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Centre per a la Integració de la
Medicina i les Tecnologies Innovadores

Guide to design your Healthcare Business Model Canvas



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Guide to design your Healthcare Business Model Canvas:

An adapted Business Model Canvas for Healthcare products and a simple guide to develop it

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1. Acknowledgements

This guide was prepared based on the Healthcare Business Model Canvas and training materials created by CIMIT with whom CIMTI has a strategic alliance:



2. Introduction to the Healthcare Business Model Canvas

Do you know what a business Model Canvas is? Have you ever thought about the special needs of your healthcare solution? In this section we aim to introduce you the main ideas you need to know to start working in your Healthcare Business Model Canvas.

2.1. What is a Business Model?

A set of hypotheses about how an organization creates, delivers, and captures **value** from the activities of:

- **Creating and providing something:**
 - Designing and validating it,
 - Purchasing raw materials,
 - Manufacturing, and so on.
- **Selling something:**
 - Finding and reaching customers,
 - Transacting a sale,
 - Distributing the product,
 - Delivering the service,
 - Supporting users.

2.1.1. Examples of Business Models

Here you can find some examples of Business Models; more examples can be found here [“What Is a Business Model?”](#) at Harvard Business Review.

- **“Razor & Razorblade” or “Nespresso”:** The core product is priced for sale and uptake, while the real money is made on the consumable. This is designed to encourage consumption over time.
Example: Nespresso coffee machine and capsules.
- **“Risk-sharing agreements” (RSA):** Based on a deal between the provider and the buyer. Agreements are divided into financial-based and outcome-based.
Example: Pharma company with a drug in a hospital.
- **Freemium service:** Offer basic services for free and charge for a premium service. Revenue as subscription.
Example: LinkedIn.
- **Advertising-Supported:** A company that has an audience for creating content or service sells access to advertisers. Advertisers pay a fee for its advert. Difficult to make revenue.
Example: Television network.
- **Hardware-as-a-service (HaaS):** Giving access to hardware with the accompanying software, maintenance, installation, and upgrades. Revenue as subscription or Pay-per-use.
Example: Office laser printers.
- **Software-as-a-Service (SaaS):** Giving access to software through a digital interphase, such an app or a device. The software is licensed and centrally hosted. Revenue as subscription or Pay-per-use.
Example: Microsoft Office 365.
- **Data-as-a-Service (DaaS):** Data management as the core underlying asset. Services can be created on top of collected data, increasing the value of the model. Revenue as volume-based or data-type-based.
Example: Private cloud service.

In general, products follow a combination of different business models.

2.2. What is a Business Model Canvas?

It is a simple way to see an entire business model in one page. The Canvas main objective is to help companies move beyond product-centric thinking and towards **business model thinking**.

