25 Yes, I think so	Easy furniture visualisation
26 Yes, for sure	To make easier the visualisation at home

20	21
Would you use the FurnIT platform to sell directly to the final client (people who wants to buy furniture)?	Why?
1 Maybe	depend on country of customer
2 Yes, for sure	same as above question.
3 Maybe	-
4 Yes, I think so	/
5 Yes, I think so	/
6 Yes, I think so	/
7 Yes, I think so	good accessory
8 Yes, I think so	/
9 Yes, I think so	/
10 Yes, I think so	/
11 Yes, I think so	/
12 Yes, I think so	/
13 Yes, I think so	/
14 Yes, I think so	/
15 Yes, I think so	/
16 Yes, I think so	/
17 Yes, I think so	good accessory
18 Yes, I think so	possibility to use AR
19 Yes, I think so	client can get better view
20 Yes, I think so	/
21 Yes, for sure	The clients will see the project finished
22 Maybe	It could be used, but now our distribution network works in a different way
23 No	Because I don't have this distribution channel
24 Yes, for sure	Ease in all
25 Yes, I think so	Ease furniture visualisation
26 Yes, for sure	Our company don't want to sell directly (in our web-site) to the final client (domestic purchasers) to avoid conflicts with our retailers, but using a platform like FurnIT we will sell directly to the final client.

	22	23
	What is the best of the FurnIT platform?	What is the worst of the FurnIT platform?
1	online control of our offer	too narrow limits of groups (functions, colours, ...)
2	AR visualisation in own spaces.	-
3	it is a good accessory	-
4	AR visualisation	Slow
5	AR visualisation of living space	Slow
6	on line offer control	/
7	AR technology	sometimes to slow
8	AR technology	to small drawing space
9	AR technology, possibility to see furniture in your own living	/
10	AR technology, so the customer can see furniture in real living	/
11	client can see furniture in real living room	/
12	AR technology	slow
13	3D view in real space	small drawing space
14	3d view	lack of accessories (lamp, pictures)
15	AR technology	drawing space - other program have bigger drawing space
16	AR tehnologija	slow
17	3d view in real place	slow
18	Ar technology	low drawing area
19	AR tehnologija, online	to slow
20	3D view in real place	slow
21	I don't know, I haven't seen other platforms to compare	I don't know, I haven't seen other platforms to compare
22	The possibility of see the furniture in 3D through one device in a real space	there is possible to see one or 2 furniture pieces at the same time (depending on the screen size)
23	Use simplicity	There aren't lots of furniture models in the platform, yet
24	To integrate the furniture catalogue with the virtual and augmented reality and to be able to show the clients how look	It is a very good tool for a first contact with clients. Maybe, for big projects it is not useful...
25	Augmented Reality	To upload the furniture piece by piece instead of a massive upload. The furniture quality seems not to high
26	Easy to use	Once selected, the furniture has taken a lot of time to appear in the virtual room

	24	25	26	27
	What do you suggest to improve the FurnIT Platform?	What is you general opinion of the FurnIT platform?	Would you use the FurnIT platform in the future?	Would you recommend the FurnIT platform?
1	too narrow limits of groups (functions, colours, ...)	Interesting	Yes, I think so	Yes, I think so
2	improving searching options/menues - in manufactures and also users view.	Interesting	Yes, I think so	Yes, I think so
3	-	Very interesting	Yes, I think so	Yes, I think so
4	/	Interesting	Yes, I think so	Yes, I think so
5	/	Interesting	Yes, I think so	Yes, I think so
6	/	Interesting	Yes, I think so	Yes, I think so
7	/	Interesting	Yes, I think so	Yes, I think so
8	/	Interesting	Yes, I think so	Yes, I think so
9	/	Interesting	Yes, I think so	Yes, I think so
10	/	Interesting	Yes, I think so	Yes, I think so
11	/	Interesting	Yes, I think so	Yes, I think so
12	improving search option	Interesting	Yes, I think so	Yes, I think so
13	/	Interesting	Yes, I think so	Yes, I think so
14	/	Interesting	Yes, I think so	Yes, I think so
15	/	Interesting	Yes, I think so	Yes, I think so
16	/	Interesting	Yes, I think so	Yes, I think so
17	/	Interesting	Yes, I think so	Yes, I think so
18	/	Interesting	Yes, I think so	Yes, I think so
19	/	Interesting	Yes, I think so	Yes, I think so
20	/	Interesting	Yes, I think so	Yes, I think so
21	I don't know, I haven't seen other platforms to compare	Interesting	Maybe	Yes, I think so
22	To see the room with the 3D glasses	Interesting	Yes, I think so	Yes, I think so
23	Augmented reality trembling	Interesting	Maybe	Yes, I think so
24	Agile and fast platform, with a good product quality	Very interesting	Yes, I think so	Yes, I think so
25	Massive upload, improving the furnitur quality and firt upload the model and then assign the colors in the VR environment	Interesting	Yes, I think so	Yes, I think so
26	This kind of tools should work prefectly	Very interesting	Yes, for sure	Yes, for sure

