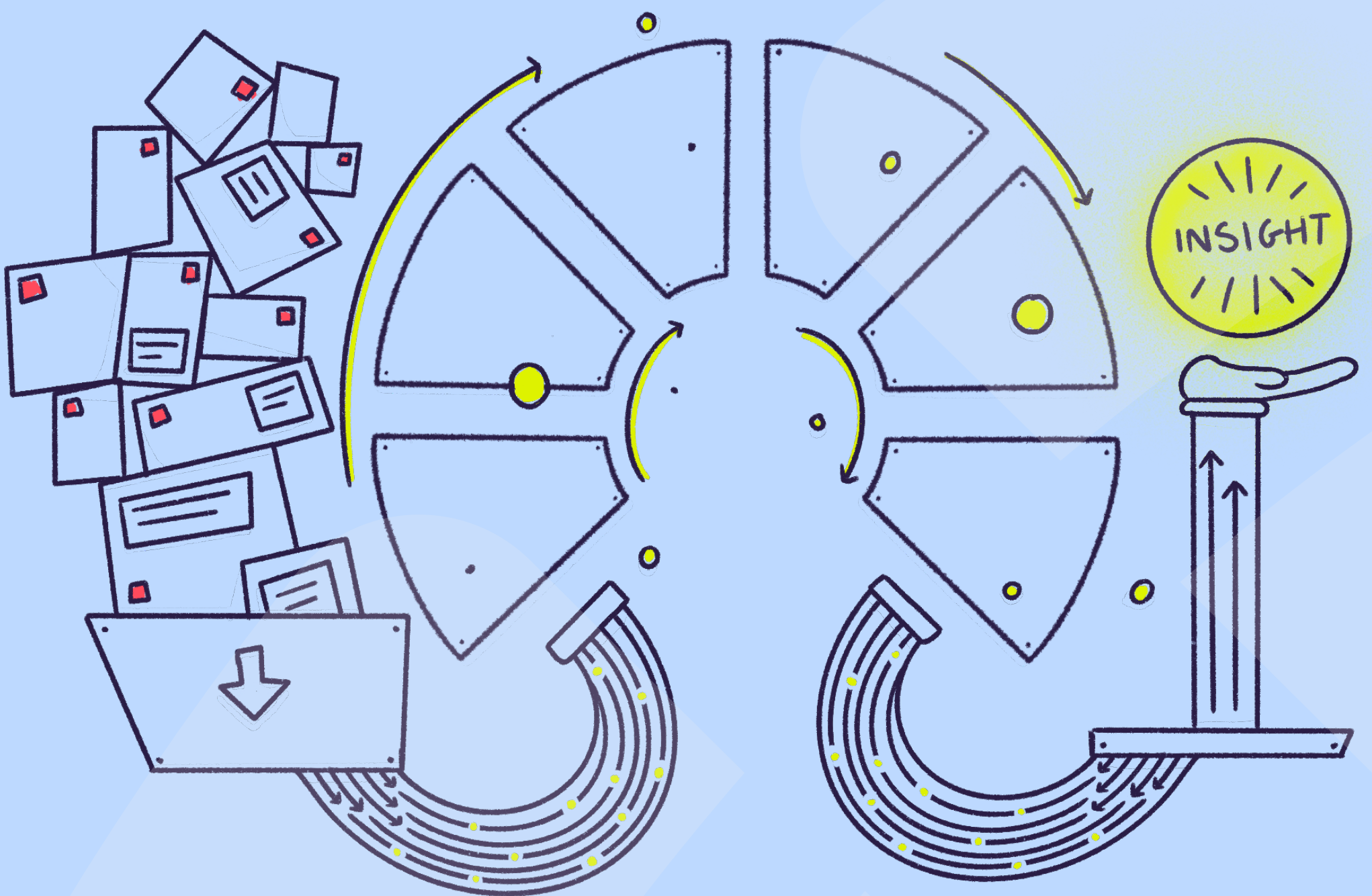# How to Design
And Analyse Surveys

INSIGHT

Contents

Chapter 1: The Purpose and Importance of Surveys

- Dive into the why behind surveys and how they help you scale CX and reduce churn

Chapter 2: The Anatomy of Surveys

- Learn more about the key variables that comprise surveys , how and where to ask for feedback, and how to design the perfect survey for your specific customer base

Chapter 3: How To Analyse Survey Data

- Understand how to analyse survey data, how to interpret results and make sure you have the right data, and lastly, the many different methods of analysis

Chapter I

The Purpose and Importance of Surveys

Why Send Surveys?

Decision-making in business is rooted in dealing with incomplete information. It hinders a company's ability to be data-driven as well as to miss key elements to optimise their strategies and operations. Needless to say, these effects can be incredibly costly.

Nevertheless, that's where survey's add value. Surveys allow you to cover your blindspots and keep on top of your company's data, resulting in a more efficient operation and saving you money in the long run.
When you send out a well designed survey to your customers it will reveal an array of insights on different sections of the customer experience. Insights that can provide direct actionable feedback that you use to improve your business. By giving customers a voice you reveal trends about your customers that would have remained unknown to you and your team.

Companies that listen to their customers grow faster because it reveals the story about how a product met their customers requirements. There is no better and more reliable source of knowledge about the quality of your than survey feedback.

Unlock The 'Why' Behind The Score

Metrics such as Revenue, NPS and CSAT only tell part of the story. Your NPS has dropped 5 points. Can you explain in detail why it's dropped?

NPS surveys allow customers to leave open ended feedback and often mention multiple categories that touch upon different business functions. Hidden within the feedback is customer sentiment about exactly how they feel and most often, customers talk about things that matter most to them in either a positive or negative manner.

