



Market Research

*Why should you do it and how should you do it?
A practical guide from KTH Innovation*

Introduction

This guide is meant as a practical tool when you are investigating the market and state of the world around you. It will give you an insight into why this is important and how you can do it in an efficient way. The guide is full of sources to start out your explorations and tips on how to use them.

About KTH Innovation

Are you working or studying at KTH and you have an idea that you think is commercially interesting? Then KTH Innovation is your first stop on the way! We help students and researchers at KTH to commercialize results and ideas. KTH Innovation offers support with intellectual property issues, contracts, early stage financing, business development, etcetera. All services are free of charge and under confidentiality.

Find out more at www.kth.se/innovation

Email us at innovation@kth.se

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Why Do Market Research?

The world is constantly changing and new problems, new needs, and new solutions emerge in a never-ending circle. This process is both fuelled by and gives opportunities for new technologies and business ideas. Keeping track of this development is essential to be successful, whether it is in scientific research, innovation and product development, or business creation.

As you will see there is an abundance of information available today and the hardest part is to identify what is the most relevant for you. So let us start by discussing different reasons for why market research is important before we move on to how to actually do it efficiently.

Understand potential customers and markets

If you want someone to buy and/or use something that you have come up with you have to start by figuring out a few things about the world around you.

Most importantly you must find out what kind of needs the potential customers or users have and how your technology/idea could satisfy those needs. You also have to find out how big the need is for your customer. Is your solution “nice to have” (but they can live without it) or “need to have” (and they lay sleepless at night because of this unsatisfied need)? If you want someone to spend any money or effort on anything it had better satisfy a real and important need for them.

It is also good to find out more about which other solutions there are on the market (and under development) and which companies that provide them. These companies could be both your competitors and your potential collaborating partners. By doing some market research you can start to figure out which one is which.

Finally, it serves you well to find out the business logics of the particular line of business your technology/idea fits in. Who buys from whom? Is the buyer the same as the user? Which rules and regulations (written and unwritten) govern the business? How does the money flow? Who has the power?

The most important thing to remember is this: The better you understand your potential

user/customer, the better you can develop and communicate the benefits of your technology/idea.

Put your technology in perspective

Your investigation of the world around you should also include a technical component, because it is very useful to understand the technologies behind the products and services on the market. Comparing your technology to existing technologies serves to put it in perspective and to identify any advantages of your idea over existing ones. Doing this kind of market research early on in the innovation process can help focus the research and development of your technology. This is important to figure out at an early stage to make sure that you develop your invention in the right direction.

It is also important to make sure that you do not develop something that already exists. Not only is this a waste of time and money, it could also lead to an infringement of other people’s patents (or other intellectual property rights) which can be a very expensive affair. What you want to find out is a) if someone is solving a problem in exactly the same way that you are and b) if someone is solving the same problem but with another technology. If you have a solution that is different from existing ones and it seems commercially viable, you have a good opportunity to protect your idea.

Another reason why it could be of interest to take a look at the existing technologies is to get a feel for all the technologies out there that are not being used. Maybe you can figure out why some of them are not viable and avoid having the same thing happen to you.

Spark creativity

Inspiration and new ideas often come when you see how other people have done things and how they have thought. Indeed, you could argue that there are no new ideas, just new combinations of existing ones. How you combine old ideas into new ones, that is what creativity is about. So by looking at many other ideas you can spark your creativity to develop new things that you had not thought of before. It can be particularly interesting to take ideas from one area and use them in other applications.

Innovation and entrepreneurship is based on the ability to generate ideas and the ability to realise ideas. Creativity is required for both, and the more you can stimulate your creativity the higher the likelihood is that you will be successful.

Find opportunities

Innovation and entrepreneurship is about seizing opportunities. However, to seize the opportunities you first have to find them. This is why market

research is key to anyone interested in creating and developing new ideas. Knowing about the issues facing consumers and businesses is the first step towards creating commercially viable products and services.

