



HOW INNOVATION WORKS

Your problems can become your biggest opportunities.

Every product and service is, in some way, connected to people. Understanding people's needs and requirements is the key to unlocking insights, but is not enough on its own. It must be coupled with a broader understanding of the business, product, and technical context (the product eco-system). Translating the outcomes of this research into value is the process of insights creation.

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GENERATING INSIGHTS THROUGH RESEARCH

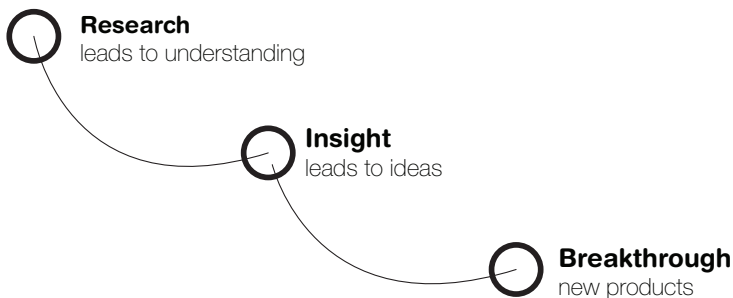
The perception of market research has been tarnished by lengthy surveys used to derive statistical results from large samples. However, the most effective and valuable market research is largely a qualitative process. It's a combination of creative and analytical methodologies, which when done correctly, can unlock enormous value for your business.

Research also reduces risks. By committing to undertake a period of research at the start of your development project, you have a far greater chance of creating a breakthrough product or service. Research provides a clear direction and focus for the project; it reduces u-turns and blind alleys, and can highlight potential barriers for technical and commercial success.

This document sets out an approach to plan for insights and to conduct research. It provides guiding principles for primary research and how to interpret this data into valuable insights. This is the culmination of many years of work in the field, learning from others, and learning from experience. It serves as a guide and not a rigid process.

Simple Research Loop

Our research approach is underpinned by a simple research loop:



Research is the data gathering phase and pulls in qualitative and quantitative information from a number of sources. This data and information needs to be synthesised so that it can be understood. Patterns, conflicts, and connections are made across the information to build an understanding of the full picture.

Insight is more likely gleaned based on this understanding and clarity. Some insights emerge with ease and others require coaxing through a series of techniques. Well articulated insights are the starting point for generating ideas for products and or services that will lead to breakthrough solutions.

This simple research loop forms the foundation of our research process and can be applied both at the start of projects and throughout the product development process.

The Broad Process

The process of turning research into insights is generalised by a four stage process:

Prepare	Capture	Understand	Interpret
Define the objective and plan the approach	Use a variety of approaches to capture the data	Pull together and make sense of the data	Translate the understanding into insights

How do you plan for insights?

Below is a framework to plan research activities. The key is to plan for insights and not just the gathering of research data. This framework is used to plan and clarify the scope and define the resources required to undertake the task at every stage. This information is captured in a one-page outline which is an effective communication tool for project stakeholders and provides clarity for the research team.

The synthesis and insight stages, where research is translated into insights, are energy intensive and often a challenging task. The work should be planned accordingly to allow sufficient time and resources, as this is where the value is created.

TABLE 1 INSIGHTS FRAMEWORK

OBJECTIVES

Objective	Hypothesis	Approach	Research	Synthesis	Insights
<i>1. Prepare</i>			<i>2. Capture</i>	<i>3. Understand</i>	<i>4. Interpret</i>
What are you trying to answer?	What do you know, or think you now know about the customers and the product eco-system?	What approaches will you use to conduct the research & capture the data?	What are the details of the research events? Outline and plan for where, when and who	How will you pull all the data together and make sense of it?	What do you need to translate the research into insights?

These are the questions you are trying to answer – what do you need to know at this point in the product development process? The objectives should be relative to the scope of the project – an objective that is too broad will be unachievable.

Define the different research streams and determine the objectives for each. For example you may have a customer research stream, a technical research stream, and a competing product or market research stream.

