

User Research Report

SEBO Vacuums | www.sebo.us

Ania Harrell | March 2022



EXECUTIVE SUMMARY

The SEBO brand is proud of its high-quality, deep-cleaning products produced in its German facility. However, the website does not reflect the essence of the brand. The SEBO.us website is elementary and appears to have been created twenty years ago. It follows a table structure of websites synonymous with the early 2000s, and it's very text-heavy with poor image quality. Currently, users find the site "overwhelming" and do not know where to begin their shopping journey.

METHOD

The research done on the SEBO.us website includes an analysis of the current website through Heuristic evaluations and competitive reviews. Additionally, user interviews, surveys, journey mapping, card sorting, and usability testing were done to help understand the customer and find opportunities for the brand.

RESULTS

Throughout each method, similar complications began repeating. The lists below are the common problem areas for the SEBO website.

- The site is challenging to navigate, there are far too many options for the user to select, and the main navigation is sometimes overlooked.
- The website contains a great deal of text which is overwhelming for some. Users do not know where to start their research journey.
- Users wanted a way to compare each product. They wanted to see product specifications side by side, so they understood the difference between vacuum models.

- The language used on the website was very specific to the SEBO company, and often users did not understand the meaning of the words. A particular example is the word "boost," users saw there was a price difference between models but did not know what the value was.

OPPORTUNITIES

The SEBO brand would benefit from a more streamlined modern website that guides its users in selecting a vacuum model. Website pages must have only one focal point with a strong headline and call to action to invite people to shop. While shopping, the website must offer a way to compare products or a product selector for users to input their vacuum needs, and then SEBO presents them with recommended vacuum models.

Additional areas of opportunity for SEBO.us:

- Streamline the navigation and incorporate more sub categories to organize the various pages
- Update product descriptions to be considered and use a common everyday language to help educate users and increase their confidence in their vacuum selections.
- Incorporate lifestyle photography to help users feel the product is attainable and will work for their lifestyle
- Include short videos describing the benefits to users, such as the canister size and ability to pick up pet hair easily.
- Create new innovative ways to help users shop for vacuums, such as renting for a limited time or using AI to create a virtual salesperson.
- Once a vacuum is selected, showcase corresponding accessories.

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SEBO.us website

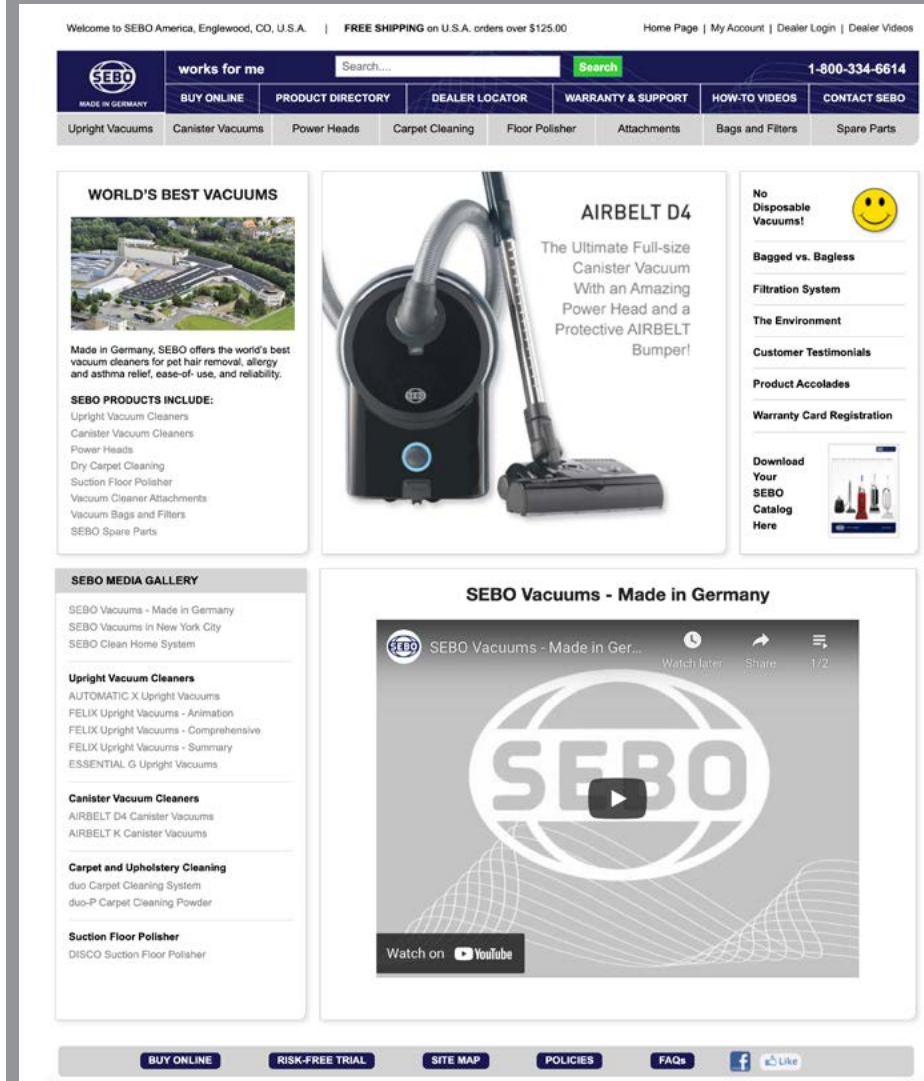
SEBO is a German-made vacuum cleaner company that is very proud of its high-quality, deep-cleaning products. The vacuums are light, powerful and offer a closed filtration system which is good for those with allergies and asthma. Their claim to fame is that they are the vacuum of the White House and Buckingham Palace.

IMPROVEMENT BENEFITS

Although SEBO sells high-end vacuums, its website does not portray a premium look and feel. The current SEBO website is not inviting, and it is difficult for a user to determine where to begin their vacuum shopping journey. In addition, the grainy product photography and the outdated website make the brand feel as if its vacuums do not incorporate modern technology.

Equally important to a modern look and feel, the SEBO website would benefit from new eCommerce pages that allow users to explore each vacuum model with lifestyle photography and lists of user benefits. With revamped eCommerce pages, a user would feel secure and confident in purchasing from the site.

Lastly, SEBO is not a well-known high-end vacuum brand, yet its products are superior. With a new website and robust marketing strategy, SEBO could become a competitive force in the high-end vacuum marketplace.



SEBO.us Site Requirements Summary

Business Requirements

- Increase sales with revamped eCommerce pages with secure check out process
- An easy path to purchase incorporating Paypal, Apple pay, etc.
- Recommended accessories- showcase accessories that correspond with the vacuum being purchased
- About Us page with company history
- Increase sales to the homeowner market
- Gain market share in the high-end vacuum market
- Boost Accessory sales

Marketing Requirements

- Improve SEO to reach more customers
- Showcase brand features and benefits
- Modern look and feel
- New product photography with a focus on lifestyle images, including families and pets
- Video clips and animations
- Product selection tool
- Search function

User Requirements

- A clear distinction between homeowner and commercial vacuums
- Headlines and brief product descriptions that can be scanned
- Lifestyle photography and videography
- Ability to compare products
- See user reviews
- An easy path to purchase- focus on the fewest clicks

Site Requirements In Depth

SEBO aims to elevate its brand with a website reflective of its high-quality vacuums. The website's priority is to educate customers and encourage them to purchase a vacuum with accessories.

BUSINESS REQUIREMENTS

With goals to increase online sales, a Business requirement is to improve the path to purchase. From a user's perspective, this is a benefit. Once a user decides to make a purchase, they want to know that their credit card information is secure, and they **want a simple shopping cart that displays their cost with the fewest number of clicks and form fields to fill out when checking out.**

SEBO accessories have high margins therefore the second business requirement is to provide accessory recommendations within each vacuum models webpage. **Customers also like to see which accessories correspond with the product** they wish to purchase or already own. It's helpful to know which vacuum bags and attachments fit their machine.

The last business requirement is to include the company history. While this is not a priority to the user, SEBO puts a lot of emphasis on their heritage and would like to share their story with their customers.