In addition to opportunities for new ideas, market research can also help you find potential collaboration opportunities around inventions or ideas that you have.

Market Research Strategies

Below, you will find a great number of sources for market research. With this abundance of information at the tip of your fingers it is very important to have a strategy and a clear goal for your explorations of the state of the world. Your particular situation determines which strategy and sources that is most relevant to you. Remember this though: Never forget to talk to real people and real customers!

No matter how you choose to conduct your market research there is one important thing to remember: Document everything. Write down or copy every relevant piece of information you can gather. Understanding the market is very much like a jigsaw puzzle, it is a matter of piecing bits of information together to see the bigger picture. It is rare that you can get the full picture from just a few sources in a short period of time. Keep a project scrapbook (could be just a word document) where you collect the information you come across!

Basic idea

Have clear goals for what you want to achieve. Which information do you want to find? The process will be much more efficient and effective if you define clearly what you want to find out. The hard thing is not to find more information (there is always more information to be found), it is to be able to decide when you have enough. That requires clear goals.

Define a list of questions you need to answer. This is in itself an iterative process where new information might lead to new questions, but having clear questions makes the search more focused.

Decide which sources that are most relevant when answering your questions. If your main interest for instance, is in the technological state of the art then the patent literature is a good source to use. To get an overview of the market, market reports can often be useful.

To give two examples;

When it comes to new technologies and the market situation related to them, one approach (that is often used by professional market research companies) is to:

- Get an overview of the topic by using Wikipedia or some other general source.
- Start by looking at patents and to some extent scientific literature to identify competing technologies and companies with inventions in the same or other relevant technical fields.
- Then you can have a look at relevant market reports, trade organisations, and company listings to learn more about market trends and companies in the market.
- After this you can focus on individual companies and the key business information and key persons in them. This could be information relating to both economic performance and other things like innovation culture, previous co-operations, product launch frequency, etc.
- In a best case scenario you can also talk to the people you have identified.

When it comes to identifying or verifying a need and coming up with ways to address that need, one approach is to:

- Start by having a look at current product offerings related to the need.
- Then you can look at relevant market reports, trade organisations, and company listings to learn more about market trends and companies in the market.
- After this you can focus on individual companies and the key business information and key persons in them. This could be information relating to both economic performance and other things like innovation culture, previous co-operations, product launch frequency, etc.
- Finally you can look at patents and other more technical literature to identify technologies that are used to address the needs you have identified.

Statistics run in parallel with these and can be useful to gauge size of markets, demographics, etc.

Having talked about the value of the structured search I also want to touch on the value of the broad unstructured search for information. With this I mean a more or less random exploration, starting at one point and then jumping from one

piece of information to another merely based on what sparks your interest. If your goal is to spark creativity and come up with new solutions then the unstructured, curiosity driven approach should not be underestimated.

Sources

This document is meant as a practical guide on what to consider in market research and some resources that we at KTH Innovation believe can be useful when collecting information about the market outside the academic setting. Using these sources will give you a good starting point from which you can find your own favourites. KTH Innovation can also help you with relevant contacts from our network.

At KTH we have a very good library, **KTHB** (www.lib.kth.se), through which you can access a great number of publications and databases. Use that resource! Ask the librarians about how to find information on your particular topic, and search and browse in the databases that the library has access to. It is an invaluable source of information!

People, people, people (customers, customers, customers)

There is no better way of conducting market research than to talk to people with some connection to the field of your idea. These people could be potential customers, experts in the field, people working in companies active in the field, scientists, analysts, etc. Innovation and entrepreneurship is at the end of day about business, and business is about people. And what better way to understand people than to talk to them?

A major part of the market research efforts come down to identifying the right people to talk to and what to talk to them about. If you know which questions to ask and to whom you should address them you have come a very long way in your market research efforts. This applies in particular to cases when you are trying to figure out how your idea could fit in the market.

The more relevant information you have about the particular topic of interest before approaching someone, the more you can get out of each meeting. Being prepared is key for efficient information gathering.