HYPOTHESES

Begin by recording your hypotheses for each research stream. Hypotheses are the things you know and the things you think you know. These hypotheses will drive the research to query whether they are right or wrong assumptions. The research process will essentially test your understanding of your customers and the product eco-system.

For customer research, build hypotheses around the following aspects of your customer's experience with the product or service you are researching:

- A. **Experience** – what is their current experience?
- B. **Tensions** – what are their frustrations?
- C. **Constraints** – what are they constrained by?
- D. **Expectations** – what do they expect?

During product development it is dangerous to assume these outcomes because this suggests you are proceeding with an unqualified opinion. Hypothesise, test, and understand instead.

APPROACH

Define the methodologies for how best to conduct the research. Selecting the most appropriate method(s) is important and is strongly related to the objective. Consider which is the best way to interrogate your hypotheses.

Research methods fall into four high level categories: observational, interviewing, surveying, and desk-top research. These can be deployed as separate methods or combined to gather more data. The details of each area are discussed in more detail in the Research section.

- A. **Observational research** – watching and recording people's behaviour in context;
- B. **Interviewing** – meeting and questioning people about a contextual topic, they may be experts or customers;
- C. **Surveying** – quantitative surveying can provide statistical metrics on predefined questions;
- D. **Desktop** – predominantly web-based research drawing information from a wide range of media.

In the planning phase, use the framework to outline the specific details of the research sessions – build the action plan. Think about how you will access these people? Do you need to recruit? What are the recruitment criteria? Consider where the research should be undertaken – location can provide valuable insights into people's natural (and most comfortable) environments. Where can you source technical and market information?

In this planning phase it is important to match the research to your project scope.

How much research is enough?

The amount of time, energy, and money that you invest in the research phase of a project should be proportionate to the degree of change that you are driving for. This affects the overall size and scope of the project. For fundamental breakthroughs, a large research base would be desirable to maximise your chances of uncovering new insights and developing breakthroughs. Conversely, even for small projects that perhaps are aimed at iterative development, a small targeted research phase will increase the project's success, if managed and used effectively.

How do you capture the research?

RESEARCH

This is the phase where you begin to capture the research data.

The most important question to answer during research is 'why'. Why is someone saying what they are? Why is that person behaving how they do? Why are the technical issues occurring? Probe and interrogate during research sessions to get to this point. Angle the questions and lines of inquiry to understand 'why'.

- A. **Observational research** – This can be a real situation or staged and should mostly relate to the end use of a product or service. Don't restrict the observations to the specific product – broaden the view and record other factors such as environment, conditions, related products, and people. These could all be relevant to innovative opportunities.
- B. **Interviewing** – Customer and expert interviews should be treated as conversations, allowing the flow of dialogue to organically evolve and build. Define the objectives and aim of the interview but steer away from a scripted list of interview questions. A script that's too tight can sometimes predetermine the scope and outcomes of the interview and will prevent the spontaneous moments that uncover an insight.
- C. **Surveying** – Develop an appropriate list of questions that can be accurately answered by someone if you are not there. When surveying it is important to capture a clear view of the demographic of the person on the survey. This will allow you to accurately correlate the answer to a specific market group.
- D. **Desktop** – It is important to retain full citations for information traceability. Be mindful to correctly scope this kind of research because the seemingly endless volumes of information on the web can be a sink for project time.

How do you translate the research into understanding?

SYNTHESIS

The goal of synthesis is to bring together and combine the information into a more connected whole and, by doing so, take a more holistic approach to assessment and analysis in order to make sense of the data you've gathered.

The research process will generate vast quantities of data and fragments of information that initially appear unrelated or disconnected and have to be interpreted and translated into useful information and valuable insights. This is often the most challenging part of the process but it holds the most value.