The open ended feedback provides extra insight into why a score is the value it is enhancing your customer feedback loop by providing actionable takeaway points to improve your CX further. Examining raw verbatim data can help you spot the crucial but hard to detect customer pain points. Without revealing the why behind the score you will harm the discovery of game changing insights that are affecting the customer's experience.

Scale Customer Experience

Carrying out customer interviews is a valuable research method, but as you grow and scale, it will be difficult to find insights in a systematic way across different customer touchpoints that is representative of your customer base. By sending online surveys, you can gather feedback from a large sample size about a product.

Surveys allow you to see where you're doing well and where you should focus more effort. It will enable you to create customer profiles and identify tendencies. Most of all, it gives you an edge by providing a better sense of what customers really want.

With the right tools, you can streamline the analysis of survey feedback at scale, empowering you to analyse thousands of unstructured text feedback, analysing themes mentioned, deducing core drivers of satisfaction and loyalty.

Reduce Customer Churn
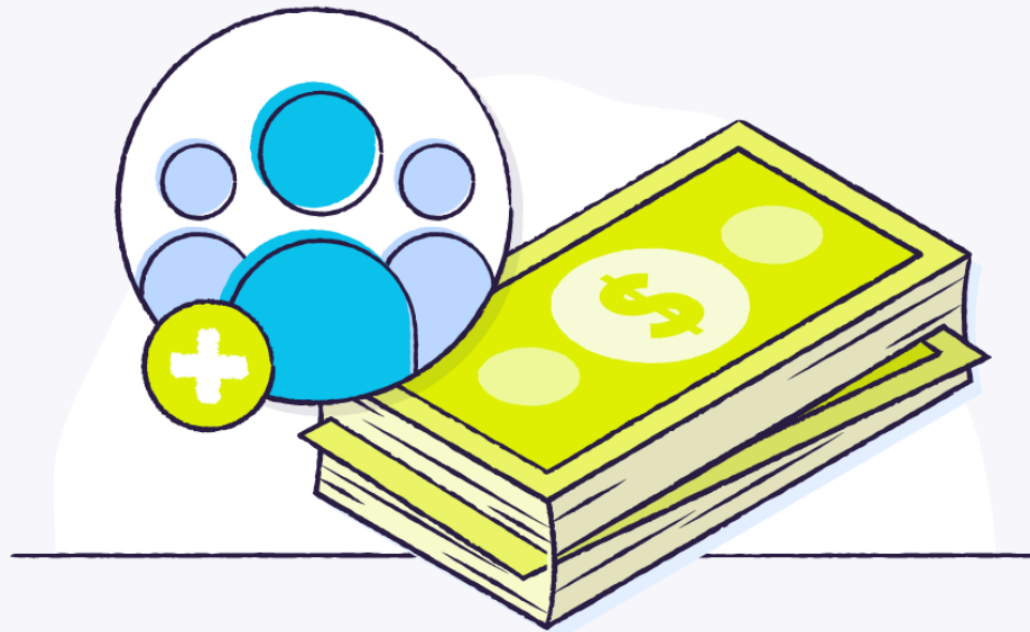
Reducing customer churn is essential, as it can **cost up to 25 times more to gain a new customer** than to keep an existing customer.

Anyone who is working on a customer-facing initiative, whether it's a Product Manager or UX Researcher can never bet on keeping existing customers as a sure thing. In highly competitive markets, customers churn as soon as your product performance dips. Customers churn for many reasons, and almost all of them are avoidable by acting on feedback.

Listening to customer feedback is one of the best ways to determine whether customers feel they are getting the service they deserve, where the mark is being missed, and how loyal they are likely to be.

Reduce Negative Reviews

Every company has a large online presence that expands beyond their control. Think back to a time when you decided against a purchase because the reviews were off-putting. Social proof holds tremendous weight when customers assess whether to try and buy a product.

By proactively capturing customer feedback with Surveys, it provides a way for customers to share negative feedback without telling the world. By acting on feedback and listening to customers, you're more likely to get positive feedback on review sites aiding the acquisition of new customers.

Boost Customer Acquisition

The great thing about listening to customer feedback in surveys is that when you act on the feedback you'll begin to see continuous improvement in customer satisfaction. The greater your customer experience the more likely users will share positive comments with their communities and advocate for your product or service in the future.