We all have our natural networks around us that should not be overlooked. A researcher for example probably has a very good network of fellow scientists and in the informal discussions with them he or she can find out things not only about the academic world but also about the business world. This applies to all of us in our natural networks. Being curious and asking questions can get you very far in both academic and market research.

One group of people who can be very useful to talk to when it comes to investigating the potential of an invention from a commercial point of view is sales reps and retailers in the same or similar

business areas. These people can give you an idea of which details that are the selling points and what the different companies offer, which is very good information to have in the innovation process. Also, sales people are usually very fond of talking about their products so they make excellent information sources if you ask the right questions.

It may sound obvious, but it is worth stressing one more time: Meeting people and building personal relationships is the best way of getting to know things.

Trade fairs and conferences

Trade fairs and conferences are obvious places to find out about the latest developments in a technology field. Attending these events is often a time efficient way of gathering information since you can meet lots of people and see many ideas in a relatively short period of time.

Conferences and fairs can most easily be found through the trade organisations, trade magazines, and specialised websites for the particular technology field.

Even if you do not attend the conference or fair you can still get interesting information from it. By looking at the exhibitors (and if possible the attendants) at the event you can get a hint of which companies you should check out. Major fairs also generate news coverage that give an insight into what the main topics and trends were. Information like this can often be found on the website before or after the event.

Discussion groups, forums

Another way of coming in contact with people is through discussion groups or forums on the web. Through specialised websites (for example trade organisations or magazines) you can sometimes access online forums where you can take part of discussions about your field of interest. In forums like these you can listen in on the discussion in

the industry and also make your own comments and ask questions. For some industries or specializations it might be difficult to find relevant and active groups, but it is worth a try.

It could also be worthwhile posting questions in professional networks like [LinkedIn \(www.linkedin.com\)](http://www.linkedin.com) and similar, or even on social networking sites.

If the questions are asked in the right way you can get some feel for the market situation. It is important though to think about what you say and how you say it to get as good responses as possible without giving up sensitive information about your idea. Things like “does anyone know of a website that does xx?” could be a good start to tap into what other people know.

The usual rules of caution concerning spreading information in Internet forums obviously apply here too. This is an anonymous forum and should be treated as such.

Patent databases

Patent databases are very good places to look for information on the state of the art in technology and where the development is headed. Here you can find the latest inventions described in great detail, together with the companies and individuals filing the patent applications.

Patent applications are published 18 months after they are filed, so there is a time lag, but patents are often the first place where inventions are published. The technologies you find here are sometimes not even out on the market in a product yet, so it can be a good way of seeing which direction a technology field is headed (the real buzz around Apple’s iPhone was for example started when the patent application covering the technology was published). It is important to remember though that not all patents in the patent databases are in commercial use.

When you search in patent databases you can among other things:

- Find out if your idea is new or if someone else has already invented something similar. (see discussion on patentability below)
- Find out what other people have invented and more importantly what they have not invented
- Get inspiration for new ideas based on other inventions
- Find organisations that are active in a particular technology field
- Find out which individuals that are working on particular technologies.

The two last items are of particular interest from the market perspective. You can both get an idea of which organizations that are active in the relevant technology fields and find out which people within the organizations actually work in the field. This can be especially helpful if the aim is to identify possible collaborating partners and licensees.

So, patent databases can be a very good source for technical information. The bad part is that it can be notoriously difficult to find the relevant information because a) there are so many patents and b) patents are written in a complicated language, which makes it more difficult to find

them (often this is done on purpose). This requires a smart approach to searching, which you can read more about at the end of this document.

It is important to remember that using the sources and the tips in this document is not a substitute for a professional novelty search that you have to do before applying for a patent. It is however a good way of learning a great deal more about the technological state of the art and can thus be useful both for the day to day information gathering in the research and development work and to assess the market situation (competition, substitutes, players, etc.) for inventions.