MARKETING REQUIREMENTS

The requirement from the marketing team focuses on customer education and increasing the perceived value of SEBO vacuums. Each of the Marketing requirements listed is meant to enhance the customer shopping journey and compete with other high-end vacuum brands.

Site Requirements Cont.

Most online research starts with a search engine, so **improved SEO** would allow users to find the SEBO website easily. Next, users scan web pages and do not read long paragraphs. Then, showcasing product features and benefits with a headline, subheadline, and bullet points allows users to quickly learn more about each product.

A more modern, high-end-looking website with beautiful product photography and videos would increase the users' perceived value and justify the high cost of SEBO vacuums.

Next, if the user is starting their vacuum shopping journey and is unfamiliar with the SEBO brand, then **a product selection tool would help users know which products fit their needs**. Users can select the floors they have, if they have pets, any allergy or asthma concerns, etc. Then, the product selector would produce a list of recommended vacuums. Showcasing only a few products at one time reduces “analysis paralysis,” which is when a person has too many choices, so they don't buy anything at all.

Finally, the search function is excellent for users who know what they are looking for and want quick access.

USER REQUIREMENTS

User requirements boil down to speed and the ability to understand the website product quickly. Users want to know if SEBO is the right product for them in a matter of seconds. They want to scan the product features and benefits, and if they are still interested in learning more, they will watch a video and see the vacuum in a home setting. Customers also like product comparison charts and user reviews to help them make informed decisions.

Last, users tend to leave a website if it's challenging to figure out and there is too much clicking. To help users find what they need, the page navigation must be easy to follow. The path to purchase must also be seamless with as few as possible form fields and buttons.

SEBO | Bissel | Miele | Dyson

Competitive Analysis

Competitor Comparison Chart

The below chart compares the SEBO.us website to other high-end vacuum cleaner websites.

	SEBO.us	Bissell.com	Mieleusa.com	Dyson.com
Unique Features	• Commercial and homeowner product lines	• Bissell's primary focus is home cleanliness and appear to be vacuum experts with wide product offering • Search by vacuum type or by Floor type • Bissell has it's own charity to help homeless pets	• Large product offering especially with canister vacuums • Appears high-tech and very high-end	• Video playing on home screen of how vacuum technology works • High priority on technology • Product selector quiz
Visual Design Strengths	• Stacked navigation	• Lifestyle photography with Men using vacuum • Appeal to the masses with images of dirty dogs and everyday messes (ice cream on floor) • Easy to understand product selection filters	• Beautiful photography and well-written summary paragraphs describing their 4 vacuum categories • Product filters	• Video playing on home screen of how vacuum technology works • High priority on technology • Product selector quiz
Design Weakness	• Text heavy • The information is too condensed and there is no focal point • Numerous tabs open when browsing	• Promotional messaging that detracts from product information	• Product selection filters are too brand specific (brand jargon is confusing) • Difficult to go back to product overview pages, site keeps redirecting to basic product list.	• Website focuses on hair care products

Competitor Comparison Chart Cont.

	SEBO.us	Bissell.com	Mieleusa.com	Dyson.com
eCommerce	• Only one check out page • Very high shipping costs • Steps laid out at top of page • “Review Order” button confusing	• Large “Add to Cart” button • Accessory pop up, user can easily add extras to cart • Ability to easily donate to Bissell Homeless Pet Foundation	• Bright “Add to Cart” button • Check Out steps are clearly labeled • Difficult to add multiple accessories • After order is confirmed, user is redirected to different payment screen, very odd.	• Large “Add to Basket” button • Easy to add accessories • “Secure checkout” button before user adds credit card info • Steps clearly laid out • PayPal & Amazon checkout options
Special Offers		✓		✓
Free Shipping	✓	✓	✓	✓
Chat bot		✓	✓	✓
Product Reviews		✓		✓
Use of Icons		✓	✓	✓
Product Comparison Chart		✓	✓	

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Every Purchase Saves Pets™

BISSELL proudly supports BISSELL Pet Foundation® and its mission to help save homeless pets.

The strength of the Bissell website is that it includes **relatable lifestyle photography with men, kids, and pets**. Videos also showcase everyday messes and mishaps and how the vacuum takes care of one of them.

The product selector tool helps narrow down which product is right for the user, and the ability to checkout is frictionless. The inclusion of adding accessories to the cart is effortless as well.

Bissell also has a charity that supports homeless pets. There is a donation component to their checkout process, and giving is a simple extra click while checking out.









[KITCHEN](#)
[LAUNDRY CARE](#)
[VACUUM CLEANING](#)
[CLEANING PRODUCTS](#)
[SERVICE](#)
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Vacuum Cleaners

With or without a bag – or would you prefer the robot vacuum cleaner? Deciding which model is the right for you depends on your home and personal preferences. Discover our range of vacuum cleaners now.

[SHOP ALL VACUUMS](#)



[Give Feedback](#)

Throughout the Miele website, the vacuums are shown in beautiful, expensive-looking homes that do not appear to be messy in any way. There is an emphasis on technology with simulated 3-D drawings of the interior of the vacuums. The **headlines and writing throughout the site add to exclusivity and premium brand**. Also, every product includes a list of “What’s in the Box” so users understand what they are purchasing.

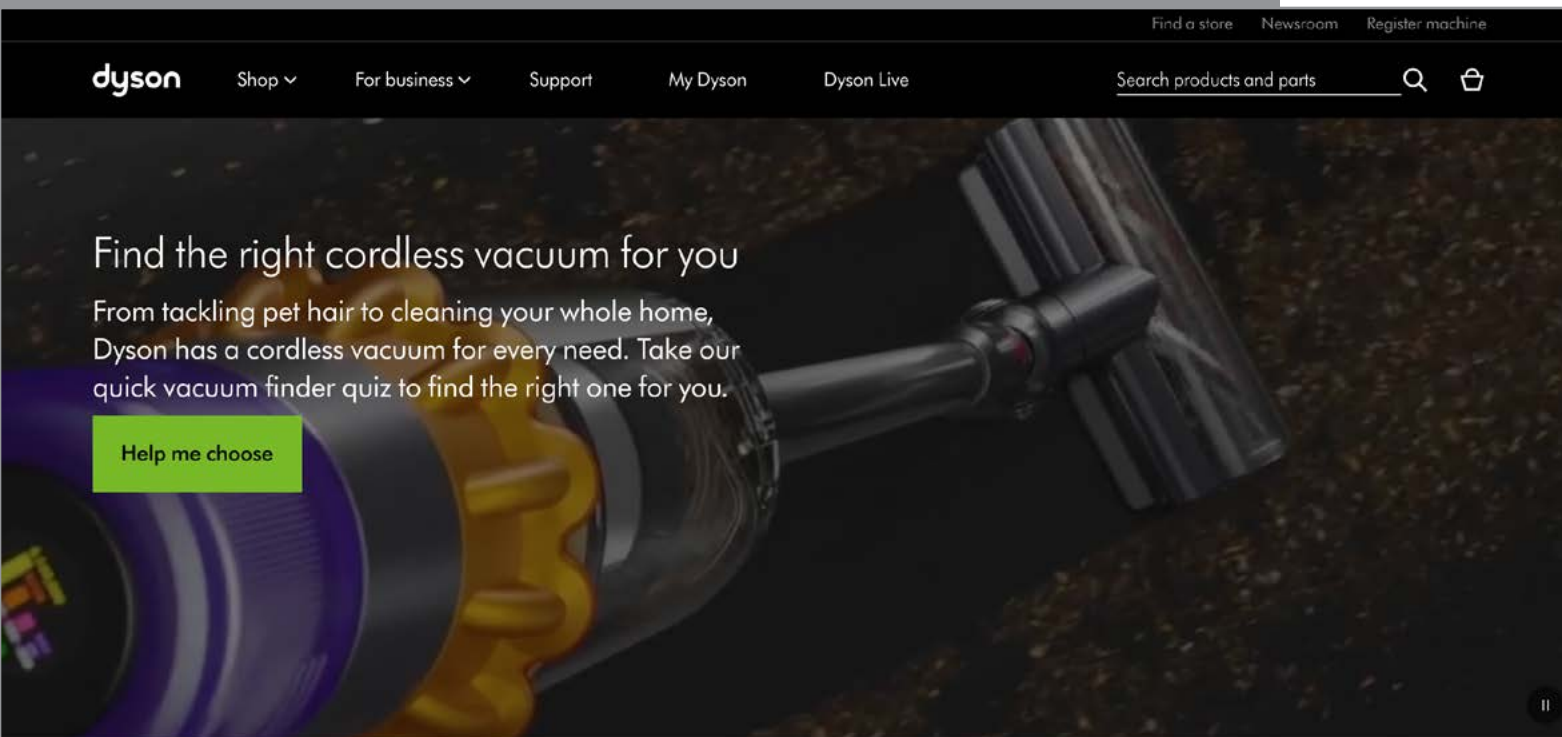


Canister Vacuums

Our canister vacuum cleaners with filterbag combine exceptional cleaning performance with unique user convenience and first-class Miele quality. They also ensure outstanding hygiene: The filterbag can be replaced without releasing any dust and is therefore completely hygienic.