The synthesis stage makes sense of the masses of research data. It's both a qualitative and analytical process that involves bringing the information together, clustering common connected or relating items that influence each other and then filtering, grouping, and organising. Work in groups quickly after the capture stage to understand the data while it is fresh. The longer you leave it the more you'll lose the true meaning.

1. **Looking for patterns** – the human brain naturally likes to organise things. The vast sea of data can be overwhelming, so break it down to common themes. Look for crossovers and relationships between research outcomes and interpret these as insights.
2. **Cluster Common Themes** – group related information into common themes and contexts. Give each grouping a headline title or statement that clearly captures the combined core essential aspects of those items that are grouped within each cluster.
3. **Identify Problems & Forces** – look for the problems that the customers face. Distinguish problems from issues. Issues are generally considered friction but not significant enough to affect the customer. Look for what may be at the heart of the problem or issue and what might be causing it or contributing to it. Associate these as forces; with most things there is a combination of forces at play.
4. **Be visual** – use photos, develop diagrams, and sketch out connections. Often, by translating information into diagram form, better clarity is achieved.
5. **Synthesise as you go** – Create simple documents that capture the research as you go. By writing about your research findings while they are fresh, they not only become clearer, they can also be referred back to at a later date.
6. **Make the information accessible and useable** – Capture and summarise the information you gather from each research stream as you go so that it makes sense to the wider team. This will maximise the value you generate from the research. Not only does it give you the foundation for generating insights, it also gives you a wealth of information to refer back to and use during your project, and could even form the foundation for other projects.

How do you generate insights?

INTERPRETATION

When the information from one or more of your research streams is complete and recorded, it's time to start generating insights. This is best done in a small team session with all participants having a full understanding of the research findings prior to the session. The session will generate fundamental insights and ideas that can then be crafted into well articulated and framed insight statements.

Frame Insights & Point of View Statements

Once you have identified the underlying problems, issues, and forces, frame these by writing a succinct problem statement for each – normally there is more than one, but a single statement is ok. With each problem statement, frame a point of view statement. This is about capturing your belief and point of view of the problem, why it's really a problem, and then how this might be overcome. The goal here is to really cut to what you think is the core problem, the epicentre of it, and then frame your point of view for why it's a problem. This will help you take a position. It also helps you to move from 'information insights' to 'what if insights' to further close your knowledge gaps.

What If Insights

With your point of view statements, it's important to explore and define a series of 'what if' questions. 'What if' questions help you to look at the core problem differently and by doing so gain greater insight? With a series of 'what if' questions you can test your insights with more research. They will help you to better understand whether the core problems that you have identified are indeed accurate – your hypothesis of the problem – and whether your positioning point of view may offer new benefit.

Five things to remember

In our experience the keys to successfully implementing an insightful research process are:

1. Plan your research to generate insights.
2. Leave the office and get in to place.
3. Use a range of methods, both qualitative and quantitative.
4. Get a mix of perspectives: internal and external; customer and expert.
5. Document all findings in usable form to build a rich resource.

The Tools

Here is a selection of tools to use when conducting research:

1. **Framework templates** – use a series of templates to help plan and manage the research and ensure consistency across subjects and projects.
2. **Notebook** – don't underestimate analogue. Scribble notes, draw pictures, develop and review concepts real time.
3. **Evernote** – Digital tools such as Evernote are excellent for collection and management of research data. These can be used on the fly and can capture most mediums from photos to web clippings and notes. The mobile app means those follow-up thoughts are never lost on the journey home.
4. **Camera** – a camera is your best friend. It's the tool that will capture a thousand words. Be curious and record the moment – it's all part of the data-stream and if you don't see something in the scene someone else might back at base.
5. **Smart phone** – the miniature computer in your pocket holds most of the research tools: a camera (still and video), notes, data collection apps, an audio recorder, and the communication line back to the team to share-back immediately after the research.
6. **Spreadsheets** – can be a good start point for collecting and sorting information.
7. **Reports** – capturing and chunking information as you go will help keep the focus and provides a useful resource.