Some links to patent databases:

Espacenet (The European Patent Office)

<http://ep.espacenet.com/> (free)

The US Patent and Trademark Office

www.uspto.gov/patft/index.html (free)

Derwent Innovations index

Free access through www.lib.kth.se

Scopus

Free access through www.lib.kth.se

Trade organisations, Trade magazines, Trade websites

A natural place to look for information on what's happening in a particular industry is trade magazines and websites of the relevant trade organisations. Here you can find news and company listings that can be useful when identifying trends, technology developments, and companies in the industry.

To find trade organisations you could start by browsing in the **Yellow Pages** (in Sweden either www.hitte.se or www.eniro.se) for trade organisations or search for it on the web.

A good place to start looking for trade magazines is in the library, where they have a wide selection in both printed and electronic form.

One good starting point for finding trade related websites is the **Alacra Wiki** (<http://alacrawiki.com>). In the top left-hand corner of the site you can find a Spotlight section where site users contribute

information and resources specific to a particular industry. Click the Alacra Spotlights link on the left-side navigation, then choose an industry. Each Spotlight gives a description of the industry with direct links to information resources where you can learn everything from industry financials to trends and issues.

Market reports and business intelligence firms

There are many companies specialised in providing market information through market reports. These reports are normally very expensive and for most people and companies this is not what you should spend your money on. They do have the advantage of collecting key information in one place, and since they often disclose some parts of the report to attract interest they can serve as a good starting point for gathering more information. The abstract can for example give important general information for the market analysis (e.g. general numbers on the market). The table of contents can also be very useful, for

example for segmentation of the market, to see which companies that are mentioned, and so on. Market reports thus provide a framework for further explorations.

Another piece of advice is to find market reports using one of the sources mentioned below and then search for the interesting reports on the internet. Write the name of the report surrounded

by quotation marks (so the name of the report is treated as a phrase) and then the publisher and click search. On the search results, you will most likely find other sites trying to sell you the same report. Sometimes though you can find an article that contains the contents of an expensive research report, and often all you need for planning are key statistics and data.

Good sources to start with are

MarketResearch.com (www.marketresearch.com)

Research and Markets (www.researchandmarkets.com)

Commercial Company Listings

One important goal of market research is often to find and learn more about companies operating in a particular market. These companies could be your potential competitors, partners or customers.

The mother of all company listings is the **Yellow Pages** (www.hitta.se or www.eniro.se), a resource that can be highly useful for identifying companies in different sectors. There are also other more detailed commercial company listings that you can consult. In these commercial listings you can find information about key persons in the company, key economic facts, and short descriptions of

the activities of the company. To access the full information you normally have to pay a fee, but some of these databases are available through the **KTH library** website (www.lib.kth.se). They often also have a free service with slightly less information that still might be useful.

One obvious thing to do when you have identified companies through these listings is to check them out more thoroughly on their company websites. The company databases also allow you to learn more about the companies' financial status and other facts relating to the companies.

Some examples of sources are:

Kompass

Access the full database through KTH library's website (www.lib.kth.se – e-resurser – databaser). Also on www.kompass.se

Kompass is one of the world's largest company databases. You can search for companies based on products or services, types of industry, location, company name, etc.

Affärsdata

Access the full database through KTH library's website (www.lib.kth.se – e-resurser – databaser). Also on www.ad.se

A very good database that provides business information on companies with operations in Sweden. It also includes a very good news archive. Read through the manual on how to use it first (in Swedish) to make sure that you can use the various search options.

Nordicnet

www.nordicnet.net

A database with information on companies and products in the Nordic countries. It also contains links to fairs, trade organizations, and industry portals.

Bolagsverket

www.bolagsverket.se

The Swedish registration office for companies. Requires a one-time registration fee of 500 kr to access the information.

In the company register (Näringslivsregistret) you can search for companies and download annual reports, articles of association, and other information that has to be registered with the office.

There is also a European Business Register where you can find the same information for companies in Europe.

US Securities and Exchange Commission

www.sec.gov/

The US agency that collects financial information from all public companies in the USA. They have an online tool, EDGAR, that you can use to find information on American and international companies operating in the USA. Read through the EDGAR tutorial to learn how to use this tool and what kind of financial information you can retrieve. This is a free service.