mieleusa.com





The Dyson brand focuses mainly on technology and the engineering into their products. Much of the product photos and videos explore how the vacuum works internally when picking up dust and dirt.

On product pages, **Dyson uses icons for users to quickly understand the benefits they are receiving.** They also prominently display the product ratings.

Overall the Dyson website invites users to learn more about their brand and encourages users to stay on the site.

Explore vacuums by format

dyson.com

Buy direct from the people who made it

 Free tools with auto- registration Exclusive to Dyson.com	 Free shipping Exclusions apply	 2-year warranty Includes parts and labor	 Money-back guarantee Free 30-day return policy
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Dyson Outsize
Overall rating
4.5/5
★★★★★ 720 Reviews

★★★★★ Reviewed on 3/18/2021
I replaced my Cinetic Big Ball with this cordless hballle
It has all the power and functionality of my old upright but with even more maneuverability. No more cords or moving plugs to worry about. I am able to clean the house faster and more effi...
[Read more](#)

Competitive Analysis Summary

After comparing three high-end vacuum cleaner brand websites, **Bissell and Dyson have robust websites with easy-to-follow navigation and content that draws the user in to learn more.** The lifestyle photography used throughout both sites makes the user feel the brand is attainable. Additionally, the current trend among online shoppers is to read product reviews before purchasing, and both websites include star ratings and user comments. Also, the path to purchase is straightforward and seamless.

Although it is not as inviting and user-friendly as Bissell and Dyson, the Miele site focuses on exclusivity and gives upscale perceived value. However, SEBO.us would gain tremendous value if it incorporated any of its competitors' website functionality and features. Unfortunately, very little in the current SEBO.us website benefits the user and the company.

Personas



“I feel good when the house is clean.”

AGE	36
STATUS	Married w/ 2 Kids
PROFESSION	Child Psychologist
LOCATION	Silver Spring, MD

Angela Miller | Clean-Freak

Neat

Creative

Patient

Introvert

INFLUENCES

- **Friends:** Asked friends which vacuum brands they prefer to clean with
- **Family:** Mother-in-Law and husband encouraged Angela to purchase a vacuum that makes her happy.
- **TV:** Saw various vacuum cleaner commercials as well as an interview with a vacuum cleaner company CEO

OTHER CLEANING TASKS



Deodorize



Dusting



Picking Up

CLEANING SCHEDULE



1-2 x Week

SCENARIO

Angela has a hectic schedule with a full-time job, after-school activities for the kids, and picking up after pets. When her day is done, she looks forward to enjoying a glass of wine with her husband in a neat and orderly home. However, to create her zen space, she has to lug around a heavy, clunky vacuum and miserably clean her house. She gets very tired after vacuuming. With encouragement from her mother-in-law telling Angela she deserved a quality vacuum, plus her husband telling her to buy something that makes her happy, Angela is now in the market to purchase a vacuum. She has decided she wants a lightweight and powerful model, and Angela is willing to spend extra to get a high-quality machine.

GOALS

- To see clean surfaces and floors
- To have a powerful vacuum with strong suction that will move quickly with her around the house.

MOTIVATIONS

- Want to know house is clean and all pet & people hair is picked up
- To enjoy relaxing glass of wine in the evening, not surrounded by kid and pet mess

FRUSTRATIONS

- When the power cord get tangled up and she has to stop vacuuming
- She does not like it when hair jams in the rollers and has to be cut out
- Cheap attachments that fall all while cleaning
- Not enough suction and the vacuum misses spots



“Vacuuming is a chore,
but I do it because I don’t
like a messy house.”

AGE	42
STATUS	Married w/ 2 Kids
PROFESSION	System Analyst
LOCATION	Trumbull, CT

Pete Williams | Mr. Clean

Busy

Organized

Analytical

Extrovert

INFLUENCES

- **Friends:** Talks to friends about which vacuums they use and their experience with various models.
- **Repair Man:** Asks for expert vacuum advice, specifically which models need the least amount of repair and have the longest lifespan.
- **Online Reviews:** Reads all positive and negative reviews from Amazon and big box stores.

OTHER CLEANING TASKS



CLEANING SCHEDULE



SCENARIO

Pete is a dad of two adventurous kids and an old beloved dog. He works from home and likes things neat and orderly. His wife dislikes cleaning so Pete has taken on the task of tidying up and vacuuming every week, but it frustrates him. He is debating if he should buy a new vacuum because his current model is old, duct-taped, and needs repair. However, he is not sure what to purchase, and his primary source of information is product reviews which all seem conflicting. Pete would like his weekly chore of vacuuming to feel less like a chore.

GOALS

- Have a clean house
- To pick up dog and kid messes

MOTIVATIONS

- To not see dog kibble and food droppings from kids
- Get rid of dirt and dust

FRUSTRATIONS

- Canister vacuum is very cumbersome and gets caught on the furniture
- Finding replacement bags is challenging
- Items that get stuck in the tubes
- Swapping out attachment when vacuuming different floor surfaces
- Duct taped tubing, broken clips, and paying for expensive repairs



“At my age, I prefer hands-off vacuuming”

AGE	67
STATUS	Married, Empty-Nester
PROFESSION	Retired Teacher
LOCATION	Rutland, VT

Carol Brown | Pride In Home

Busy

Empathetic

Inpatient

Extrovert

INFLUENCES

- **Friends:** Carol's friend gave her a Roomba and now she's hooked
- **Family:** Mother always told her to get a self-propelled vacuum to save her back
- **Online:** Researches different models and manufacturers

OTHER CLEANING TASKS



Dish Washing



Window Cleaning



Cleans surfaces

CLEANING SCHEDULE



3-4 x Week

SCENARIO

Carol recently bought a house in Vermont with spectacular views. She loves her new home and enjoys caring for it. After being gifted a robotic vacuum, Carol is hooked. She enjoys the ability to take care of other cleaning tasks while the vacuum does its job. The only drawback to the robotic vacuum is that Carol's home has multiple levels and wants dedicated vacuums for each floor. She reads information from robotic vacuum manufacturers online and feels the best approach is to stick with a brand she knows and trusts. If only her daughter would show her how to program the vacuum to clean on a daily schedule.

GOALS

- To not see any dirt
- To have all hair picked up

MOTIVATIONS

- To spend more time on other things
- Entertain friends and family and her beautiful home

FRUSTRATIONS

- Vacuuming stairs
- Vacuum models that are not self-propelled
- Very heavy models that are difficult to pick up
- Doesn't know how to program robotic vacuum to clean on a schedule

Research



Interview

The objective of the interview is to study the path users take when purchasing a vacuum. In addition, we'd like to understand the research they've done, if any, how they selected the model they bought, and their check-out experience.

PHASE 1- INTRODUCTION

Thank you for meeting with me today. My name is Ania Harrell, and I'm working on a project to redesign a website for the vacuum cleaner company SEBO. Our meeting today should be about an hour, and we'll be talking about your experiences with purchasing a vacuum. If it's OK with you, I'd like to record our conversation so I may refer back to it in the future.