Chapter 2

The Anatomy of Surveys
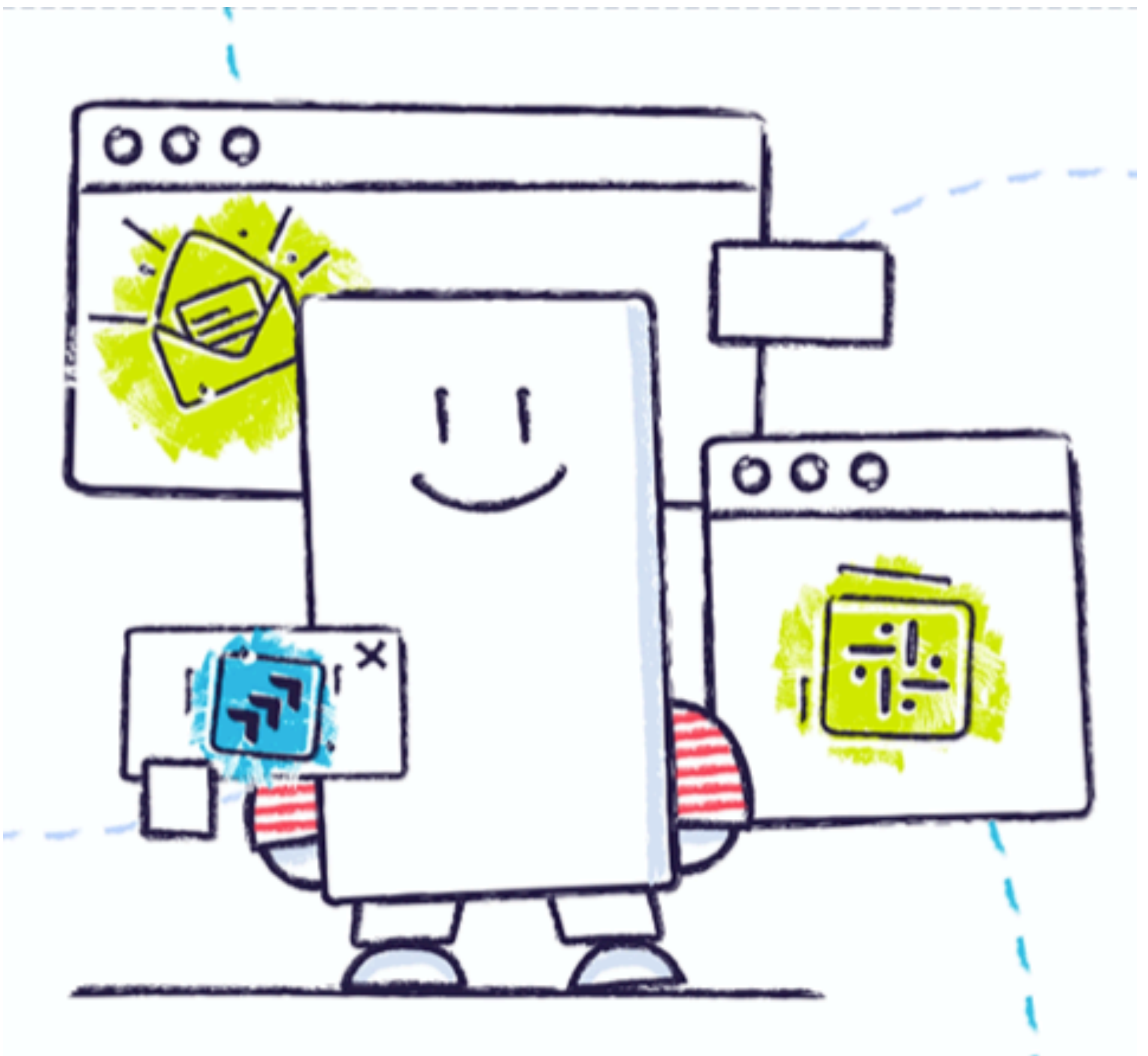
Designing Your Survey

By now, we've understood the purpose and importance of surveys, and the value of a great survey program can bring to your business. It's now time to get started with building your survey.

When you first start out running a customer feedback survey seems simple enough; you come up with a few questions, blast them out to everyone on your email lists, and get a bunch of data points to work with.

Though that process covers the basics, it's a lot more difficult when you're trying to make sure that the data you get is useful. This means data that is unskewed, unbiased, and that you can draw meaningful conclusions from.

To design a customer experience (CX) survey, you need to think like a researcher. If you don't take the proper precautions in crafting your survey questions, you risk misunderstanding how your customers feel.

Part 1: Key Survey Variables

Though there are countless variables you could be measuring in your surveys, most of them can be categorized into the following two types. The intersection of these two types of variables is usually where the most valuable insights come from.

1. Demographic Data

Demographic data encompasses the specific characteristics of a given population. Examples of demographic data include: age, gender, location, income, and language

... along with many other traits that can be used to define a set of respondents. For example, you could find that women aged 50+ give the most positive feedback for a certain product, and therefore shift your marketing tactics to target this type of audience with ads pushing that product.

2. Psychographic Data

Psychographic data can be a little more difficult to pin down, as it is typically qualitative vs demographic data which is quantitative. Psychographic data includes a person's opinions, feelings, and interests about different things in the world, and can be used to determine how they will respond to products and marketing efforts. Two people may have identical demographic characteristics but very different psychographics, meaning they probably shouldn't be placed in the same customer segment.

PART 2: How to Collect Survey Data

Without reliable data, we are unable to make good decisions as to how we should act to improve our customer's experience. The survey itself is a microcosm of how they experience our respective businesses. If we are not thoughtful with its design, we send the wrong message about how we conduct our general affairs. Therefore, we outline below the best practices we have observed over the years about how to gather survey data effectively, assuring it's value and accuracy.

1. How to Ask for Feedback

The first component in gathering accurate survey data is to formulate your questions in a specific way. We break down the key things to think about ahead of time:

Consistent Metrics: You will want to use consistent methods for measuring responses across your surveys. This goes for both surveys separated by time and by segment. For example, a survey sent out six months ago to men ages 20 - 30 should have similar metrics as a survey sent out one year ago to men aged 40+. This way, you can track changes over time and across different touchpoints.

Different Descriptors: Following up on the previous point, you'll obviously need to word your survey questions differently depending on who you're asking and what you're asking them about. The important thing is to make sure that each question you ask can be boiled down to reveal the same consistent metrics across your data.

Numerical Scales: Whenever possible, respondents should be able to answer your question using some sort of scale vs a "yes or no" or "thumbs up/thumbs down" response. This

could take the form of a 1 - 10 ranking, a "strongly agree to strongly disagree" scale, or anything else that makes sense. When it comes down to it, binary responses like "yes or no" don't provide you very much insight, where numerical scales allow for greater depth and analysis.

Freeform vs Multiple-Choice Surveys: Using freeform or multiple-choice answers depends on the insights you are looking to gain. In general, free form questions offer more insight on the product and customer experience. Many respondents won't be motivated enough to answer a long form multiple choice service to fully explain their thoughts. It's better to let the user explain what's on their mind using Open-ended questions, when implemented correctly, allow you to capture a much richer level of insight than multiple choice surveys whilst dramatically reducing the overall length of surveys.