Company websites

The company website is one of the most important communication channels for a company. It is the window to the world, and naturally the company is presented in the most favourable way possible here. The information itself and also how a company chooses to present the information gives an idea of what kind of company it is, and also, importantly, how they want to be perceived. If you really need to check out a company you should not only look at the information on the website, but also on information you can get using the other sources mentioned here.

Sales material and product information

Looking at other companies' product offerings and unique selling points can provide an insight into what customers value and how you can differentiate yourself. Alternatively it can give you

an idea of what you should develop if you seek collaborations with a company.

Blogs

Blogs about a topic of interest can be highly useful to get an idea of what is going on in the market. Many blogs are personal, but there are also many blogs that are filled with industry market data and inside information and gossip. Some blogs are highly influential in their field and news, confirmed or unconfirmed, are often published in this medium first. All in all it is definitely worth finding relevant blogs to get up to date with the latest. You have to keep in mind that blogs most often express personal opinions, rumours, and gossip, and treat the information as such. However, this is often just as influential as the actual facts, so the right blogs can definitely be a valuable source of information.

Good places to start looking are:

Technorati

www.technorati.com

Technorati is the largest blog directory and search engine. Type in a search term in the search box and then you can choose to see results in blog posts, or blogs about the search word.

Google blog search (<http://blogsearch.google.com>) and **Ice rocket** (www.icerocket.com) are examples of other major blog search engines.

Knuff.se (www.knuff.se) and **Bloggsök** (www.bloggsok.se) are two Swedish blog search engines.

Wikipedia

<http://en.wikipedia.org/wiki>

Encyclopaedias can give general information on a topic of interest, and the online encyclopaedia Wikipedia is a very good one to use. Not only does it contain much information, but many of the entries also include relevant links and lists of organisations working in the field. Wikipedia is a great place to start to get an overview of a topic, especially if you are not an expert in the field. Wikipedia has sites in most languages, but the English one has the most information.

Statistics and facts

Many things in the world are described in numbers, numbers that are gathered in statistics databases. If you are looking for things that can be quantified (and most things related to business can to some extent), these databases are important sources. There are good sources for statistics both on a national and international level where much information can be gathered about society, business, technology, and the way we lead our lives. This information can be highly useful when assessing for instance the customer base for a product or how trends look in certain areas.

Statistical information can be useful both on its own and as a complement to market estimations from incomplete market data. There is an abundance of statistical information so the big challenge is to extract what is relevant for you in each particular case.

The website of **Statistiska Centralbyrån, SCB**, (www.scb.se) offers a comprehensive overview of Sweden in numbers. All kinds of statistics can be found here that can be useful in certain situations. Another very good source of information is **Ekonomifakta** (www.ekonomifakta.se) where they aggregate information from SCB and other organisations. Both these services are free.

European statistics can be found at **Eurostat** (<http://epp.eurostat.ec.eu.int>) which brings together statistical information on a broad range of indicators.

US statistics are available at www.census.gov

An example of a service that could be useful when you are interested in the size of particular

consumer groups is a service called **Safir Sigma** (www.safirsigma.infodata.se) This website offers the possibility to find the size of a consumer group based on some criteria that you can choose on the website. The site is in Swedish and relates to the Swedish market.

Other governmental organisations and trade organisations often also have statistics relating to their particular field of interest.

Press releases

Company press releases can give a good insight in the market situation and the activities of various companies. The main international services used are **PR Newswire** (www.prnewswire.com) and **Business Wire** (www.businesswire.com). On both sites it is possible to view the news by industry, sector, company, etc. and they also have other information like company profiles etc. A good Swedish press release and company information service is **Bolagsfakta** (www.bolagsfakta.se) where you can find both Swedish and international press releases and other information.

It is important to remember that press releases are sent out by the companies and are not objective or critically analysed. They serve the PR agenda of the companies. You have to read press releases with this in mind.