This meeting aims to learn how people shop for vacuums and how to improve the online vacuum shopping experience. I am not affiliated with SEBO; therefore, anything you say will not hurt my feelings. I am here to learn about your experiences with buying a vacuum honestly and candidly. If there are any questions you do not wish to answer, please say, and we can move on.

Since this website is in development, please remember that I ask you not to share any information from our meeting today. I would appreciate it if you could review and sign the nondisclosure agreement, which simply states that you will not discuss this website with anyone until it has been released or two years have passed.

Last, if you feel you cannot continue the interview, you may leave at any time. You may also stop me at any time if you have any questions.

Interview Cont.

PHASE 2- WARM-UP

Let's talk about vacuums and online shopping.

- Who in your household vacuums the most?
- About how often do you vacuum a week?
- Do you shop online?

PHASE 3-BODY OF SESSION

Before you purchased your last vacuum, did you do any research?

- Did you talk to friends and family?
- Were TV or online ads an influence?
- If you looked online, did you go directly to a brand site or a more general site?
- Did you read customer reviews and consider them?

When it comes to making appliance purchases, do you prefer shopping online or in-store?

- Can you explain to me your thought process?

How did you find the vacuum you thought would best suit your needs when shopping online?

- Please describe to me any frustrations you may have experienced choosing a product.

Interview Cont.

Have you ever used a product comparison chart offered by websites? (Explanation if necessary, this is where you choose approximately three different models, and the website generates a chart for you to compare product specifications.)

- If so, was the information on the chart helpful?
- Did it help you determine which models you'd like to purchase?

While shopping online, did you ever enter your needs and wishes and let the website generate product recommendations?

- If yes, were the recommendations helpful?
- Did you purchase one of them?

When reviewing a specific product, what were some of the features and benefits you looked for?

- Did you look at comfort features? (example: self-propelled, comfort grip handles)
- Was the technology used to make the product an influence?
- How about where the product was made?

When viewing the product photography, what types of images stood out?

- Which types of photos were most helpful?
- Were there any pictures you felt were unnecessary?

Would a coupon offer or a sale sway your decision process?

- If so, which is the more appealing offer?

Interview Cont.

I'd like to move on to the shopping cart experience.

- Now that you have a product selected, do you like seeing which accessories fit your model?
- Have you purchased the suggested accessories?
- What are some of the frustrations you've experienced when making an online purchase?
- Do you like using PayPal, Apple Pay, Amazon pay?
- Is free shipping vital to you?
- If yes, will you continue with the purchase?
- Have you ever used the chat feature (often seen in the lower left of a web page) if you ever got stuck checking out?

PHASE 4- COOLING DOWN

This meeting has been constructive, and I appreciate your honest and candid answers. I now understand some of your vacuum buying habits as well as your online shopping preferences. Is there anything else you'd like to share with me? Do you have any questions for me?

PHASE 5- WRAP UP

Our time together has come to a close; I will end the recording now. Thank you for taking the time to talk with me today.



Survey

To capture a large audience and hear from vacuum shoppers from around the country, the below survey was developed. Emails will be sent to all SEBO customers.

ONLINE VACUUM PURCHASE EXPERIENCE

Greetings and thank you for participating in the survey. The questions outlined in the survey will be regarding your most recent shopping experience while buying a vacuum cleaner. Your answers will help develop a new website and enhance the customer experience for SEBO vacuum cleaners.

This survey will take between 5-10 minutes of your time. All of your answers will be kept confidential.

If you have any questions, please reach out to aniah617@gmail.com

Let's begin.

User Survey

1. Who is the primary user of the vacuum cleaner in your home?

(Select all that apply)

- ☐ Self
- ☐ Spouse
- ☐ Other household members
- ☐ Outside help

2. How often do you vacuum a week?

- ☐ Less than once a week
- ☐ Once a week
- ☐ 2-3 times a week
- ☐ 4+ times a week

3. What type of research did you do before making your purchase decision?

(Select all that apply)

- ☐ Talk to friends & family
- ☐ Read online reviews
- ☐ Saw a TV commercial
- ☐ Read a web publication (such as Consumer Reports, Better Homes & Gardens, etc.)
- ☐ Visited Vacuum cleaner brand websites
- ☐ Other

(Include form field to add custom response)

4. When looking at each vacuum model, please rank which features were most important to you.

- | | |
|--|--|
| ☐ Dust Bin capacity | ☐ Price |
| ☐ Filtration | ☐ Brand |
| ☐ Power | ☐ Cord Length |
| ☐ Weight | ☐ Other (Include form field to add custom response) |

5. Was the product photography helpful in deciding which model to purchase?

- ☐ Yes
- ☐ No

If yes:

6. Which photography helped the most? Check all that apply

- ☐ Pet messes being cleaned up
- ☐ Vacuum alone
- ☐ The inner workings of the vacuum
- ☐ Close up imagery of the vacuum, such as the on/off switch, brush height adjustment lever, etc.

7. How helpful were the videos of the vacuum cleaner in use?

- ☐ Extremely helpful
- ☐ Very helpful
- ☐ Somewhat helpful
- ☐ Not so helpful
- ☐ Not at all helpful

User Survey cont.

8. How helpful were the videos showing how the vacuum works, such as changing the brush height, retracting the cord, or emptying the dust bin?

- ☐ Extremely helpful
- ☐ Very helpful
- ☐ Somewhat helpful
- ☐ Not so helpful
- ☐ Not at all helpful

9. If a tool existed that allowed you to enter your vacuum needs, then it generated recommended models. How likely would you be to use it?

- ☐ All the time
- ☐ Sometimes
- ☐ Not at all

10. How likely are you to purchase an item because you have a coupon code?

- ☐ Extremely helpful
- ☐ Very helpful
- ☐ Somewhat helpful
- ☐ Not so helpful
- ☐ Not at all helpful

11. Are you more likely to purchase an item because of a discount?

- ☐ Yes
- ☐ No

12. Please explain. *Optional small write-in box for either answer.*

13. When reviewing different vacuum models, how likely are you to use a product comparison chart?

- ☐ Extremely Likely
- ☐ Very likely
- ☐ Somewhat likely
- ☐ Not at all

14. How often do you read product reviews?

- ☐ All the time
- ☐ Some of the time
- ☐ Not at all

15. How helpful are the comments users leave?

- ☐ Extremely helpful
- ☐ Very helpful
- ☐ Somewhat helpful
- ☐ Not so helpful
- ☐ Not at all helpful

16. How likely are you to purchase an item based on Star Ratings?

- ☐ Extremely Likely
- ☐ Sometimes
- ☐ Not at all

User Survey cont.

17. After making your product selection, how likely are you to purchase the corresponding accessories?

- ☐ Extremely Likely
- ☐ Very likely
- ☐ Somewhat likely
- ☐ Not at all

18. When would it be most helpful to see the corresponding accessories?

- ☐ With the products
- ☐ After the item was added to the shopping cart
- ☐ In the shopping cart
- ☐ No preference

19. Is the ability to repair the vacuum a determining factor in your purchase decision?

- ☐ Extremely important
- ☐ Somewhat important
- ☐ Not at all

20. After you decided to purchase the vacuum, did you prefer to buy online or find a store?

- ☐ Buy online
- ☐ Pick up instore
- ☐ Either option

Which vacuum type did you purchase?

- ☐ Canister vacuum
- ☐ Upright vacuum
- ☐ Commercial vacuum

If there is anything you'd like to tell us about your vacuum shopping experience, please write it here.

CLOSING STATEMENT

Thank you for participating in our survey! Your feedback will help us improved the online shopping experience.

If you have any questions, please reach out to aniah617@gmail.com.



Card Sorting

A card sorting study was developed to help organize the SEBO website content and understand how best to layout the main navigation menu. The goal is to determine how online shoppers look for information when purchasing a vacuum.

Twenty of the most common elements in vacuum shopping and potential categories were used to create the study utilizing the website Optimal Workshop. The study used a hybrid method where categories were given, but participants were able to add their own.

Participants who have purchased vacuum cleaners were asked to participate and recruited via email and text. The study was conducted using the online tool Optimal Workshop.