Open vs Closed Questions: When asking for free form feedback, the question you ask should be open-ended, unless you have a very specific reason to ask a closed-ended question. This is because you risk shoe-horning your respondents into giving feedback that may not be accurate. For example, an open question such as "Please

tell us about your experience" allows for a wide variety of responses, vs a closed question such as "What did you enjoy about your experience?" This closed-ended question assumes that the respondent did enjoy their experience, which may not actually be the case. It's important to note that these types of questions will also need to be coded so that they match the metrics of all your other questions and can be compared equally.

Other Common Pitfalls: In addition to the points above, there are a number of other traps you can fall into when structuring your survey that could lead to response bias. These include: asking leading questions, surveys that are too long, over-surveying people, and starting with an already-biased audience. (For more information on response bias see section 2.5)

2. Where to Ask for Feedback

The first step when implementing a successful survey is to make it as easy as possible for customers to give you feedback. Use customer journey mapping to identify every touchpoint so that you're clear on what you're measuring and where. You'll start to uncover the key drivers of your customer experience and determine how they affect critical business metrics like revenue, customer lifetime value (CLV) or churn.

Here are a some of the proven ways we recommend asking for customer feedback

- Pop up surveys or small widgets embedded on your web pages will make it easy for customers to get in touch with you. It shouldn't be hard for customers to leave feedback on your site or product.

- Email is a simple yet focused way of collecting valuable feedback. Study by Forbes says email is one of the popular ways to engage customers. Email should be simple yet focused to encourage customers to take your desired conversion action.

- Social media polls conducted across main social media platforms engage customers informally through easy questions displayed promptly after the customer votes.

- Video chat customer feedback method helps to get authentic feedback in real time by face to face interaction with the customer.

- Live chat is becoming a predominant customer feedback channel and gaining more preference because it is the best way to ask customer feedback through rating the customer service.

PART 3: Designing a Great Customer Feedback Survey

Keep the objective in mind always:

The whole point of the survey is, first and foremost, to get a response.

Therefore, your surveys should be quick and easy to complete. If it takes anything longer than 2 minutes, expect a low turnout. More importantly, your sample will probably be biased and the customers who do finish the survey, will feel less excited about your product by the end.

Ultimately, poorly executed feedback setups do more harm than good. Low quality data leaves companies with little insight into customer experiences and customers feeling ignored. It shouldn't be like this. Customers should be able to tell you about their experiences in their own words. Companies with a relentless focus on this gain better insights into customer behaviour and make better decisions.

Take the following two examples:

Survey A

1 On a scale of 1-10, how would you rate the holiday? *

○ ○ ○ ○ ○ ○ ○ ○ ○ ○
1 2 3 4 5 6 7 8 9 10

2 Why did you give it a _____?

Your comments will be incredibly valuable to us.

3 On a scale of 1-10, how would you rate the accomodation? *

○ ○ ○ ○ ○ ○ ○ ○ ○ ○
1 2 3 4 5 6 7 8 9 10

4 Why did you give it a _____?

Your comments will be incredibly valuable to us.

5 On a scale of 1-10, how would you rate the catering? *

○ ○ ○ ○ ○ ○ ○ ○ ○ ○
1 2 3 4 5 6 7 8 9 10

6 Why did you give it a _____?

Your comments will be incredibly valuable to us.

7 On a scale of 1-10, how would you rate the website? *

○ ○ ○ ○ ○ ○ ○ ○ ○ ○
1 2 3 4 5 6 7 8 9 10

8 Why did you give it a _____?

Your comments will be incredibly valuable to us.

9 On a scale of 1-10, how would you rate the brochure? *

○ ○ ○ ○ ○ ○ ○ ○ ○ ○
1 2 3 4 5 6 7 8 9 10

14

Survey B

hf holidays
better walking altogether
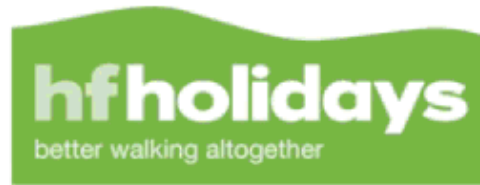
Could you spare a moment to tell us about your recent experience with HF Holidays? Our survey only takes 30 seconds. We'd be really grateful.

How did you rate the service on the phone when booking your holiday?

| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |

Poor   Very good

Thanks, Steve. Do you have any thoughts on how we could improve our service?

We read every single comment

Submit   or press ENTER

15

Which one of the following do you think is most likely to achieve the objective of getting a response?

You guessed it! Survey B, of course.

By keeping it short and sweet, customers are more likely to take the opportunity to give you their feedback in their own words and mention the most important things about their trip. Using the latest advances in deep learning we can have the machine automatically analyse customer verbatims. This will give you an amazingly rich data set that you can analyse to your heart's content, observing sentiment and theme trends to uncover why customers feel certain factors impact their customer experience.

Furthermore, a bitesize approach has been scientifically proven to have tremendous effects. It reduces friction which helps people go through a motion with ease and far less stress.

The shorter your survey can be – without sacrificing the essential feedback you need to obtain – the better. Research shows that the longer a customer survey is, the less time people will spend answering each question, meaning quality decreases.

Ask For Feedback Immediately

Furthermore, to generate a return on the time and effort spent designing a survey, it's critical to ask for feedback immediately.

Survey response rates increase when you ask for feedback right after the goods or services have been delivered. Why? Because feedback collected within 24 hours of delivery is more accurate than data collected two weeks or a month later.

People have terrible memories, so waiting too long on sending out your survey invitation could compromise the integrity of your data.

If they don't reply the first time, don't interpret as a signal to give up. You can set up reminder emails in your survey software to send follow-ups so you can boost survey completion rates in your next market research campaign.