GUIDING PRINCIPLES OF CUSTOMER RESEARCH

Here is a list of guiding principles when conducting customer research:

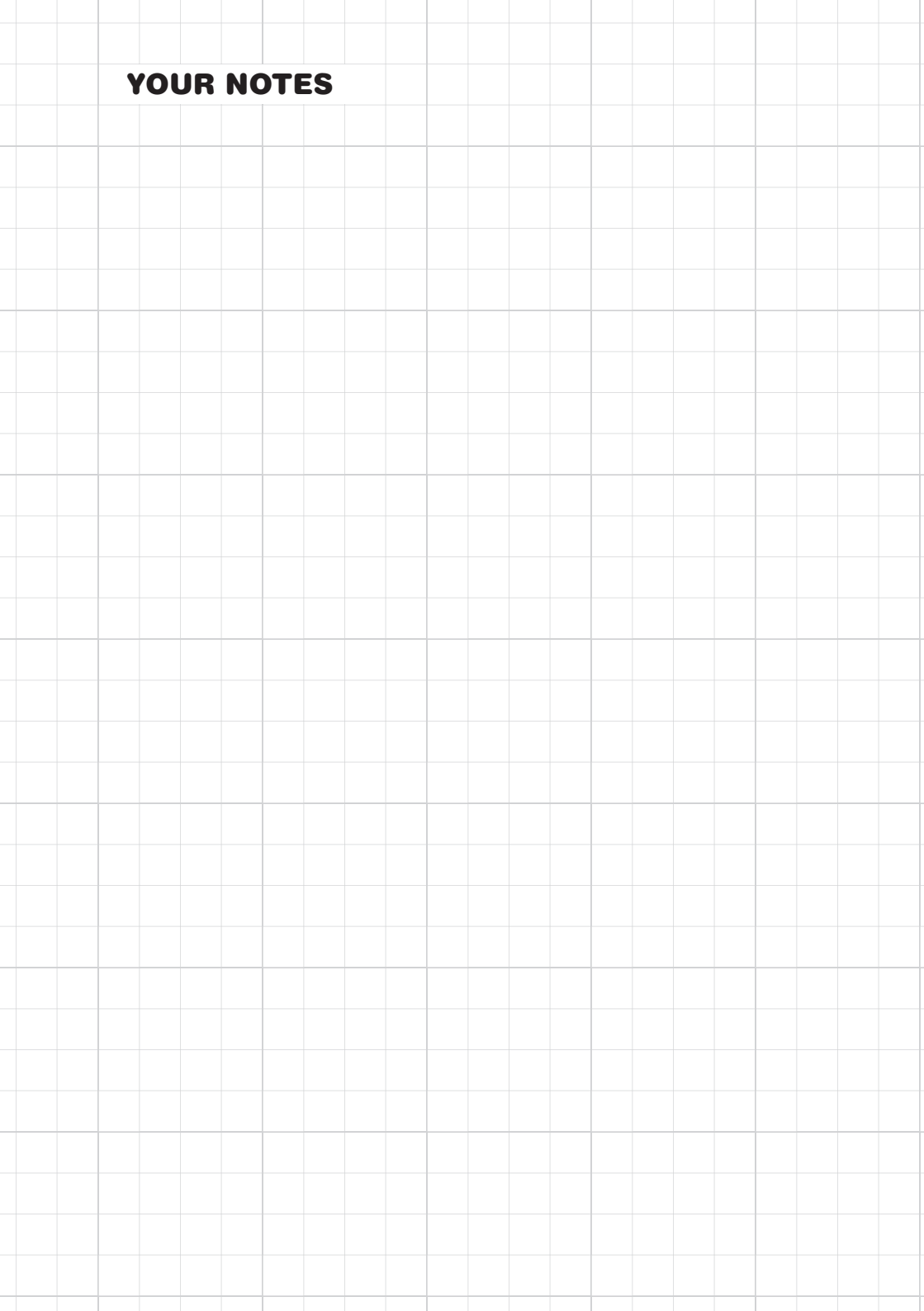
1. **Have empathy** – Find out why they do what they do, and what's important to them. Ask such questions openly – you may be surprised by the response. Ask them what they think their customer wants from them, and what they experienced the last time they used the type of product or service you are researching. What's their best experience and what's their worst - and why are these so? These questions help place you more in their position so you can try to see the world as they do. A good question is to ask: "If you had a million dollars or could do anything what would you do?" This normally receives a very passionate and emotive response that you can unpick a bit to draw conclusions as to why.
2. **Don't answer the questions** – People have a tendency to put an answer in another's mouth. Avoid doing this.
3. **Capture the moment** – Always carry a camera and photograph the interviewee (if they are willing), the location, and any other useful artefacts. These will jog your memory when it comes to the synthesis stage and putting a face to the research helps humanise the insights when delivering back to the wider team.
4. **Analyse the data when fresh** – Aim to extract the key pieces of information within the next 24 hours. Leaving some time for the data to settle and make sense in the mind is good, but don't let the data go stale.
5. **Analyse in groups** – Even though the research may have been undertaken by one person, aim to analyse the research in groups. Objective people in the process can interrogate the research and probe for further insights.
6. **Be prepared for change** – Insights will be uncovered through the research process that will change the course of subsequent research. Like most activities within product development; be prepared for this change. Prototype new hypotheses and test them in further research sessions.