CARDS

- Attachments
- Powerbrush
- Canister Vacuums
- Upright Vacuums
- Commercial Vacuums
- Bags
- Filters
- Spare Parts
- Floor-type
- Product Videos

- Retailers
- Company Story
- FAQ's
- Floor Polish
- Warranty
- Extended Hose
- Crevice Brush
- Compare Vacuums
- Product Reviews
- Green Manufacturing

CATEGORIES

- Products
- Accessories
- Support
- About Us

Card Sorting

WELCOME MESSAGE

Welcome to the SEBO Vacuum card sorting activity. As a past vacuum cleaner shopper, we'd love if you could review all of the cards laid out and sort them into categories you feel they belong in. There are four suggested categories, but feel free to add your own. While you are organizing, keep in mind that there are no right or wrong answers; simply sort the carts as you see fit. This exercise should take approximately 10-15 minutes to complete.

HOW TO

Take a look at the list of items on the left. Please sort those items into groups that make sense to you. Use the groups provided or create your own by dragging and dropping an item from the left into the space on the right. There is no right or wrong answer. Just do what comes naturally. When you're done click "Finished" at the top right.

CLOSE

Your results have been recorded. Thank you for participating in this activity. Your feedback is incredibly helpful in improving the usability of the SEBO website.

PARTICIPANTS

Number of participants: **7**

Age range: **35 - 70**

Female participants: **4**

Male participants: **3**

Results Similarity Matrix

The similarity matrix shows how often participants grouped the same cards into the same categories by percentage. The similarities are also shown by color strength: white equals no similarities, while dark blue equals 100% similarities.

The results from the SEBO card sort show three distinct groups that over 71% of participants agree on.

Group 1

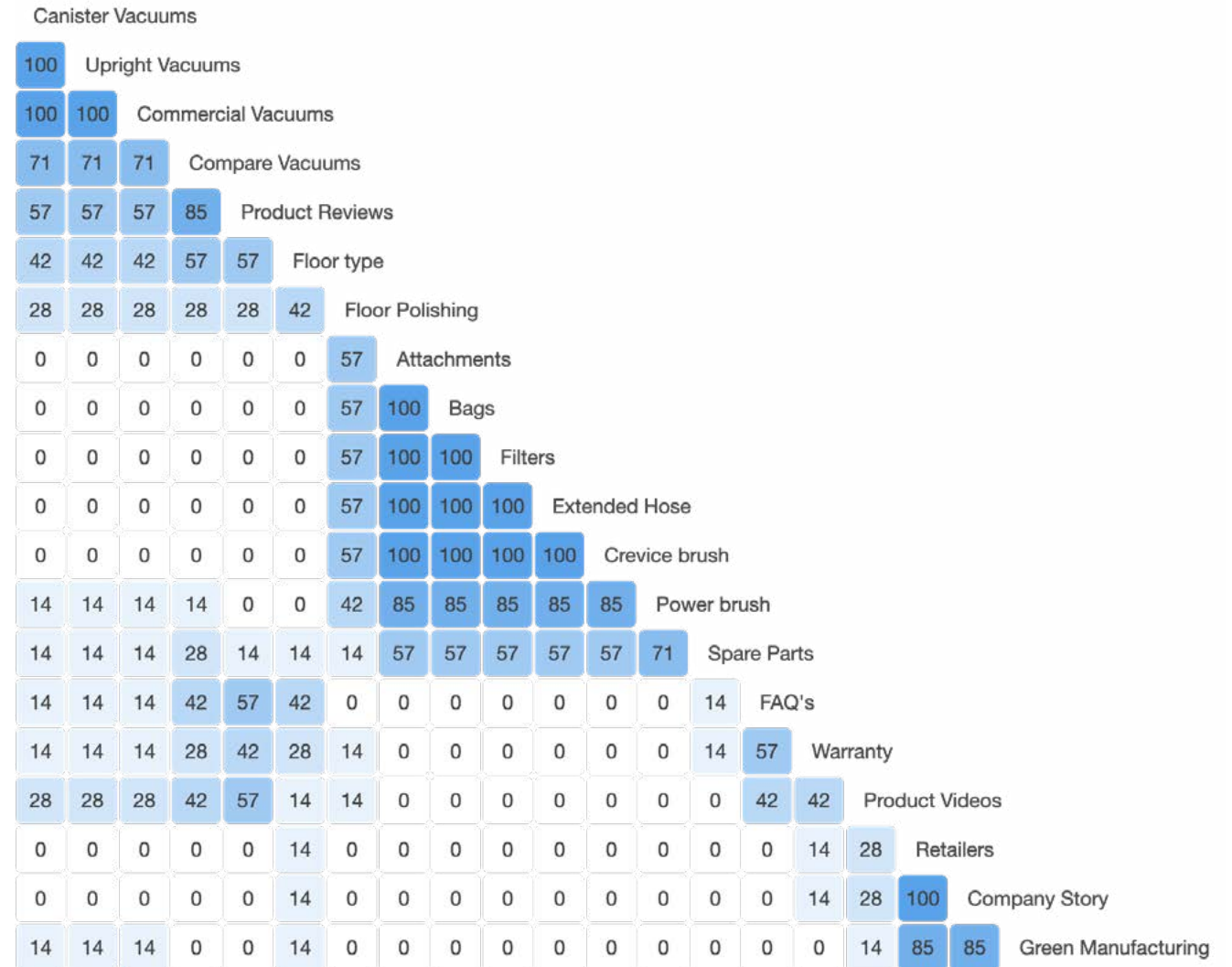
- Canister Vacuums
- Upright Vacuums
- Commercial Vacuums
- Compare Vacuums
- Product Reviews

Group 2

- Attachments
- Bags
- Filters
- Extended hose
- Crevice brush
- Power Brush
- Spare Parts

Group 3

- Company Story
- Green Manufacturing



Results Cluster Analysis- Dendrogram

The dendrogram shows a hierarchy of how participants grouped the cards. The shorter the horizontal lines, the more similar the items are. The longer the horizontal lines, the less similar they are. In the above dendrogram, the cards in the **About Us**, **Accessories**, and **Support** categories were strongly agree upon by 57% of participants. It is difficult to see in the dendrogram, but the **Light Blue** line linking Canister Vacuums, Upright vacuums, and Commercial vacuum were agreed upon by 100% of participants. However, the items in the **pink**, **purple**, **red**, **teal** and **light blue** color were more challenging for participants to agree upon the category placement. This may suggest additional categories or subcategories are necessary.



Results Standardization Grid

A standardization grid merged similar cards and categories. When participants agreed on the card and category, it was tallied. Then, to analyze the data, Microsoft Excel was used to filter the data. The images below represent each category filtered, ranking the most agreed-upon card placements. For example, in the group labeled A, all 7 participants agreed Retailers and Company Story belong in the “About Us” Category. Then 6 participants agreed, “Green Manufacturing belongs in that same category, and so on.