Asking The Right Questions

If you're struggling to boost your survey response rate then you need to make the survey respondents that end up in your database count.

One of the best ways to ensure that you collect quality data is to take a look at your survey design. Do your existing questions provide actionable data?

Focus on questions that help you measure performance and offer a path toward improvement. For example, instead of asking, "How was your experience with our support team?" try, "How satisfied were you with our team's response time?" This introduces one variable that you can later work on improving.

If you have a certain business metric you're trying to improve stay focused on a singular goal when creating your survey questions. If it's reducing operation costs and you're trying to reduce support expenses, ask specific questions about that one component of your business. Think speed, quality, convenience, etc.

If you're trying to find out more about your customers then consider asking direct open ended question.

What did we do that you like best?

What could we have done differently to improve your customer experience?

Moreover, the key to asking the right questions is making the survey as personalised as possible.

Personalisation is a core part of today's customer experience landscape, and using information that you already know about your respondents can work well in your favour, adding warmth and humanity to a sometimes clinical process.

Your surveys should be set up in a way that engages the audience, with clear questions, an attractive design, and even a dash of your brand's personality.

Sending a personalised email invitation with a unique subject line will help generate engagement with your customers and invite more replies. Here is an example: 'Hey Jessica! We hope you love your new jeans. Mind if we ask you a few questions about your shopping experience?' Taking this more personal approach will invite the shopper to engage much more than if they were greeted with a value-taking "Dear, Customer—please fill out a short survey regarding your purchase on June 11th." type of message.

Make It Worth Their While:

Finally, and perhaps most importantly, we must generate the right incentive to get customers to respond to our surveys.

As Dr. Robert B. Cialdini argued and illustrated in his timeless book, *Influence: The Psychology of Persuasion*, incentives are scientifically proven to govern peoples' behaviours as well as the fact that humans have a biological inclination to reciprocate. Therefore, by giving value when asking for someone, we have a higher probability of getting not only a reply, but a good one at that.

The heart of the survey is at the beginning, where we might begin by offering incentives to get more responses. But it's critical to understand that incentives will vary by type of audience.

A few examples you might try:

Gift card: Consider offering a discount code upon completing a survey. This works for brands that offer a subscription service (i.e., 15% off next month's order) or e-commerce (complete the survey for 20% off your next purchase).

Charitable Raffles: If you're working with executives or those making large but infrequent purchases, it might be a good incentive to offer making a charitable contribution in their name or donating to a charity of their choice. In such cases, a discount usually doesn't apply. Charitable donations work best if you're surveying a group whose mission or values corresponds with those of your own brand.

Run a Lottery: Ask your customers to complete a survey in exchange for an entry into a prize draw—think a shopping spree at your online store, a trip, or a big ticket item.

Share the Survey Results: Sharing the survey results works best if you're in a position where you're something of an industry leader—i.e. you work in a tech company, data analytics, or something along those lines where you have the resources to put together a valuable report your audience will find useful.

PART 4: How To Avoid Response Bias

What is Response Bias?

Response bias is anything that causes survey respondents to give inaccurate results. Respondents could answer questions inaccurately for a number of reasons; maybe they found your questions confusing or wanted to portray themselves in a more flattering light through their answers.

Main Causes of Response Bias

1. Leading Questions, AKA Acquiescence Bias

Example Q: "Would you say we did a good job with our new product rollout?" A: Yes or No

This question is subtly leading the respondent to acquiesce, or agree, with the implication that they are satisfied with the new product rollout. A better way to phrase this would be "How do you feel about our product rollout?" and provide several options to choose from.

2. Unflattering Results, AKA Social Desirability Bias

Example Q: How many cigarettes do you smoke per day? A: 1-2, 3-4, 5-6, 7+

Respondents might incorrectly choose a lower number because they feel that's a more socially-acceptable answer, and therefore they won't be judged as harshly. In order to combat social desirability bias, make sure you stress to participants that the survey is completely anonymous.

Main Causes of Response Bias

In an effort to invert the problem, here are our 7 deadly sins when it comes to safeguarding your surveys against response bias:

1. Being Verbose and Using Language Your Customers Don't Understand

Survey respondents won't be able to give you accurate results if they can't understand what you're asking them. Make sure questions are simple and straightforward, with no hidden meanings or unnecessary descriptions. It's best to use short, common words and phrases to make sure your questions are understood correctly.

Pro Tip: Run your questions through a content analyzer and make sure the reading level is no higher than a high school level.

2. Leading Customers To A Specific Answer

As we discussed in the leading questions section, this is one of the most common ways to produce response bias in your surveys. To avoid this, make sure you are structuring your questions as openly as possible without any unnecessary adjectives. Put yourself in your customers' shoes - would you feel comfortable replying "no," or is the question pressuring you to say "yes?" Be sure to randomize answers as well to avoid priming.

Pro Tip: Utilizing questions such as "how do you feel about…" with a range of answers is typically more accurate than a "yes or no" question when it comes to opinion questions.

3. Consider The Knowledge Level Of Your Audience

Along with making sure the language you use is easy to understand, you should also think about any background information needed. This all depends on the audience you are surveying - for example, college students studying business and entrepreneurship will have a better understanding of the startup landscape than the average customer who receives your survey in an email.

Pro Tip: Empathy is the key here. Imagine yourself in your audience's place, with none of the background knowledge you have now. Would the questions you're asking make sense with that level of information?

4. Not Providing the Necessary Background Information

To add on to the previous point, sometimes providing just a bit of context is all that is needed to make sure you avoid response bias. If the topic you're researching requires some political, historical, or other contextual knowledge, including a paragraph or two of background information along with the survey question can be a good way to ensure that your audience is all on the same page.