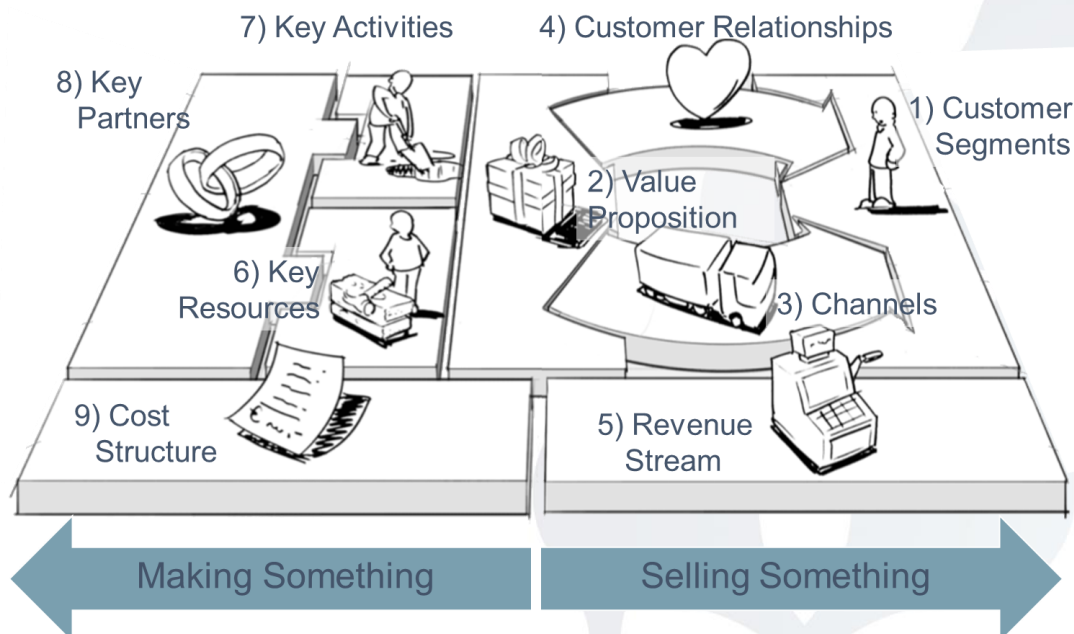

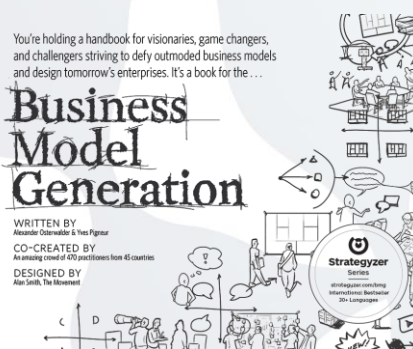


Figure 1. Business Model Canvas.

 To know more about the **Business Model Canvas**, you can check the book "*Business Model Generation*" by Alexander Osterwalder & Yves Pigneur.



2.3. Adapting the Business Model Canvas to the Healthcare Field

The healthcare field is a very particular one: innovations are often designed to improve life expectancy and quality of life, regulatory constraints are higher, impact and scalability are parameters usually searched by investors, timeframes are longer but also the potential benefits achieved, etc. Therefore, **your business model should be adapted to consider these specific characteristics** of this field.

It turns out that designing a Business Model in Healthcare is more challenging. This is mainly because **different stakeholders in healthcare have different roles and different decision-making or influencing power**, and you need all of them on board on your project considering all their different interests.

For example, to sell a project in healthcare you will need to convince the nurse or the physician with technical and clinical arguments, the hospital manager with economic arguments and the IT department (if your product will somehow use the hospital connectivity) arguing that your system is compatible. Thus, the traditional Business Model Canvas has been adapted to consider particularities of the Healthcare field.

The **Business Model Canvas in Healthcare** can be divided into four main parts:

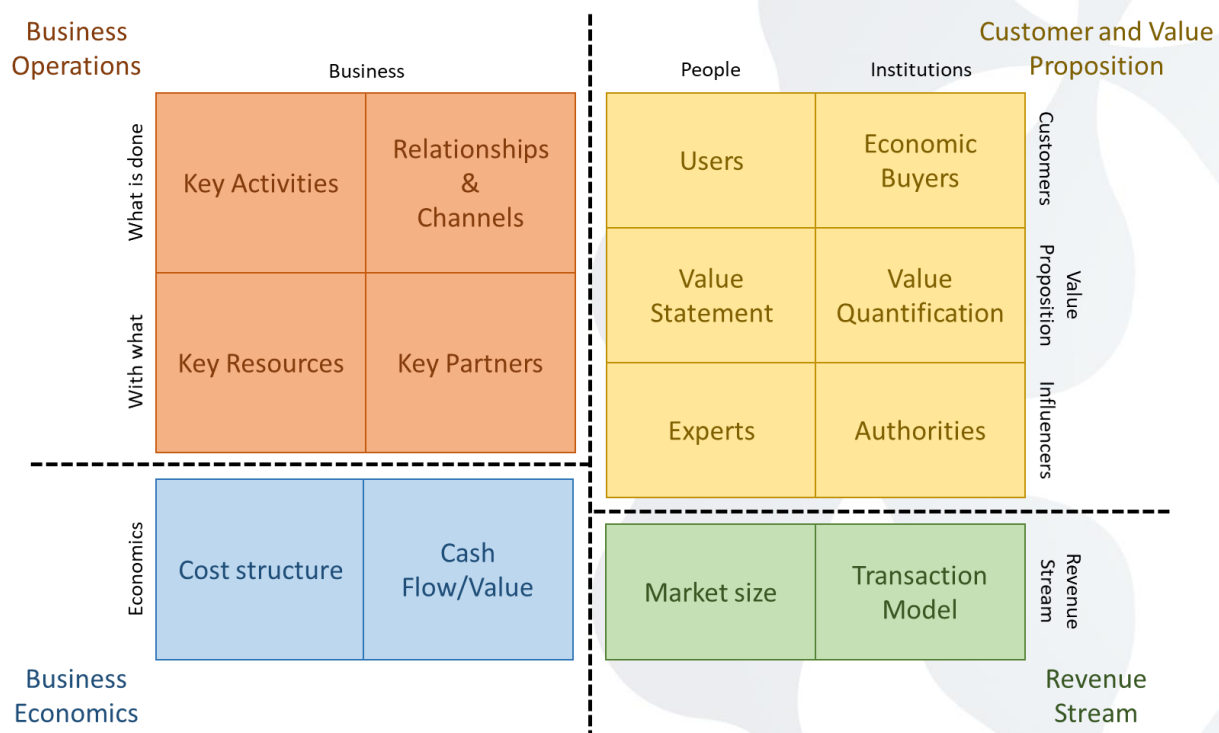


Figure 2. Main parts of the Business Model Canvas in Healthcare.

Each category contains a description to help you build your Business Model Canvas in Healthcare:

	Business	People	Institutions		
What is done	9) Key Activities The key things the business does to create and deliver the value proposition & support customers (core competencies)	12) Relationships & Channels The way in which you engage with customers and influencers to develop and maintain needed relationships and deliver the product/ service to users	1) Users <ul style="list-style-type: none">• Practitioners• Patients (?)	2) Economic Buyers <ul style="list-style-type: none">• Decisions Makers• Technical Buyers	Customers
	10) Key Resources The key assets the business controls (physical, financial, intellectual, human, etc.) that provides a competitive advantage	11) Key Partners The network of key suppliers, collaborators, service providers, etc. that help you develop and/or make your product or service	3) Value Statement <ul style="list-style-type: none">• Need/Job-to-be-done• Outcome Statement• Benefit Statement	4) Value Quantification <ul style="list-style-type: none">• Safety• Performance• Cost Savings	Proposition
With what			5) Experts <ul style="list-style-type: none">• Clinical Champions• Anti-Buyers• KOLs• Patients/Families	6) Authorities <ul style="list-style-type: none">• Payors• Regulators• Medical Boards• Patient Advocacy/ Groups	Influencers
	13) Cost structure The fixed and incremental costs to operate the business and deliver/support the solution	14) Cash Flow/Value <ul style="list-style-type: none">• Investor Economics• Cash Flow/Needs• Capital Needs• Profits Generated	7) Market size <ul style="list-style-type: none">• # of Procedures• # of Users• # of Institutions• Adoption Rate	8) Transaction Model <ul style="list-style-type: none">• Approved Use• Reimbursement• Pricing• Payment Terms	Revenue Stream
Economics					

Figure 3. Business Model Canvas in Healthcare.

Read the **3. Practical guide** section to fill each of these parts.

3. Practical guide

We aim to help you fill the Healthcare Business Model Canvas with this guide. Thus, you will find pieces of advice to fill each of the sections. We advise you to follow the order proposed when filling it:

3.1. Costumers and Value proposition

You first need to identify your customers because **your value proposition should be adapted to each customer segment**, i.e. the value proposition for your users (value statement) will be different than the for the economic buyers (value quantification).

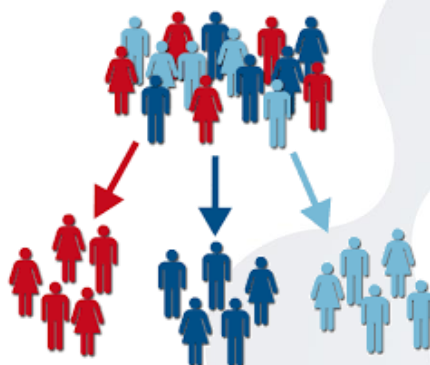


Figure 4. Identification of your customer segments.