From this Standardization Grid, the most popular groups are:

Group A About Us

- Retailers
- Company Story
- Green Manufacturing

Group B Accessories

- Filters
- Extended Hose
- Crevice brush
- Bags
- Attachments
- Power Brush

Group C Products

- Upright Vacuums
- Commercial Vacuums
- Canister Vacuums
- Compare Vacuums

Group D Support

- FAQ's
- Warranty

Name	About us	Accessor...	Products	Support	N
Retailers	7				
Company Story	7				
Green Manufacturing	6		1		
Product Videos	2		2	3	
Warranty	1		1	5	
Floor type	1		3	2	
Upright Vacuums			7		
Spare Parts		4	1	2	
Product Reviews			4	3	
Power brush		6	1		
Floor Polishing		4	2		
Filters		7			
FAQ's			1	6	
Extended Hose		7			
Crevice brush		7			
Compare Vacuums			5	2	
Commercial Vacuums			7		
Canister Vacuums			7		
Bags		7			
Attachments		7			

Group A

Name	About us	Accessor...	Products	Support	N
Upright Vacuums			7		
Commercial Vacuums			7		
Canister Vacuums			7		
Compare Vacuums			5	2	
Product Reviews			4	3	
Floor type	1		3	2	
Product Videos	2		2	3	
Floor Polishing		4	2		
Warranty	1		1	5	
Spare Parts		4	1	2	
Power brush		6	1		
Green Manufacturing	6		1		
FAQ's			1	6	
Retailers	7				
Filters		7			
Extended Hose		7			
Crevice brush		7			
Company Story	7				
Bags		7			
Attachments		7			

Group C

Name	About us	Accessor...	Products	Support	N
Filters		7			
Extended Hose		7			
Crevice brush		7			
Bags		7			
Attachments		7			
Power brush		6	1		
Spare Parts		4	1	2	
Floor Polishing		4	2		
Warranty	1		1	5	
Upright Vacuums			7		
Retailers	7				
Product Videos	2		2	3	
Product Reviews			4	3	
Green Manufacturing	6		1		
Floor type	1		3	2	
FAQ's			1	6	
Compare Vacuums			5	2	
Company Story	7				
Commercial Vacuums			7		
Canister Vacuums			7		

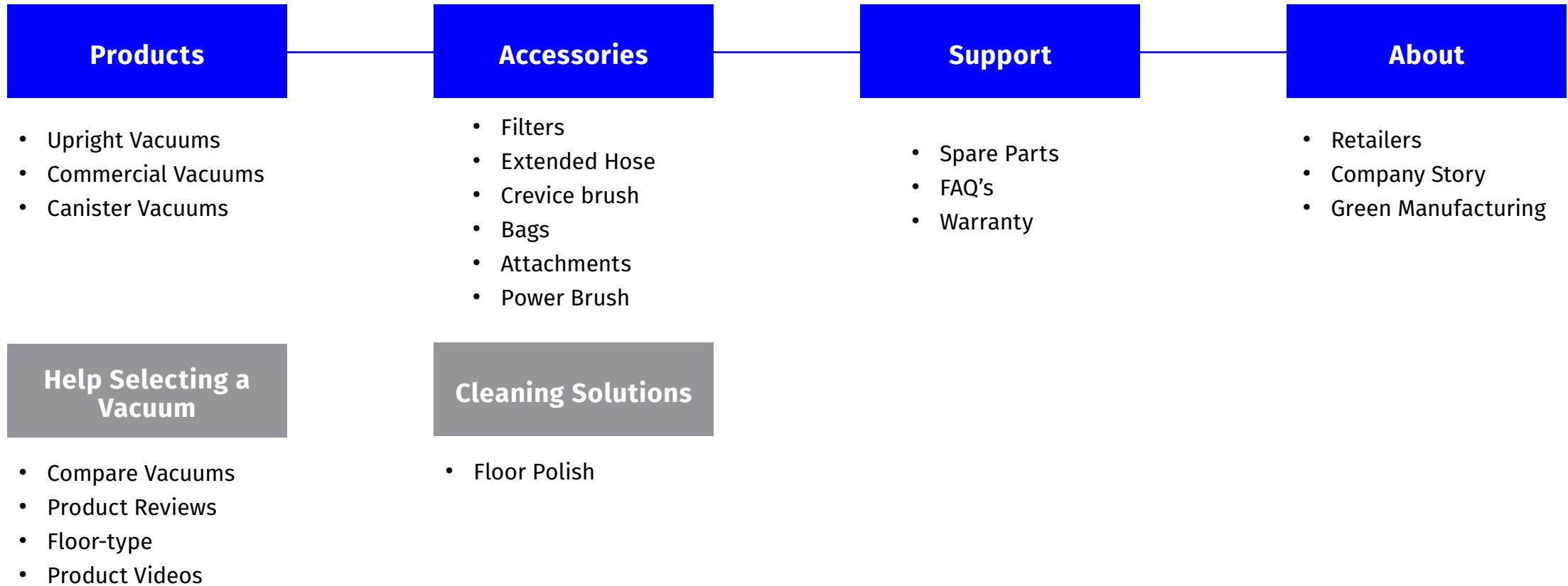
Group B

Name	About us	Accessor...	Products	Support	N
FAQ's			1	6	
Warranty	1		1	5	
Product Videos	2		2	3	
Product Reviews			4	3	
Spare Parts		4	1	2	
Floor type	1		3	2	
Compare Vacuums			5	2	
Upright Vacuums			7		
Retailers	7				
Power brush		6	1		
Green Manufacturing	6		1		
Floor Polishing		4	2		
Filters		7			
Extended Hose		7			
Crevice brush		7			
Company Story	7				
Commercial Vacuums			7		
Canister Vacuums			7		
Bags		7			
Attachments		7			

Group D

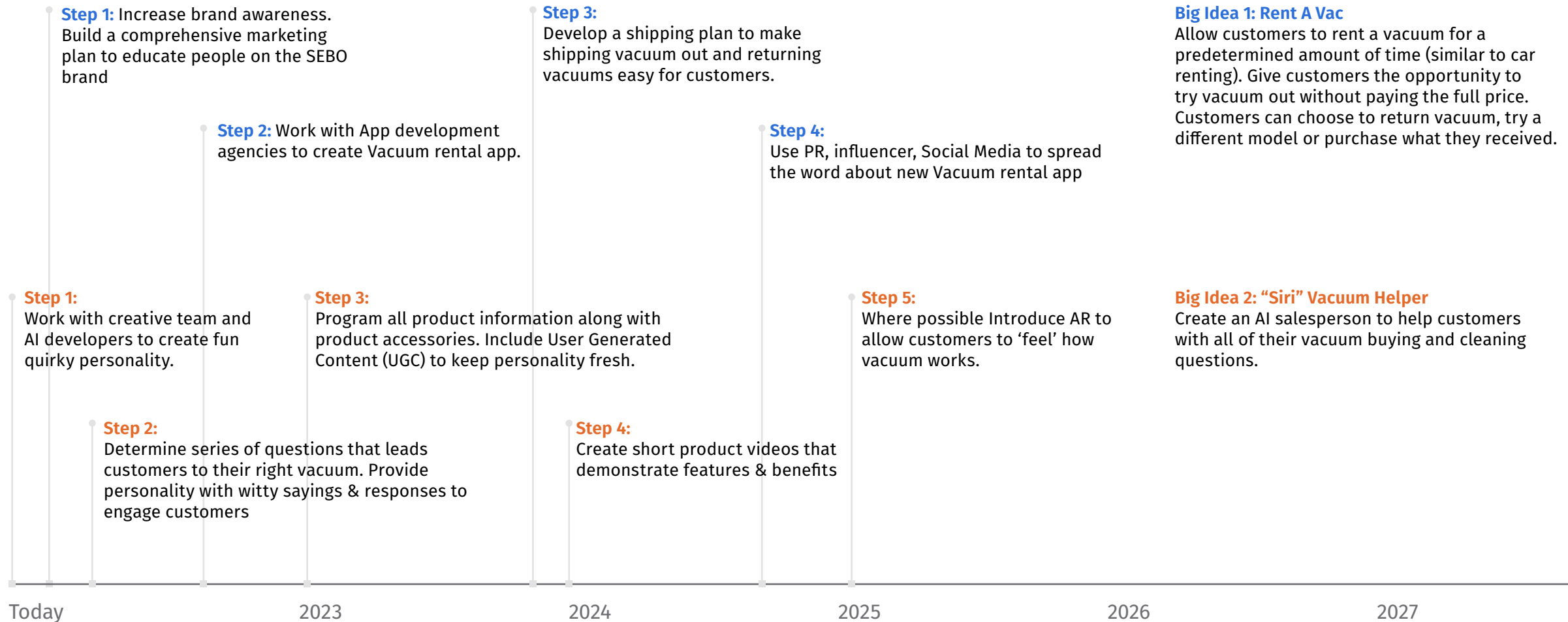
Recommended Information Architecture

After analyzing the data from all three charts, the below information architecture is recommended. Where participants were less in agreement, subcategories were introduced.



Backcasting

Backcasting is planning for future innovations- something that has never been done before. Some backcasting is based on existing research, but the focus is on creating a plan for a breakthrough idea. The two ideas below ladder up to a new **Future Vision** of helping people get the tools they need to clean their homes efficiently. Steps of how to achieve the big ideas are laid out on the timeline.