	28	29	30	31	32
	On a scale of 1-5, how satisfied are you with the platform content organisation? (1- not satisfied, 5 - very satisfied)	On a scale of 1-5, how intuitive is the FurnIT platform content organisation? (1- not intuitive, 5- very intuitive)	On a scale of 1-5, assess your user experience (1 - very bad, 5 - very good)	"At present, product returns are a concern for my business." To which degree do you agree or disagree with this statement?	Please estimate: over the past 2 years, what percentage of the orders you've delivered to your clients was returned?
1	4	4	4	Agree	Less than 10%
2	4	4	4	Strongly disagree	Less than 10%
3	4	4	3	Disagree	Less than 10%
4	3	3	4	Disagree	None. My orders are never returned.
5	4	4	4	Neutral	Less than 10%
6	4	4	3	Neutral	Less than 10%
7	4	4	4	Disagree	Less than 10%
8	4	4	3	Neutral	Less than 10%
9	4	3	3	Disagree	Less than 10%
10	4	3	3	Disagree	Less than 10%
11	4	3	3	Disagree	Less than 10%
12	4	3	4	Disagree	Less than 10%
13	3	4	4	Disagree	Less than 10%
14	4	4	4	Disagree	
15	4	4	4	Disagree	Less than 10%
16	4	4	4	Disagree	Less than 10%
17	4	3	3	Neutral	Less than 10%
18	3	4	3	Disagree	Less than 10%
19	4	4	4	Neutral	
20	3	4	3	Disagree	None. My orders are never returned.
21	4	4	4	Agree	10-20%
22	4	5	4	Disagree	Less than 10%
23	4	3	4	Neutral	None. My orders are never returned.
24	4	4	4	Neutral	None. My orders are never returned.
25	2	2	2	Neutral	Less than 10%
26	4	4	4	Agree	Less than 10%