Pro Tip: Though a couple of paragraphs is fine to provide, it's important not to go overboard. Respondents aren't going to want to read through a page of information before answering, and text that is too long will likely lead to people choosing incorrect responses to finish the survey more quickly.

5. Not Targetting The Correct Audience

If you're looking to gather data about a specific type of customer, you'll need to make sure that you're tailoring your questions to that audience and ensuring that your survey is reaching them through the right channels. For example, if you're gathering data about how users feel about your app's onboarding instructions, you won't want to send the survey to people who have been active users of the app for years as they likely won't remember the onboarding from so long ago.

You'll also want to avoid solely relying on volunteer participants in order to combat non-response and voluntary response bias.

Pro Tip: It can be helpful to build personas for your survey audiences to think about what makes them tick and where they can best be reached. If you're looking to target older customers, for example, you won't want to try to find them on Instagram.

6. Not Providing An Out for Respondents

Sometimes one of your survey questions won't apply to a specific respondent, so it's best practice to provide an out as one of the answer choices.

Otherwise, your results could be skewed as people have no choice but to choose a response that doesn't actually apply to them. For example, if you're a makeup brand surveying users on their favorite types of products, you should offer an "I don't wear makeup" option along with the other choices.

Pro Tip: It's important to watch for extreme response bias here, as you could get users choosing the "out" option for every question just to get through the survey faster.

7. Not Personalising and Strategically Structuring Your Survey

A commonly overlooked form of response bias comes from surveys without a coherent structure, where surveys end up being a loose collection of "nice to knows". The manner in which a survey is structured (order of questions) can have a massive impact on the results gathers and the insights that follow. Therefore, one should always keep in mind whether the order of the questions make sense and to also give the respondent a good survey experience, which ensures the highest quality responses.

Take a look at the following infographic for a summary of these concepts and tips:

HOW TO IDENTIFY AND AVOID

RESPONSE BIAS

IN SURVEYS

Response bias causes survey participants to answer inaccurately, which skews data and makes meaningful analysis difficult for your business.

WHAT CAUSES RESPONSE BIAS?

1 Asking leading questions that imply a correct answer

2 Participants choosing answers that reflect better on themselves

3 Participants choosing the same answer for every question to finish faster

4 Priming participants based on context and question order

5 Participants trying to figure out the purpose of the survey

6 Relying only on volunteer respondents

Survey Checklist:

To take action based on your understanding of the main causes of response bias, that you can take with you and use to QA future customer surveys:

SURVEY RESPONSE BIAS
QA CHECKLIST

PROJECT NAME:

SURVEY OBJECTIVE:

- [ ] Are my questions brief and easy to understand? Are they no higher than a high school reading level?

- [ ] Are my questions free of unnecessary adjectives and leading language? Would a respondent feel comfortable choosing any option regardless of order?

- [ ] Does my audience have enough background knowledge to answer the questions accurately?

- [ ] If not, have I provided su f cient context for the question? Is the text brief and to the point?

- [ ] Am I surveying the right audience segment for my research? Am I looking for respondents in the right place?

- [ ] Am I relying on data from more than just volunteer respondents?

- [ ] For multiple-choice answers, have I provided an "out" for questions that don't apply to certain participants?

- [ ] Have I weeded out any obvious outliers based on extreme response bias and survey response time?

- [ ] Is my survey structured in a way that participants won't be able to gure out its purpose?

NOTES

Chapter 3

How To Analyse Survey Data

What is Survey Data Analysis?

Survey data analysis is the process of drawing conclusions from what you've gathered. Whether this is hard percentages, qualitative statements, or something in the middle, going through your data and identifying patterns can help you figure out wider takeaways for the general population the data represents.

For example, if you're a restaurant running a customer feedback survey and you notice a pattern of people complaining that their food delivery is cold, you'll probably be able to better understand why delivery orders have

Why Is it Important to Conduct Survey Analysis?

Survey analysis is important because it allows you to draw broader conclusions about your audience. You can't ask every single person what they think about your company and implement changes to suit every individual. Numbers on their own are meaningless, it's the trends and patterns you uncover that allow you to make meaningful decisions.

How to Analyze Survey Data

We've finally gotten through all the essential preparation for gathering survey data, so what do we do when we actually have it? Below are five simple steps that any team can take to make sure they're getting the most from their survey analysis.

1. What Do You Want To Know?

If you're running a feedback survey, you should at least have some idea of what you're hoping to get out of your data analysis.

Are you trying to find out why customers are leaving at a certain point in the customer journey, or which products appeal to a certain demographic?

Just like with any research project, you should come up with a set of research questions and a corresponding set of "theses" as answers to those questions. Then, you can investigate each "thesis" accordingly to either confirm or augment your understanding of that research question.