Public news

Public newspapers and magazines are of course also influential and highly relevant sources of information. The journalist's job is to write stories, interview people, analyse information, etc. and convey that to the public in a reasonably objective manner. Hence what you find in newspapers and magazines can have great impact on the market.

An easy way of finding articles relating to your area of interest is to look in the various databases available from the **KTH library** (www.lib.kth.se, in their e-database section). Relevant databases include:

Affärsdata
Mediarkivet
Presstext
Svenska dagstidningar online

People, people, people

After this overload of sources, primarily based on the internet, I once again want to stress the importance of asking questions to real people with knowledge of what you are interested in.

Novelty factor of the various sources

It is worth mentioning a few things about how “fresh” the information is in the various sources (generally speaking).

- Personal communication/first hand sources can be anything from “the first time anyone hears it” to very old news. Always consider the agenda of the person you get the information from and put it in context.
- Articles (new ideas, new discoveries, news) normally have a time lag ranging from a few months to a year or so.
- Patents (new inventions) are published 18 months after the application is filed and stay in the database forever.
- Reports and reviews (collations of articles and data) generally relate to information that is a year or more old.
- Printed books (text books, encyclopaedias) contain information that is generally considered to be established facts. This information is normally not as new as that from the other sources.

To Search and Read Patents.

Since the patent literature is a bit special in many ways it is worthwhile giving some hints to how to use this information source effectively. Remember, this does not substitute a professional novelty search that you should do before a potential patent application.

First of all, the patent databases mentioned here all have tutorials on how to use the search functions and what to look for. Use them!! They will save you lots of time and give higher quality results.

The most critical thing in a search of the patent literature is to use the right keywords in the search.

Time spent on figuring out relevant keywords is time well spent.

A good start is often to look in Wikipedia and make a general search on the web to get an overview of the topic and to find out if there are different names or descriptions for the same concept. You have to remember that there often are alternative spellings, alternative terms for the same thing, and other non-obvious terms that could be used in a patent application. The search engine only looks for the exact words you have written in the search box.

A good approach for finding keywords and structuring the search is to think of the invention in three parts:

- the problem that is being solved
- the technology that is used to solve it
- the combination of the problem and the solution.

Find a group of keywords relating to the problem, another group of keywords relating to the technological solution. Then you can use combinations of the two groups to narrow down the results to what is really close to what you are looking for.

When you have come up with keywords you can perform the search in a systematic fashion using the different words, alone and in combinations, and the patent classifications (see below). When you see the results you will quickly realise which words produce relevant and irrelevant results and you can fine tune the search accordingly. Document the searches (for example in a spreadsheet, a text document, or the “bookmarking” function in the database search function) to keep track of your progress.

Last but not least, use the patent classification system! All patent applications are put in a class relating to a technology field or application area. Browsing through this or using this as a criterion is a very powerful tool in the search for relevant patent literature.

How to read a patent application

Patent applications are normally long and written in a complicated language, which is why it is a good idea to read them selectively. How you read a patent application depends on why you are reading it, but there are some general guidelines that makes the reading more efficient.

- **The title and the abstract** provide an overview of what the invention is about. This is normally enough to sort between interesting and non interesting patent applications.
- To find out what the patent protection actually covers, the next step is to **read the claims**. It is the claims that decide what the patent protection covers, not the description.
- If the patent seems interesting the final thing is to read through **the description**. It is useful to remember that it normally starts with some background information about the field of the invention, then information about the invention, and finally the description of how to actually practise the invention. The description often includes a lot of information that is not explicitly covered in the claims.



About KTH Innovation

Are you working or studying at KTH and you have an idea that you think is commercially interesting? Then KTH Innovation is your first stop on the way! We help students and researchers at KTH to commercialize results and ideas. KTH Innovation offers support with intellectual property issues, contracts, early stage financing, business development, etcetera. All services are free of charge and under confidentiality.

Find out more at www.kth.se/innovation

Email us at innovation@kth.se