	33	34	35	36	37
	"Using FurnIT it is more likely than my clients are happy with the furniture and decoration items delivered and are less likely to return them."	Please estimate the percentage of your delivered orders that will be returned once FurnIT is used.	"FurnIT will allow me to attract orders of higher values." To which degree do you agree or disagree with this statement?	Please estimate the percentage of increase in order value that you would expect once FurnIT is used.	"The average time spent by myself or by my sales representative in closing an order is too long. This is a concern for my business." To which degree do you agree or disagree with this
1	Disagree	Less than 10%	Disagree	Less than 10%	Disagree
2	Disagree	None of my orders will be returned.	Disagree	I expect no change in order value.	Disagree
3	Neutral	Less than 10%	Neutral	I expect no change in order value.	Neutral
4	Neutral	Less than 10%	Neutral	Less than 10%	Disagree
5	Neutral	Less than 10%	Neutral	I expect no change in order value.	Neutral
6	Neutral	None of my orders will be returned.	Neutral	I expect no change in order value.	Neutral
7	Neutral	Less than 10%	Neutral	Less than 10%	Disagree
8	Neutral	Less than 10%	Neutral	Less than 10%	Neutral
9	Neutral	Less than 10%	Disagree	I expect no change in order value.	Neutral
10	Disagree	Less than 10%	Neutral	I expect no change in order value.	Disagree
11	Neutral	Less than 10%	Neutral	Less than 10%	Neutral
12	Disagree	Less than 10%	Neutral	Less than 10%	Neutral
13	Disagree	Less than 10%	Neutral	I expect no change in order value.	Disagree
14	Disagree	Less than 10%	Neutral	I expect no change in order value.	Disagree
15	Disagree	Less than 10%	Neutral	I expect no change in order value.	Disagree
16	Disagree	Less than 10%	Neutral	Less than 10%	Neutral
17	Disagree	Less than 10%	Neutral	I expect no change in order value.	Neutral
18	Neutral	Less than 10%	Disagree	I expect no change in order value.	Strongly disagree
19	Disagree	Less than 10%	Neutral	I expect no change in order value.	Neutral
20	Disagree	None of my orders will be returned.	Disagree	I expect no change in order value.	Neutral
21	Agree	Less than 10%	Neutral	I expect no change in order value.	Agree
22	Agree	Less than 10%	Disagree	I expect order value to decrease.	Agree
23	Neutral	None of my orders will be returned.	Neutral	I expect no change in order value.	Agree
24	Neutral	None of my orders will be returned.	Neutral	I expect no change in order value.	Strongly Agree
25	Neutral	Less than 10%	Agree	10-20%	Agree
26	Disagree	None of my orders will be returned.	Strongly disagree	I expect no change in order value.	Agree

	38	39	40	41
	"FurnIT will allow me to significantly shorten the time it takes me or my sales representative to close an order." To which degree do you agree or disagree with this statement?	Please estimate the percentage in which time-to-order may shorten once FurnIT is used.	"I believe that using FURNIT I will be able to significantly reduce my spendings on support material" To which degree do you agree or disagree with this statement?	Please consider the current costs of production and shipping of support material, such as catalogues. What percentage of these costs do you think you could save using FurnIT?
1	Disagree	Less than 10%	Disagree	I do not expect to save on support material.
2	Disagree	I expect no change in time-to-order.	Disagree	Less than 10%
3	Neutral	I expect no change in time-to-order.	Disagree	I do not expect to save on support material.
4	Disagree	Less than 10%	Disagree	I do not expect to save on support material.
5	Neutral	I expect no change in time-to-order.	Neutral	I do not expect to save on support material.
6	Neutral	I expect no change in time-to-order.	Neutral	I do not expect to save on support material.
7	Disagree	I expect no change in time-to-order.	Neutral	Less than 10%
8	Disagree	Less than 10%	Neutral	Less than 10%
9	Disagree	Less than 10%	Disagree	Less than 10%
10	Neutral	Less than 10%	Neutral	I do not expect to save on support material.
11	Neutral	Less than 10%	Neutral	Less than 10%
12	Neutral	Less than 10%	Disagree	I do not expect to save on support material.
13	Disagree	I expect no change in time-to-order.	Disagree	I do not expect to save on support material.
14	Disagree	Less than 10%	Disagree	I do not expect to save on support material.
15	Neutral	I expect no change in time-to-order.	Neutral	I do not expect to save on support material.
16	Neutral	I expect no change in time-to-order.	Disagree	I do not expect to save on support material.
17	Neutral	I expect no change in time-to-order.	Disagree	Less than 10%
18	Neutral	Less than 10%	Neutral	Less than 10%
19	Neutral	I expect no change in time-to-order.	Disagree	I do not expect to save on support material.
20	Neutral	I expect no change in time-to-order.	Neutral	Less than 10%
21	Neutral	I expect no change in timetoorder	Agree	10-20%
22	Agree	21-30%	Disagree	10-20%
23	Agree	Less than 10%	Neutral	Less than 10%
24	Strongly Agree	41-50%	Agree	I do not expect to save on support material.
25	Agree	31-40%	Strongly disagree	I do not expect to save on support material.
26	Agree	10-20%	Disagree	I do not expect to save on support material.