3.1.1. Customers

You need to identify your customers segments. Explore and asses if:

- Their needs require and justify a distinct offer.
- They are reached through different Distribution Channels.
- They require different types of relationships.
- They have substantially different profitabilities.
- They are willing to pay for different aspects of the offer.

You need to listen and talk to as many people as possible in order to understand your customers and their needs. It is important to remember that **institutions do not buy things, people do**, either for their own use (user) or on behalf of their organization (economic buyer).

3.1.1.1. Users

Indicate the people that will directly use the innovation (practitioners, nurses, patients, etc.) and the reason why they will choose to use yours. **It's advisable to specify the person's name** (i.e. "John Smith") rather than entities in general.

3.1.1.2. Economic buyers

Indicate the name of the person who has economic power (will make the decision to buy your product, to pay you - i.e. the manager of the economic department). Do **make sure to know who these people are** (write their names) and why they are interested in buying your solution (understand the value you provide to your economic buyer). Examples of economic buyers are decision makers, technical buyers, among others.

3.1.2. Value proposition

A value proposition is a promise of value to be delivered and **reason why a potential customer should buy from you**. It explains how your solution addresses customers' needs - solving problems or improving their situation (relevancy), delivers specific benefits (quantified value), or tells the customer why they should buy from you and not from the competition (unique differentiation).

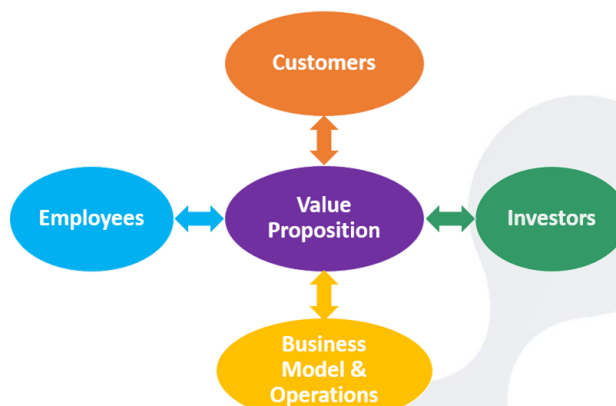


Figure 5. The value proposition is the core of what a business is and does.

Be careful not to confuse your value proposition with a slogan or a catch phrase, a positioning statement or a description of features (**features are not your value or benefits**):

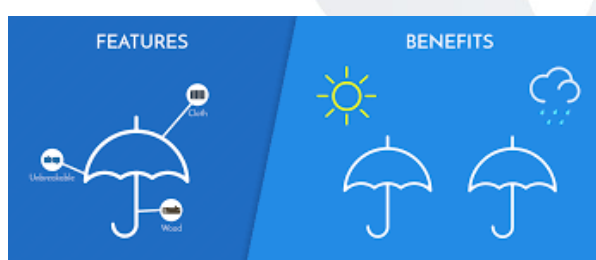


Figure 6. Difference between product features and benefits.

You need to prepare a value statement (to convince individuals - users) and a value quantification (to convince the institutions – economic buyers).

3.1.2.1. Value statement

Your value statement should focus on:

- **The Need/Job-to-be-Done:** What are the needs and wants of the target user? You must understand the progress a customer is trying to make in a particular circumstance. There are two aspects from the Job-to-be-Done:
 - Functional job aspects: the practical and objective user requirements.
 - Emotional job aspects: the subjective user requirements related to feelings and perception.
- **The Outcome Statement:** What are the **outcomes users choose as criteria in selecting a solution**? When characterizing these outcomes, be as quantifiable as possible.
- **The Benefit Statement:** Why will users want to use your solution? You must be able to determine why your product/service is the perfect fit for the customer's Job-to-be-Done. **Assess how your target solution compares to others** (strengths and weaknesses) and summarize why users will prefer your solution over the alternatives.

3.1.2.2. Value quantification

On the other hand, your value quantification should focus on the clinical and operational evidence for:

- Safety of your solution.
- Performance of your solution.
- Cost savings when using your solution.

It is recommended to **put a hard quantification number** i.e. “20% used in x will be decreased to y%”. It makes it easier to understand exactly how much money the institution is going to save (the economic buyer needs to see savings).