2. What do the Variables Tell You?

You're now in a position to ask questions of the data so it's now time to start to begin coding customer responses.
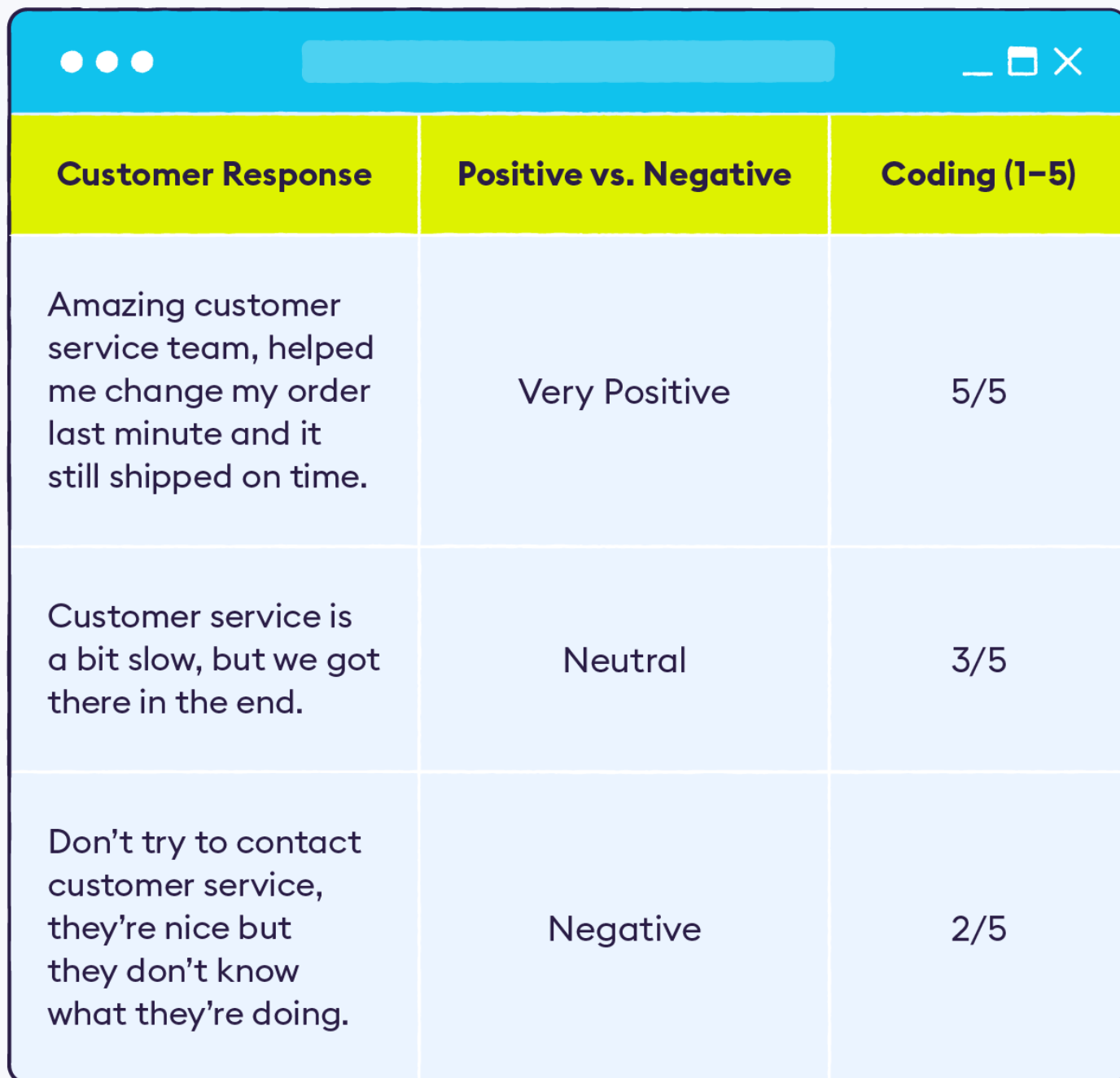
Coding Qualitative Data

When you start seeing customers responding to feedback you'll need to begin coding the responses. Coding will make the open ended feedback quantifiable and easier to share your results to the wider team.

When you have finished coding your responses you'll need to sort your codes into categories so you can detect consistent and overarching themes for your data. Most categories will live within themes painting a picture of what customers are saying about their experiences.

One caveat to consider is when the volumes of feedback begin to rise it can become a very manual process to code each response and categories into themes. The large bulk of the work can be streamlined using Text Analytics! (See section 3.3)

For an example of how to code survey data see our graphic on the next page.

Coding Qualitative Data

Customer Response	Positive vs. Negative	Coding (1–5)
Amazing customer service team, helped me change my order last minute and it still shipped on time.	Very Positive	5/5
Customer service is a bit slow, but we got there in the end.	Neutral	3/5
Don't try to contact customer service, they're nice but they don't know what they're doing.	Negative	2/5

Interpreting. Results

Now, it's time to dig in and see what the intersection of demographic and psychographic data points have to tell you. This is the fun part, where you get to see which cross-sections of people are reacting positively or negatively to your questions.

Just remember, each time you drill down further into the data, you're making the sample size smaller. Women aged 30-32, who make more than $50K/year and love horseback riding, are going to comprise a small percentage of your overall population. This is why it's so important to make sure each data set you're analyzing remains statistically significant (we'll get to that later).

For example, say you asked the question "What do you think of our new chatbot?"

- Right off the bat, you notice a large percentage of answers that are coded as negative responses.

- Then, you drill down into the negative responses, and find that 90% of the negative responders are age 65+.

- Looking even further, you see that 95% of negative respondents, age 65+, make an income of over $200K.

- After making sure that this slice of your data is still statistically significant, you can determine that rich older customers don't like your new chatbot.

Example of Survey Data Drill Down

Survey Question

What do you think of our new chatbot?

Negatively coded responses	2,600	52%
Positively coded responses	2,000	40%
Neutrally coded responses	400	8%
Total Respondents		5,000

Drill Down #1

Negative Responses by Age

65+	2,340	90%
40–64	156	6%
25–39	104	4%
Total Respondents		2,600

Drill Down #2

Negative Responses for 65+ by Income

$200K+	2,106	90%
$100K–199K	93	4%
Less than 100K	23	1%
Total Respondents		2,340

Conclusion

Wealthy, older customers **do not like your chatbot.**

Note that you will need to prove this number is statistically significant

Which Patterns Stand Out?

When you dig into the cross-sections of different variables, you will start seeing patterns. These demographic and psychographic patterns are the key to survey data analysis. When you identify an overall theme or trend within the data, and confirm that the sample you're looking at remains statistically significant, you can apply that pattern with reasonable confidence to the rest of your audience to draw broader conclusions.