	42
	Add any comment and/or suggestion if you have it, please...
1	good luck
2	.
3	/
4	
5	/
6	/
7	/
8	/
9	/
10	/
11	/
12	/
13	/
14	/
15	/
16	/
17	/
18	/
19	/
20	/
21	
22	
23	We will see what happen with the platform, the number of manufacturers that will use it, and the adaptation to our business-model that do not use the furniture shop nor the domestic customers
24	There are some questions that do not apply with our profile (contract channel) because we develop custom-made projects with hotels
25	What we have already said previously
26	

Scenario 6

	1	2	3	4	5	6	7	8	9	10
	Gender	Age	Years of experience in the furniture sector	City	Country	Do you use the PC and/or tablet/iPAD as a support tool for your sales?	Company Name (optional)	Number of sales centres	Does the company belong to a business group?	If so, which business group (optional)
1	Female	35	17	La Sénia	España	Yes	Decorsenia	1	No	
2	Male	39	14	La Sénia	España	Yes	ezzo Interioris	1	No	
3	Female	58	15	La Sénia	España	Yes	Mobles Bustos	2	No	
4	Female	22	2	La Senia	España	Yes	Isabel Miró	3	No	
5	Female	41	15	La Sénia	España	Never	Oportunissimo	3	No	
6	Male	54	22	La Sénia	España	Never	Star Center	1	No	
7	Female	24	2	La Sénia	España	Never	Abstract	3	No	
8	Female	64	1	La Senia	España	Yes	Senia Mobel	1	No	
9	Male	50	25	La Sénia	España	Yes	Arvet	1	No	
10	Male	35	10	Železniki	Slovenija	Sometimes	Alpes	150	No	
11	Male	42	14	Nova Gorica	Slovenia	Yes	Gonzaga pro	2	No	
12	Female	45	20	Ljutomer	Slovenia	Yes	Murales	50	Yes	

	11	12	13	14	15
	Does the company sell furniture on-line?	Which ecommerce platform does your company use?	In your opinion, how many people look for furniture on the Internet before coming to the shop?	Do you think that the FurnIT Platform would help you in the sales process?	Why?
1	Yes	I use my own website/app, Facebook	51% to 75%	Yes, I think so	Es interesante visualizar el mueble en tu casa
2	Yes	I use my own website/app	76% to 100%	Yes, I think so	Cualquier herramienta que facilite la visualización y la rapidez es bienvenida
3	Yes	I use my own website/app	51% to 75%	Yes, I think so	Porque se pueden ver los muebles en la casa
4	Yes	I use my own website/app, Facebook, twitter,	51% to 75%	No	Porque tenemos herramientas más precisas que Furit
5	No	None	0% to 25%	No	Es una venta muy rápida y barata
6	No	None	26% to 50%	Yes, I think so	La gente joven busca este tipo de herramientas
7	Yes	I use my own website/app	51% to 75%	Yes, I think so	Es realmente útil y para ver si encaja con la decoración de casa
8	No	None	0% to 25%	Yes, for sure	Por la visualización en casa
9	Yes	I use my own website/app	51% to 75%	No	Faltaría desarrollarla
10	Yes	I use my own website/app	51% to 75%	Maybe	augmented reality
11	Yes	I use my own website/app	26% to 50%	Yes, for sure	Besause the customer gets better perspective
12	No	I use my own website/app	76% to 100%	Yes, I think so	Customer could see furniture in own environment before they taken decision ti buy.