3.1.3. Influencers

Influencers are very important players in healthcare. You must spend time in knowing who your influencers are and talking to them. You also **need to identify who will “lose” with your solution** and will likely be an anti-buyer for your solution. Focus on engaging a lead user, as well. They will advocate for your solution.

3.1.3.1. Experts

Identify the experts in your field. Mention specific names of experts you need to be or already are in contact with:

- Clinical Champions.
- Anti-Buyers.
- Patients/Families.
- Key Opinion Leaders (KOLs).

When identifying KOLs it can be useful to ask 2-3 different seniors who are experts in the field, and you will quickly be pointed towards the KOLs.

You don't have to convince the KOLs, they convince themselves. So, **don't try to sell to them, ask for advice.**

3.1.3.2. Authorities

Identify the main regulatory bodies in your national system, your payors, medical boards, etc.

3.2. Revenue stream

Revenue will generate as soon as customers acquire the value proposition offered. You need to work on calculating your market size and on your transaction model. Knowing these aspects will be of **high importance when contacting potential investors.**

3.2.1. Market size

Consider the differences between these three different markets:

- **Addressable market (AM):** The total market potential for a product or service. It is calculated in annual transactions and can be found by research.
- **Target market (TM):** The portion of AM targeted by your products or services. This is considered a business decision.
- **Beachhead market:** The market initially **targeted for market entry** by a business. Success in this market leads to growing into TM.

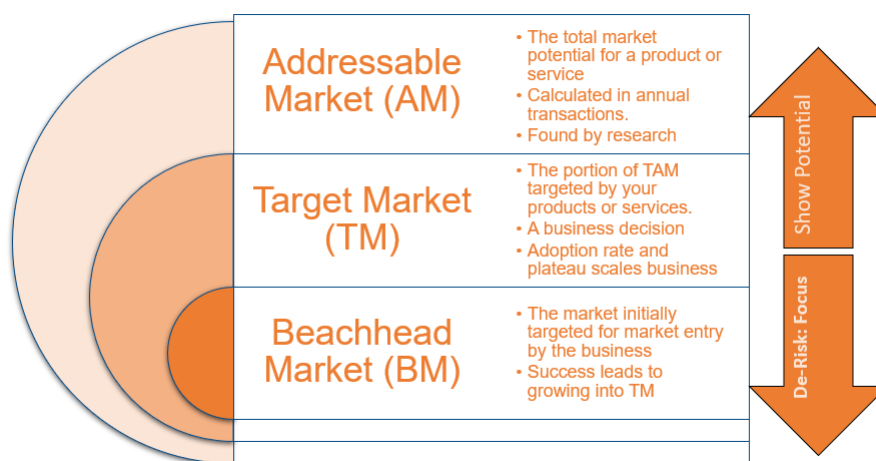


Figure 7. Three types of market.

There are two ways in which market size can be calculated:

- **Top down analysis:** based on the overall size of the market. Example: you know there are X particular procedures performed per year, and this translates into Y€ per year; you're going to capture Z% of that market, therefore, your market potential is Z% of Y€.
- **Bottom up analysis:** based on your projected price and the number of units sold. Example: you think you can sell X units at Y€ per unit, therefore, your market potential is X·Y€. This analysis forces you to understand who your buyer is, how many units you can sell, what price you think they can tolerate, and other aspects.

Ideally, you should do both and they should more-or-less match. People are **more likely to believe the bottom-up analysis**, but you can also check the top down analysis too. You have to be ready to defend the market size you present, so be realistic when calculating it. Furthermore, these values will vary over time, but beware of the “hockey stick curve” (which happens when a sharp increase occurs suddenly after a short period of quiescence).

The sentence “we will have a 10M € business if we only get 1% of this 10B € market” means you have not made the effort of calculating your market size and can be badly seen from the investor's point of view.

Rule of thumb:

- <\$200M market: probably can't support a stand-alone company and will not likely be venture funded.
- \$200M - \$500M market: could maybe support a company, and **that's where most companies are**.
- >\$500M market: can definitely support a start-up.