Research Tips:

1. **Meet in context** – Try to meet and conduct the research in a relevant environment. A natural and applicable environment helps to spur conversation and ignite the stimulus.
2. **Break the ice** – A good approach is to open by asking people why they do what they do. This helps open things up. It sets a fun, relaxed tone which helps you cut through to what's important without too much restriction.
3. **Be conversational** – Plan the objectives of the interview but not necessarily the questions. Having a rigid set of questions will not allow for the organic flow of the conversation. Open the conversation up and the latent insights will be uncovered through on-the-fly inquisition and probing.

4. **Broaden the view** – During observational research, record as much data as possible beyond the specific subject matter. If researching in teams, have team members dedicated to record the environment, the conditions, and other people in the scene. Often what isn't there is just as important as what is – insights like these can be the catalyst for innovation.
5. **Always ask open questions** – Try the “tell me about...” technique. When you ask people a question they tend to default into the “well you know...” response behaviour (which often you don't know). If you use this technique, they may answer with more detail being more specific about a given story or point they make.
6. **Get to the 'Why' points by free diving** – Direct research and questioning to examine the deeper level of meaning as to what someone may be saying. Follow up statements with 'why' questions.
7. **Capture it as it's said** – The secret to good user and customer research is to capture what is said exactly how it is said. This is critical because it's easy to misinterpret what was actually said with how it was said. When you later enter the synthesis process, a possible new insight can end up miles from where it should be simply because it was reframed incorrectly at the source. Remember that reframing occurs later.
8. **Record and clarify** – It helps to recap on the key points at the end of the interview to clarify the information. Keep transcripts and don't be afraid to go back to clarify at a later point if required.
9. **Play the game of two halves: close the book but keep recording** – Most people act a certain way when they are on camera and a different way when they are off-line. A good tip is to intentionally stop and act like the session is finished or drawing to a close but keep a few gem questions held. Literally close your note book and then keep the conversation going and ask them the questions you have held back as you are departing. Normally people open up more after the fact. The last ten minutes of an interview as you're moving for the door are the most valuable because they feel things have finished and now you can just talk normally. It's in this state that people tell you really what's on their mind or what they really think.
10. **Share back in low resolution** – It's important that you always share back what you have done and what you've learnt quickly after each interview, visit, or survey with your broader team. This helps circulate the flow of information, almost as it happens, a bit like a live news feed. It helps the wider team become aware of common themes and points that they have been hearing, or perhaps not hearing, and become open to picking up information that may become insightful.

YOUR NOTES



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