	16	17	18	19
	Would you recommend the FurnIT platform to your clients?	Why?	Would you recommend the FurnIT platform to your providers?	Why?
1	Yes, I think so	Es interesante que los clientes puedan ver como quedan los muebles en su casa	Yes, I think so	Es un arma de venta
2	Yes, I think so	Por lo mismo de antes	Yes, I think so	Si los proveedores pñen sus productos a mi me servirá mejor
3	Yes, for sure	Porque se pueden ver los muebles en la casa	Yes, I think so	Porque se pueden ver los muebles en la casa
4	Yes, I think so	aYUDA A VISUALIZAR SU ENTORNO	Yes, I think so	Si el proveedor desarrolla sus modelos en 3D muchos de sus clientes los podrán visualizar, es una forma de llegar al cliente final
5	Yes, I think so	Te haces una idea de como te queda	No	Mis proveedores difícilmente tendran los muebles en el formato solicitado
6	Yes, I think so	La gente ve como le queda	Yes, I think so	Facilita todo
7	Yes, I think so	Es útil y pueden ver lo que quiren comprar en su casa y es más facil hacerse a la idea	Yes, I think so	Si no la plataforma no funciona
8	Yes, for sure	Ayudaría a evitar tomar medidas,	Yes, I think so	-
9	Yes, I think so	Es una ayuda visual	Yes, I think so	Cualquier herramienta que sea una posible mejora se debe tener en cuenta
10	Maybe	augmented reality	Maybe	augmented reality
11	Yes, for sure	because it is usefull	Yes, for sure	because it is usefull
12	Yes, I think so	That they can easily taken buying decision.	Yes, I think so	Easily to communicate between our company and their sales places. Also to easily attract buyers.

	20	21	22
	What is the best of the FurnIT platform?	What is the worst of the FurnIT platform?	What do you suggest to improve the FurnIT Platform?
1	La realidad aumentada	Tendría que tener muchos muebles y fabricantes	Tendría que tener muchos muebles y fabricantes, que pudieran verse los muebles abiertos y cerrados
2	La realidad aumentada	No lo se	Que estuvieran todos los fabricantes y que los muebles fueran más reales
3	Se ve el mueble virtual puesto en el lugar final con un simple papel	No he visto nada	Deberían estar todos los fabricantes
4	La facilidad de uso	La calidad del acabado de los muebles	Mejorar la calidad del acabado de los muebles
5	Ver como quedará el mueble en casa	Nada	Que el cliente tuviera un acceso rapido y gratuito
6	Que el cliente se vería klos muebles en su casa	Nada	No se me ocurre nada
7	La aaplicacion de realidad aumentada	-	Posibilidad de pintar las paredes
8	El entorno de realidad aumentada	Nada	Que se puedan pintar las paredes
9	La construcción del mapa de la habitación es muy intuitivo	La calidad de los muebles	Biblioteca exhaustiva de fabricantes, calidad de los renders
10	easy to use, AR	-	AR without markers
11	it is a great help at sales	-	-
12	VR and AR visualization	not so photorealistic as should be.	Possibility to accomodate in "blocks" depending on room size and shape - for example in restaurants, hotels...

	23	24	25	26	27	28	29
	Would you use the FurnIT platform in the future?	Would you recommend the FurnIT platform?	On a scale of 1-5, how satisfied are you with the platform content organisation? (1- not satisfied, 5 - very satisfied)	On a scale of 1-5, how intuitive is the FurnIT platform content organisation? (1- not intuitive, 5- very intuitive)	On a scale of 1-5, assess your user experience (1 - very bad, 5 - very good)	Of every 10 store visitors please estimate how many on average place an order?	How likely is it that this number improves using FurnIT in the store?
1	Yes, I think so	Yes, I think so	4	4	4	3	Neutral
2	Yes, I think so	Yes, I think so	4	4	4	1	Neutral
3	Yes, for sure	Yes, for sure	4	4	4	6	Somewhat likely
4	No	Yes, I think so	4	4	3	2	Somewhat likely
5	No	Yes, for sure	5	5	5	8	Very unlikely
6	Yes, I think so	Yes, I think so	3	3	3	4	Somewhat likely
7	Yes, I think so	Yes, I think so	5	5	5	4	Somewhat likely
8	Yes, for sure	Yes, for sure	4	4	3	3	Neutral
9	Yes, I think so	Yes, I think so	3	3	3	2	Neutral
10	Yes, for sure	Yes, I think so	4	4	4	4	Somewhat likely
11	Yes, for sure	Yes, for sure	5	5	5	5	Somewhat likely
12	Yes, I think so	Yes, I think so	5	4	3	8	Neutral