It's fine to start with a small market (i.e. beachhead market) and then expand. A trick for medical device companies is to look for multiple vertical applications that will allow them to expand the market size. You can do that through solution maturity, customer maturity, or both. Solution maturity means enhancing your solution to address more needs of the same user. Customer maturity means engaging other nearby market segments with similar needs.

3.2.2. Transaction model

There are different revenue methods and channels that companies should consider. You must define and consider:

- **The approved use** of your product/service.
- The different channels for gaining revenue.
- Ways to achieve reimbursement.
- **What pricing you will apply** to your product/service. You can start by checking your competition, if they have similar products to yours. Otherwise, there's a **technique called "Van Westendorp Questions"** that can help you establish the price to your solution. You need to ask the following questions to both users and economic buyers:
 - At what price would you say the solution would be a bargain (not expensive)?
 - At what price would you say the solution would be getting expensive, but you would still consider it (not a bargain)?
 - At what price would you say the solution would be too expensive to consider?
 - At what price would you say the solution would be too cheap, such that you would question whether it would work?

Then you plot the response rate (prices vs the cumulative percentage of responses). The spot when the "too cheap" and "not a bargain" cross, that's your lower price point. The spot when the "too expensive" and "not expensive" cross, that's your upper price point. **Any point between these two is considered in the acceptable price range.**

- The different payment terms you will need to establish.

3.3. Business operations

You then need to tackle very important aspects of the business operation part, specifically the key activities, key resources, key partners and key relationships and channels. All these aspects will be necessary to provide value to customers and make your business model work.

3.3.1. Key activities

Identify the **key things your business does to create and deliver the value proposition**, and to support and engage your customers and influencers. These are your core competencies.

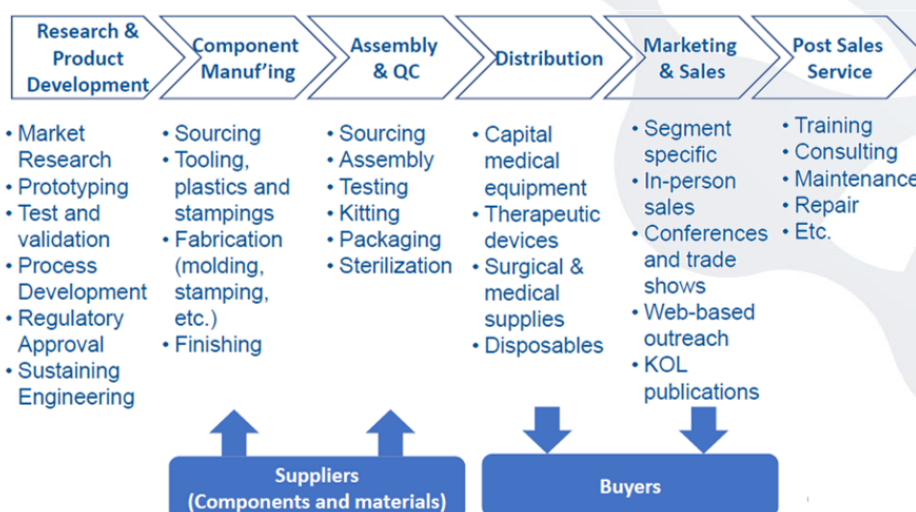


Figure 8. Value chain elements for your business.

Most early-stage start-ups are focused on the first elements of the value chain. However, successful start-ups think about all aspects from the beginning. The key activities and elements from the value chain will vary depending on your core competences and on your business model.

Your key activities should be aimed at the following core competences:

- **Relevance:** this will give your customers **something that strongly influences them to choose your product** or service and differentiate from your competitors.
- **Difficulty of imitation:** this will allow you to provide products/services that are **better than those of your competition**. You should continuously work to improve this skill.
- **Breadth of application:** the solution opens a good number of potential markets.