You will want to start looking for patterns that relate to your original research questions and theses, to see if you're able to confirm any of your initial thoughts. After that, you can start looking for other high-level patterns, and then drill down further into each pattern to see if you can glean more in-depth insights. Here are a few questions you can use to get started if you're not quite sure what to look for in your big data set:

1. What themes stand out right away? For example, a larger-than-expected amount of negative or positive responses to something.

1. What are respondents saying about your new product/service?

2. Which responses are surprising you? Can you drill down further to figure out any patterns?

3. What is the most common positive feedback? What is the most common negative feedback?

4. How do the responses of young people compare to older people? From men to women? From wealthy to poor? From location to location?

Once you go through these questions and start identifying high-level themes within the data, you'll naturally be able to tell where you need to do more digging, or if you need to run another survey on a specific topic or demographic to gather more data.

3. Is the Data Reliable?

Statistical Significance

Using raw data with no refinement can lead you to make assumptions about your general customer population that may not actually be accurate. For that reason, it's essential to make sure that the data you've collected can be used to make assumptions about the wider population. This is known as statistical significance.

Demographic Mix

In addition to making sure your segment is statistically significant, you should also keep in mind the demographic spread of your surveyed sample and how it compares to your total customer population.

For example, if your customers are spread mostly equally across income levels, but your sample mainly includes households making six figures, your sample is obviously not going to be an accurate representation of the whole when it comes to income level.

Survey Question Quality

In addition to the points above, there are a number of other traps you can fall into when structuring your survey that could lead to biased responses. These include: asking leading questions, surveys that are too long, over-surveying people, and starting with an already-biased audience.

Visit our blog at chattermill.com/blog to checkout our guide onsurvey response bias to grab yourself a checklist on how to avoid response bias.

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4. Text Analytics

AI can simplify the data analysis
process by assigning complex sentiments
to feedback for easy coding.

★ ★ ★ ☆ ☆

*"I really **enjoyed my order** and it **arrived quickly**
but the **driver got lost** so I had to meet him."*

😃	**Product Attributes:**	Food Quality
😃	**Delivery Attributes:**	Speed
☹️	**Driver Attributes:**	Navigation

Text analytics is the process of taking written information and transforming it into data points that can be tracked and measured. The goal is to be able to extract quantitative data from unprocessed, qualitative information in order to discover patterns and trends within the text.

Artificial Intelligence allows this to be done automatically and at a much larger scale, as opposed to having humans sift through a similar amount of data.

Say a company launches a new product and wants to know how their users feel about it. They can gather online reviews, social media discussions, and feedback from surveys to find out. However, it would take human employees hours if not days to sift through all of this feedback and identify patterns. Instead, AI-backed textual analysis can sort through qualitative feedback to identify patterns and assign quantitative measurements that can be more easily compared.

For more information on how Text Analysis works read our guide at chattermill.com/text-analytics.

Understanding. Customer Feedback

Survey analysis can be enhanced by combining different forms of text analytics analysis to provide insight on how customers think and feel about their experiences related to your brand.

Topic Analysis

Topic analysis is another basic function of text analytics programs. By identifying keywords, an AI bot scans a piece of text and assigns it to a certain topic based on what it pulls as the text's main theme.

Sentiment Analysis

Sentiment tracking or sentiment analysis is a natural next step when it comes to extracting the most insightful data from qualitative text. Sentiment analysis is similar to topic classification, where the AI is taught to recognize certain key phrases within the text, and assigned rules for what to do with text that contains those key phrases.

Real World Example

The application of sentiment tracking is obvious; you need to know how your customers are feeling about your business. For example, a company offering meal box delivery services received an email reading "I'd unfortunately like to cancel my snack box subscription. The variety is great, but the beef jerky packs are disgusting." Using sentiment analysis, the AI will be able to classify the first part of the sentence as regretful ("unfortunately") and the second part as highly negative ("disgusting").

In addition to sentiment analysis, the AI will be able to categorize the feedback comment into categories such as 'subscription cancellation', 'food quality' & 'snack box. Enabling you to understand which topics and categories are generating negative and positive sentiment.

Since this company was able to compile and analyze these types of reviews at scale, they'll be able to identify if this is a wider trend and work to replace the beef jerky packs, along with offering discounts to regretful customers to perhaps entice them to come back.

5. What Do You Do With The Results?

You've carefully constructed your survey to avoid response bias, sent it out and gathered feedback, identified patterns and insights within the data and ensured it's statistically significant, so now what? Now, you compile your takeaways and generate hypotheses as to how you can address these issues. Your new hypotheses may or may not be the same as your original "theses." Maybe you were able to back up your original theories with data, or you discovered that the causes of a particular response are actually nothing like what you originally thought.

Collaborate and communicate across teams to validate your hypotheses. See if customer service reps have noticed similar complaints on client phone calls, or if social media managers deal with the same issues on their end. It's important for all teams to contribute to these ideas, as an obvious fix to one team may be problematic for another.

Once your teams are aligned, you can start implementing changes that address your survey feedback. Perhaps you found out that your younger audience found frequent email contact annoying, so you scale back your email marketing targeting that demographic.

Or maybe your data revealed that enterprise-level clients found a particular feature of your software difficult to use, so you work on updating that feature based on their feedback. After you've implemented these changes, you can re-survey your audience to see if your changes have been successful, and to learn about any other issues that need to be addressed.

Chattermill Lite

We have recently launched a new product, **Chattermill Lite**, which is designed for smaller teams and companies who need a real-time view of their CX as they grow.

Get up to 15,000 pieces of feedback analysed and full free access to Chattermill and all its features for three months.

Just email us at **maddy@chattermill.io** including the **promo code: SURVEY GUIDE**