	30	31	32	33	34	35
	Please estimate, of every 10 store visitors, how many would place an order once FurnIT is used in the store?	Prior to this pilot, have you ever studied the level of client satisfaction?	What was the level of client satisfaction you found on a scale of 1-10? (1- not satisfied, 10 - very satisfied) if you did not study this before, please make an estimation.	How likely is it that this client satisfaction improves by using FurnIT in your shop?	On a scale of 1-10, how satisfied would your clients be once FurnIT is used?(1- not satisfied, 10 - very satisfied)	"At present, product returns are a concern for my business." To which degree do you agree or disagree with this statement?
1	3	Yes.	8	Somewhat likely	9	Disagree
2	1	No.	8	Neutral	8	Disagree
3	7	Yes.	10	Somewhat likely	10	Disagree
4	3	Yes.	8	Somewhat likely	9	Agree
5	8	Yes.	8	Very unlikely	8	Disagree
6	5	Yes.	8	Somewhat likely	8	Strongly disagree
7	6	Yes.	7	Somewhat likely	8	Strongly agree
8	3	No.	7	Somewhat likely	8	Disagree
9	2	Yes.	7	Neutral	7	Disagree
10	5	Yes.	8	Neutral	8	Strongly disagree
11	7	Yes.	8	Somewhat likely	9	Disagree
12	8	No.		Neutral	5	Disagree

	36	37	38	39	40
	Please estimate: over the past 2 years, what percentage of the orders that you've delivered to your clients was returned?	"Using FURNIT my clients will be happier with the furniture and decoration items delivered and less likely to return them." To which degree do you agree or disagree with this statement?	Please estimate the percentage of your delivered goods (furniture, decoration items, accessories) that will be returned once FurnIT is used.	"FurnIT will allow me to attract orders of higher values." To which degree do you agree or disagree with this statement?	Please estimate the percentage of increase in order value that you would expect once FurnIT is used.
1	Less than 10%	Disagree	Less than 10%	Neutral	Less than 10%
2	Less than 10%	Disagree	Less than 10%	Agree	10-20%
3	one. My shipments are never returned	Disagree	None of my orders will be returned	Disagree	I expect no change in order value.
4	one. My shipments are never returned	Neutral	None of my orders will be returned	Agree	10-20%
5	one. My shipments are never returned	Disagree	Less than 10%	Disagree	I expect no change in order value.
6	one. My shipments are never returned	Neutral	None of my orders will be returned	Neutral	I expect no change in order value.
7	Less than 10%	Neutral	Less than 10%	Disagree	I expect no change in order value.
8	Less than 10%	Neutral	Less than 10%	Disagree	I expect no change in order value.
9	Less than 10%	Disagree	Less than 10%	Disagree	I expect no change in order value.
10	Less than 10%	Agree	Less than 10%	Neutral	Less than 10%
11	Less than 10%	Disagree	Less than 10%	Agree	I expect no change in order value.
12	Less than 10%	Neutral	None of my orders will be returned	Disagree	I expect no change in order value.

	41	42	43	44	45	46
	How likely is it that FURNIT will help you sell more furniture versus all other design items sold on your website?	Please estimate the percentage of increase in furniture sales that you would expect once FurnIT is used.	"The average time spent by myself or by my salesperson in closing a deal with a client is too long. This is a concern for my business." To which degree do you agree or disagree with this statement?	"FurnIT will help me to significantly shorten the time it takes me or my salesperson to close a deal with a client." To which degree do you agree or disagree with this statement?	Please estimate the percentage in which the time spent prior to closing a deal with a client may shorten once FurnIT is used.	"The average time spent by myself or by my salesperson in closing an order with a manufacturer is too long. This is a concern for my business." To which degree do you agree or disagree with this statement?
1	Somewhat likely	Less than 10%	Disagree	Disagree	Less than 10%	Disagree
2	Somewhat likely	10-20%	Strongly agree	Agree	41-50%	Neutral
3	Somewhat likely	Less than 10%	Disagree	Disagree	I expect no change.	Disagree
4	Somewhat likely	10-20%	Agree	Neutral	I expect no change.	Disagree
5	Very unlikely	I expect no change in furniture sales.	Strongly disagree	Strongly disagree	I expect no change.	Strongly disagree
6	Somewhat likely	Less than 10%	Strongly disagree	Agree	Less than 10%	Neutral
7	Somewhat likely	10-20%	Disagree	Disagree	I expect no change.	Agree
8	Neutral	I expect no change in furniture sales.	Disagree	Disagree	I expect no change.	Disagree
9	Somewhat likely	Menos del 10%	Agree	Neutral	I expect no change.	Agree
10	Neutral	Less than 10%	Strongly disagree	Strongly disagree	Less than 10%	Strongly disagree
11	Somewhat likely	Less than 10%	Neutral	Neutral	I expect no change.	Neutral
12	Somewhat likely	I expect no change in furniture sales.	Disagree	Agree	10-20%	Disagree