3.3.2. Key resources

These are the key assets the business controls (physical, financial, intellectual, or human) that provide a competitive advantage and are required to make a business model work. **Key resources can be owned, leased by a company, or acquired from a key partner.**

- **Physical assets** include office buildings, development labs, manufacturing facilities, vehicles, production equipment, training facilities, among others. These resources are what you need in order to execute your business. Some companies choose to outsource some key activities (clinical trials, manufacturing, etc.), but outsourcing can be difficult and expensive. You should keep some activities local.
- **Intellectual property (IP) include the intangible assets:** trade secrets / know-how, customer databases, patents, copyrights, contracts / partnerships, brand (even for some small companies), etc.
- Human resources are required in all enterprises, but **people are particularly prominent in knowledge-intensive Healthcare businesses:** advisors and board members, researchers with unique experience and expertise, sales people with a breadth of relationships, regulatory experts who know how to navigate complex submissions, etc.
- All businesses need **financial resources and/or financial guarantees**, such as cash, loans, lines of credit, convertible notes, revenues (boot strapping, grants, etc.), or stock option pool for hiring key employees. These will change with the maturity of your project and needs.

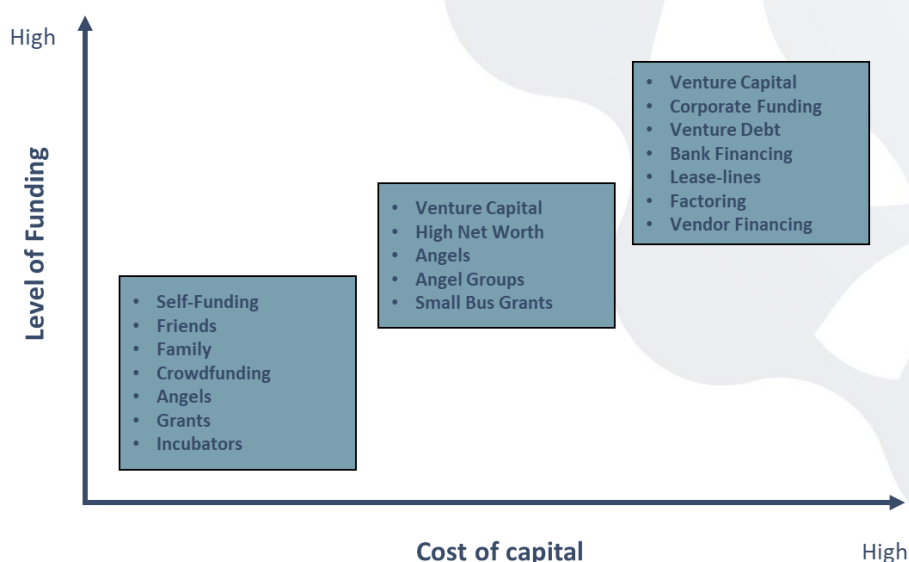


Figure 9. Financial resources.

3.3.3. Partners

They are the network of key suppliers, collaborators/partners, service providers, etc. that help you develop and/or make your product or service to make your business model work. Examples of partners would be: key component/material suppliers, contract manufacturers, contract research organizations (CROs), contract developers, strategic partners, services (legal, regulatory, business/reimbursement, financial/tax), among others.

It is **important to map all your key partners** as well as your key activities. You should develop your partnerships and be honest about your numbers and figures with them.

3.3.4. Relationships & Channels

Identify the way in which you engage with customers and influencers **to develop and maintain needed relationships** and deliver the product/service to users.

- **Customer Relationships:** an organization must select the kind of relationship it will have with its customer segment in order to create financial success and sustainability. These relationships can be categorized as:
 - Personal assistance: the company **interacts directly with the customer** through an employee.
 - Dedicated personal assistance: an employee is assigned to a set of clients and is personally responsible for the entire experience.
 - Self-service: **customers serve themselves.**
 - Automated services: this is a type of self-service, but the historical preference of the customer is considered.
 - Communities of clients: **a way to interact with communities directly.** Clients can also share their experience and come up with common challenges and solutions.
- **Channels:** the medium through which an organization provides its value proposition to its customer. There are two types of channels:
 - Company owned channels
 - Partner channels: through distributors