Journey Mapping

Using customer interviews, the Journey Map was created to pinpoint actions, thoughts, emotions while revealing helpful insights. The most relevant insights are listed here.

INSIGHT 1

The act of selecting a vacuum to choose was much more involved than expected. The customer had difficulty determining the differences between vacuum models and deciphering which option would work best for her home.

INSIGHT 2

Customers use third-party sources, such as Consumer Reports, to find unbiased information about products.

INSIGHT 3

Although a decision was made, the customer was still unsure of her purchase. There was no validation that she selected the best model for her needs.



Angela Miller

Scenario

Angela just purchased a new larger home and wants a lightweight vacuum with a larger debris capacity, so she doesn't have to empty the bag frequently.

Expectation

As a busy mom, Angela wants to go online and order a quality model that suits her needs to move to her next daily task.

	Phase 1	Phase 2	Phase 3	Phase 4
Doing	Goes online and tries researching vacuum models	Angela researched lots of vacuum models and created a spreadsheet	Decision as been made and Angela begins to order her vacuum.	Vacuum unpacking and at home testing
Thinking	Where do I begin? This is not going to be quick and easy task.	There are so many vacuum options, I don't know how to keep this information straight.	I hope I've made the right choice.	Happy the vacuum is finally here.
Saying	"Is there a consumer report on the best vacuums?"	"How do I keep the power, canister size, and other specification straight"	"I'm excited I finally picked a vacuum! I think it will work well for this house."	"It works really well! I made the right decision"
Emotions	 Discontent because her shopping journey is going to require more work.	 Very confused by the number of options and lack of consistency in information.	 Apprehensive. Angela is happy to have made decision but is not confident in her decision.	 Very confused by the number of options and lack of consistency in information.

Heuristic Evaluation

A thorough assessment was made of the SEBO website using Andy Budd's 9 Heuristics for Modern Web Application Development. This methodology follows nine web application guidelines based on industry-accepted usability principles. These principles (heuristics) are listed below:

1. Design for user expectations
2. Clarity
3. Minimize complexity & cognitive load
4. Efficiency & task completion
5. Provide users with context
6. Consistency & standards
7. Prevent errors
8. Help users notice, understand, and recover from errors
9. Promote a pleasurable & positive user experience

Through this evaluation, a table - found below - presents an issue of the site and the severity ranking of the issue. The severity ranking is a common scoring system created by UX expert, Jakob Nielsen.

0	I don't agree that this is a usability problem at all
1	Cosmetic problem only: need not be fixed unless extra time is available on project
2	Minor usability problem: fixing this should be given low priority
3	Major usability problem: important to fix, so should be given high priority
4	Usability catastrophe: imperative to fix this before product can be released

Heuristic Evaluation Table

Issue	Severity Rating	Heuristic
Outdated design	1	• Promote a pleasurable & positive user experience
There are multiple navigation sections.	2	• Clarity • Consistency & standards
Some of the navigation options feel ambiguous and unnecessary.	3	• Design for user expectations • Clarity • Minimize complexity & cognitive load
There are unclear menu options. E.g., the “site map” takes the user to a listed navigation page, showing the navigation options in a different format; the “buy online” and some product selections take the user to a different page and site.	3	• Clarity • Provide users with context • Minimize complexity & cognitive load • Efficiency & task completion
Selecting “buy online” takes the user to another website. It has the same look & feel of the main site but allows for a “view cart and buying options.	3	• Clarity • Provide users with context • Prevent errors • Help users notice, understand, and recover from errors
Menu options change or move depending on what site is being used (main site vs. buy online site).	2	• Clarity • Provide users with context • Prevent errors • Help users notice, understand, and recover from errors

Heuristic Evaluation Table, cont.

Issue	Severity Rating	Heuristic
The product pages have too much information.	3	• Clarity • Minimize complexity & cognitive load • Efficiency & task completion
Product add-on selections are unclear.	2	• Clarity • Consistency & standards • Efficiency & task completion
Blurry logo and social media link images.	1	• Promote a pleasurable & positive user experience
There's no "about" section.	2	• Design for user expectations

ANALYSIS

The SEBO Vacuums website would benefit by utilizing the modern web application development heuristics set by Andy Budd. The site is outdated from a visual design perspective and has an amplitude of navigation options with plentiful information making it difficult to operate. Due to these features, the website has a large amount of unnecessary complexity and clarity issues. Additionally, the website is not designed for minimizing complexity and cognitive load as the users must put time and work to find what they are looking for.

Overall, it's recommended that the SEBO website be redesigned to optimize user understanding and navigation with a modern plan.

Usability Testing

From commercial to upright to canister, SEBO offers a wide variety of vacuums, each with its own unique features. The website provides an abundance of information about each model as well as product videos. The goal of the SEBO usability test is to evaluate how easy it is for a user to learn about the vacuums, purchase accessories, and find a retailer.

The test was conducted using the current SEBO.us website on Chrome and was recorded using QuickTime Player. All participants have shopped online and own at least one vacuum. A total of three participants were evaluated, and before the test began, a series of questions were asked to understand their level of computer use and to gain background information. Each test was performed in the participants' own homes.

PARTICIPANT 1

- Female, 38 years old
- Hair Dresser, Spend 4+ hours a week online.
- Most frequented websites include Pinterest, Walmart, ShopRite, Amazon, and Target.
- Time to complete testing: 19 minutes

PARTICIPANT 2

- Male, 46 years old
- Personal Trainer, Spends 20+ hours a week online.
- Most frequented websites include News sites, social media, and personal training websites.
- Time to complete testing: 19 minutes

PARTICIPANT 3

- Female, 41 years old.
- Resource Manager, Spend 45+ hours a week online
- Most frequented websites include work websites and Social Media.
- Time to complete testing: 13 minutes

Results

All participants completed the tasks in under 20 minutes and had varying opinions about the website. They understood the site was for SEBO vacuums and that they could learn more about the products.

TIME TO COMPLETE TASK IN MINUTES / COMPLETION RATES

Participant	Task 1	Task 2	Task 3	Task 4	Task 5
1	7:15	:30	1:58	:56	:28
2	4:36	:53	3:01	1:00	1:52
3	2:36	:14	2:28	:24	:40
Mean Completion Time	4:49	:32	2:29	:46	1:00
Completion Rate	100%	100%	100%	100%	100%

TASK RATING MEAN

Participant	Task 1	Task 2	Task 3	Task 4	Task 5
1	1	1	5	1	1
2	5	3	5	2	4
3	2	1	5	3	4
Totals	8	5	15	6	9
Mean Task Rating	2.66	1.66	5	2	3

Level of difficulty	Ranking
Easy	1
Ok	2
Challenging	3
Difficult	4
Very Difficult	5

Analysis

Task 1

You are in the market for a new vacuum cleaner. A friend of yours recommends the brand SEBO but you don't know anything about them. Review several options, and place one in the cart.

PARTICIPANT RESPONSE

Deciding on which vacuum to select was difficult for 66% of participants. They were unable to figure out the differences between each model and felt there was an overwhelming amount of information on the product page. All participants seemed unsure of where to start their vacuum purchasing task. One participant wanted to watch the videos while a second participant made her selection based solely on the vacuum's pattern. All participants felt there needed to be a way to understand the difference between each model and 2 of the 3 wanted the ability to compare models.

While trying to learn more about the different models, some participants became stuck on the word "boost." They did not understand what that meant for a vacuum or why there was a large price difference. Lastly, the ladies wanted color options and one was disappointed that the model she wanted only had white.

Task 2

Your friend told you about a SEBO Felix vacuum she really likes. You would like to see it in action, but she lives far away. You go on the site to see if there are some videos that show how it performs. Find SEBO Felix video.

PARTICIPANT RESPONSE

Finding a product video was more straightforward. One participant went right away to the video section on the home page while the other two went to the product page, then found the video under a 'video tab.'

Analysis

Task 3

You have decided to buy the canister vacuum, the Airbelt K2. But you also want to buy extra vacuum bags and a filter. Add the vacuum, bags, and filter to your shopping cart.