	47	48	49	50	52
	"FurnIT will help me to significantly shorten the time it takes me or my salesperson to close an order with a manufacturer." To which degree do you agree or disagree with this statement?	Please estimate the percentage in which the time spent prior to closing an order with a manufacturer may shorten once FurnIT is used.	"I believe that using FURNIT I will be able to significantly reduce my spendings on support material." To which degree do you agree or disagree with this statement?	Please consider the current costs of production and shipping of support material, such as catalogues. What percentage of these costs do you think you could save using FurnIT?	What is your general opinion of the FurnIT platform?
1	Disagree	Less than 10%	Disagree	Less than 10%	Interesting
2	Neutral	Less than 10%	Neutral	I do not expect to save on support material.	Very interesting
3	Disagree	I expect no change.	Disagree	I do not expect to save on support material.	Interesting
4	Disagree	I expect no change.	Disagree	I do not expect to save on support material.	Interesting
5	Strongly disagree	I expect no change.	Strongly disagree	I do not expect to save on support material.	Very interesting
6	Neutral	I expect no change.	Disagree	I do not expect to save on support material.	Interesting
7	Disagree	I expect no change.	Disagree	I do not expect to save on support material.	Very interesting
8	Disagree	I expect no change.	Neutral	I do not expect to save on support material.	Interesting
9	Neutral	I expect no change.	Neutral	I do not expect to save on support material.	Not much interesting
10	Strongly disagree	Less than 10%	Strongly disagree	I do not expect to save on support material.	Interesting
11	Neutral	Less than 10%	Neutral	Less than 10%	Very interesting
12	Agree	10-20%	Neutral	I do not expect to save on support material.	Interesting

Add any comment and/or suggestion if you have it, please...	
1	Estoy usando DecoDesign y la gente se hace a la idea de lo que tendrán en su casa
2	Antes usabamos PlanIT por el motor de renderización, pero ya no lo usamos ya que había un porcentaje muy bajo de fabricantes en las librerías. Ahora usan SketchUp que es programa mucho más flexible.
3	Ya estamos utilizando una herramienta 3D para realizar los proyectos.
4	Soy diseñadora y uso herramientas de mayor precisión, Es interesante para gente que no usa estas herramientas pero no en mi caso
5	Me parece muy interesante para una tienda normal y corriente pero nuestra tienda trabaja con muebles muy baratos y los clientes ya saben a lo que vienen. Las ventas son muy rápidas.
6	Vamos a casa de los clientes a tomar medidas. Si la App de realidad aumentada permite visualizar en el lugar físico pudiera ser que algún cliente realizara cambios a lo seleccionado inicialmente lo cual podría generar dudas..., cambios, modificaciones, ...
7	Mucha de la gente que viene es gente mayor (pasados los 40). Difícilmente serán capaces de utilizar este tipo de herramientas por ellos mismos.
8	
9	Tal y como está ahora creo que es poco interesante ya que le falta mucho desarrollo: especificar si hay certificación con el fabricante, si el programa haría muebles especiales, la calidad de los renders, ... Tal y como está ahora creo que para una tienda todavía no está maduro.
10	-
11	
12	