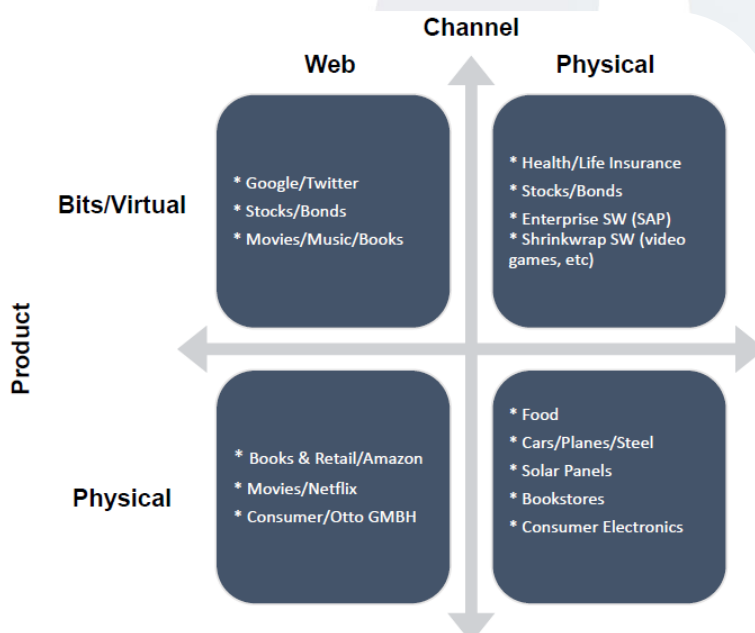


Figure 10. Examples of channels and products.

3.4. Business economics

In this section you need to focus on your costs, cashflow and revenues. The **revenue** is the amount of money that will enter your organization as a function of time.

3.4.1. Cost structure

The fixed and incremental costs to operate the business and deliver/support the solution. The **fixed expenses will not change with volume**. Consider fixed costs:

- R&D costs: this will typically be the big driver of these expenses.
- Office space, administrative costs, insurance, etc.
- While Manufacturing labor is technically a variable cost, in small companies it's usually considered fixed.

Labor costs drive everything. Therefore, you need to think about **how many people in each department you need** rather than how much money you need to invest in each department, and then multiply per inclusive numbers.

3.4.2. Cash Flow / Value

Identify your sources of revenue and your variable expenses, as well as investor economics, cash flow/needs, capital needs and profits generated.

Your **variable expenses will change with the number of units sold**. The two most typical variable expenses will be:

- Cost of Goods Sold (COGS): how much you must pay **to make your solution**. This value changes linearly with the number of units sold.
- Customer Acquisition Costs (CAC): how much you must pay **to sell your solution**. Depending on your distribution channel, this cost will be fixed or variable. For example, if you sell through a distributor and the distributor wants to buy the product from you at 50€ and sell it to users at 100€, your CAC will be 50€ per unit.

Cash Flow is the amount of money that you have to support your operations (pay bills, invest in new products, pay salaries, etc.); this is the lifeblood of your company. If your expenses are higher than your revenue, you are **operating at a loss and “burning cash”**, which is what happens at the beginning of a company. You can quantify your revenue as the amount of money you will make as a function of time. There are different revenue models in which you can raise money: cash up front, monthly recurring revenue, disposables, selling equity, among others. You should not include grant income as revenue.

4. Wrap-up

After reading this guide, we hope you have a clearer idea on how to design your Business Model Canvas in Healthcare.

The take-home messages are:

- The healthcare field has specific characteristics and therefore you need to adapt your business model to it.
- Make efforts on defining the “selling part” of your Canvas: the customer segments (users+ economic buyers), the value proposition (value statement + value quantification), your influencers (experts + authorities).
- Always adapt your value proposition to your customer segment: value statement for your users and value quantification for the economic buyers.
- Identify your influencers (experts, KOL, anti-buyers, etc.) and spend time listening to them. Focus on engaging a lead user that will advocate for your solution.
- Be careful in calculating your market size and it's acceptable to start small and then grow.
- Define your organization's key activities, core competencies and key partners.
- Identify what are the relationships that will help you develop and/or manufacture your solution.
- Find the way by which you will get your solution to customers and you will support users.
- Do not base the price of your solution on the cost of the product. Consider all the fixed and variable expenses you will have. It's important to have an accurate financial status. Some numbers will be guesses at the beginning, as you cannot predict everything, but the main point is that you can argument why you made those guesses.

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