PARTICIPANT RESPONSE

All of the participants were unsure which vacuum bag and filter to select for the specified vacuum model. The name of the vacuum bags was “Filter Bag Box” and the filters were called “Filter Set,” all participants were very confused that the vacuum bags had the word “filter” in the name description. Participants were also able to choose the “Service Box” which contained both bags and filters. Each participant was unsure of their selection and made a guess. One participant stated: “I would just close out (of the website) and go somewhere else.” Everyone agreed there were too many confusing options and too much to read.

Task 4

You changed your mind, instead of buying online, you decided you would rather see the vacuum in person and speak with a salesperson. Find a store near you that sells SEBO vacuums.

PARTICIPANT RESPONSE

Participants were able to find the “Dealer Locator” button easily and successfully found their local SEBO shop. However, the map did not refresh after participants entered their zip code and clicked the “Find Now” button. Instead, there was an odd lag time before the map refreshed causing participant confusion.

Task 5

You have owned your SEBO vacuum for a few years now. Your dog bit the suction hose and ripped it. You now need a replacement. Find the replacement hose and add it to your shopping cart.

PARTICIPANT RESPONSE

Each participant found the replacement hose they needed. Interestingly, each went about it in different ways. One went to the Spare Parts button on the main navigation, a second went to Spare Parts in the left rail of the home page, and a third went to the product page first, then to the accessories.

Recommendations and Action Items

HOME PAGE

Change

- Create a focal point and simplify the page layout.
- The focal point must contain a strong call to action to help guide users in their shopping journey.
- Use more contrasting colors to help with visual interest and accessibility.

Justification

- While reviewing the home page, the participants felt the site was monochromatic and simplistic while having “too much going on” and “too much text.” They were unsure of where to start their vacuum selection; none selected the main rotating image and opted for the navigation buttons or product videos.

PRODUCT PAGES

Change

- Combine product pages on the main SEBO website with the product pages on the eCommerce website.

Justification

- When a user clicked on a vacuum to purchase, a new browser tab opened and displayed a new product information page. Since the page layout was different, participants needed to reorient themselves to figure out what to do next.

PRODUCT PAGES CONT.

Recommendations & Action Items Continued

Change

- Create a Compare feature that allows users to see a list of the product benefits in an easy to read table format.

Justification

- Participants did not know how to distinguish one product from the next. They also were looking for this function to help them make a decision.

Change

- Create a way for users to input their vacuum needs, such as a product filter, so that the website can recommend vacuum models.

Justification

- One participant wanted to find a vacuum based on their floor type, a second only wanted to see upright vacuums. Allowing the user to filter products based on their needs and desires will help narrow down the products and help them feel less overwhelmed by the product selection process.

Change

- Give each vacuum and accessory a brief description and make sure it is written in plain language

Justification

- Participants were not able to quickly identify the differences between models. They saw price differences but did not know why one model was more expensive than the other. Two thirds were also very confused by what the word “Boost” meant and none of the participants were able to easily distinguish what a “filter bag” was.
- One participant suggested showing only pieces of information, then when ready they can see more information. Participant 2 was very blatant and said the site was overwhelming and there was far too much information on a page.

Recommendations & Action Items Continued

Change

- Simplify the site navigation menu

Justification

- There are currently 14 buttons in the main navigation and the participants only used 4. Two thirds of participants went directly to the product pages to find more information. Buttons such as “How To Video ” were repeated throughout the homepage which added to the “overwhelming” nature of the site.

DEALER LOCATOR

Change

- Make sure there is no delay after a participant clicks the “Find Now” button. Or add a loading screen

Justification

- After entering their zip codes, each participant experienced an odd lag time where they felt they did not perform the task correctly. Often they repeatedly clicked the “Find Now” button thinking they made an error.

Conclusion

The SEBO website is filled with product and company information, yet participants could not distinguish between the vacuum models. One chose solely based on the “fun” pattern, a second chose based on the video she watched, and the third made a random selection wishing to leave the website.

The SEBO brand would benefit from a more streamlined website that guides its users in selecting a vacuum model. In addition, more concise product descriptions and using more familiar language would help educate users and increase their confidence in their vacuum selections.

Appendix

Usability Test Script

Script created using Steve Krug's Usability Test script from Rocket Surgery Made Easy

INTRODUCTION

(Laptop open with the browser window open to Google)

Hi, _____. My name is Ania Harrell, and I'm going to be walking you through this session today.

Before we begin, I have some information for you, and I'm going to read it to make sure that I cover everything.

You probably already have a good idea of why I asked you here, but let me go over it again briefly. I'm asking people to try using the SEBO website to see whether it works as intended. The session should take about 30-45 minutes

The first thing I want to make clear right away is that I'm testing the site, not you. You can't do anything wrong here. In fact, this is probably the one place today where you don't have to worry about making mistakes.

As you use the site, I'm going to ask you as much as possible to try to think out loud: to say what you're looking at, what you're trying to do, and what you're thinking. This will be a big help.

Also, please don't worry that you're going to hurt my feelings. This is to improve the site, so I need to hear your honest reactions.

If you have any questions as we go along, just ask them. I may not be able to answer them right away, since I'm interested in how people do when they don't have someone sitting next to them to help. But if you still have any questions when we're done I'll try to answer them then. And if you need to take a break at any point, just let me know.

You may have noticed the computer is set to record. With your permission, I'm going to record what happens on the screen and our conversation. The recording will only be used to help me figure out how to improve the site, and it won't be seen by anyone else except maybe a snippet to my professor. And it helps because I don't have to take as many notes.

If you would, I'm going to ask you to sign a simple permission form. It just says that we have your permission to record you and that the recording will only be seen by the people working on the project.

(Present participant with recording permission form and pen. Start screen recording)

Do you have any questions so far?

QUESTIONS

OK. Before we look at the site, I'd like to ask you just a few quick questions.

- First, what's your occupation? What do you do all day?
- Roughly how many hours a week altogether—just a rough estimate—would you say you spend using the Internet, including Web browsing and email, at work and at home?
- What kinds of sites (work and personal) are you looking at when you browse the Web?
- Do you have any favorite Web sites?

Usability Test Script

HOME PAGE TOUR

OK, great. We're done with the questions, and we can start looking at things.
(open SEBU.us home page)

First, I'm going to ask you to look at this page and tell me what you make of it: what strikes you about it, whose site you think it is, what you can do here, and what it's for. Just look around and do a little narrative. You can scroll if you want to, but don't click on anything yet.

(give participants 3-4 minutes to browse, maybe remind them to think out loud)

TASKS

Thanks. Now I'm going to ask you to try doing some specific tasks. I'm going to read each one out loud and give you a printed copy. I'm also going to ask you to do these tasks without using Search. We'll learn a lot more about how well the site works that way. And again, as much as possible, it will help us if you can try to think out loud as you go along.

(Hand participant one task at a time and read each out loud. Let the participant try and figure it out on their own or until there is no value being produced or the participant becomes frustrated. Continue with each task or until time runs out)

Task 1

You are in the market for a new vacuum cleaner. A friend of yours recommends the brand SEBO but you don't know anything about them. Review several options, and place one in the cart.

Task 2

Your friend told you about a SEBO Felix vacuum she really likes. You would like to see it in action but she lives far away. You go on the site to see if there are some videos that show how it performs. Find SEBO Felix video

Task 3

You have decided to buy the canister vacuum, the Airbelt K2. But you also want to buy extra vacuum bags and a filter. Add the vacuum, bags, and filter to your shopping cart.

Task 4

You changed your mind, instead of buying online, you decided you would rather see the vacuum in person and speak with a salesperson. Find a store near you that sells SEBO vacuums.

Task 5

You have owned your SEBO Felix vacuum for a few years now. Your dog bit the suction hose and ripped it. You now need a replacement. Find the replacement hose and add it to your shopping cart.

PROBING

Thanks, that was very helpful.
Can you rate each task by difficulty level from 1-5? 1 means the task was easy and 5 means it was challenging.

WRAPPING UP

Do you have any questions for me, now that we're done?
(give participants incentive, stop screen recording, and save file)