

Dr. Marc
Laperrouza

ENV-470 Development engineering 2024-2025

Lausanne –
April 2025

Value proposition

Customer and user-centric design

In 1 sentence...

*For whom and what type of value
a product/service is going to create*

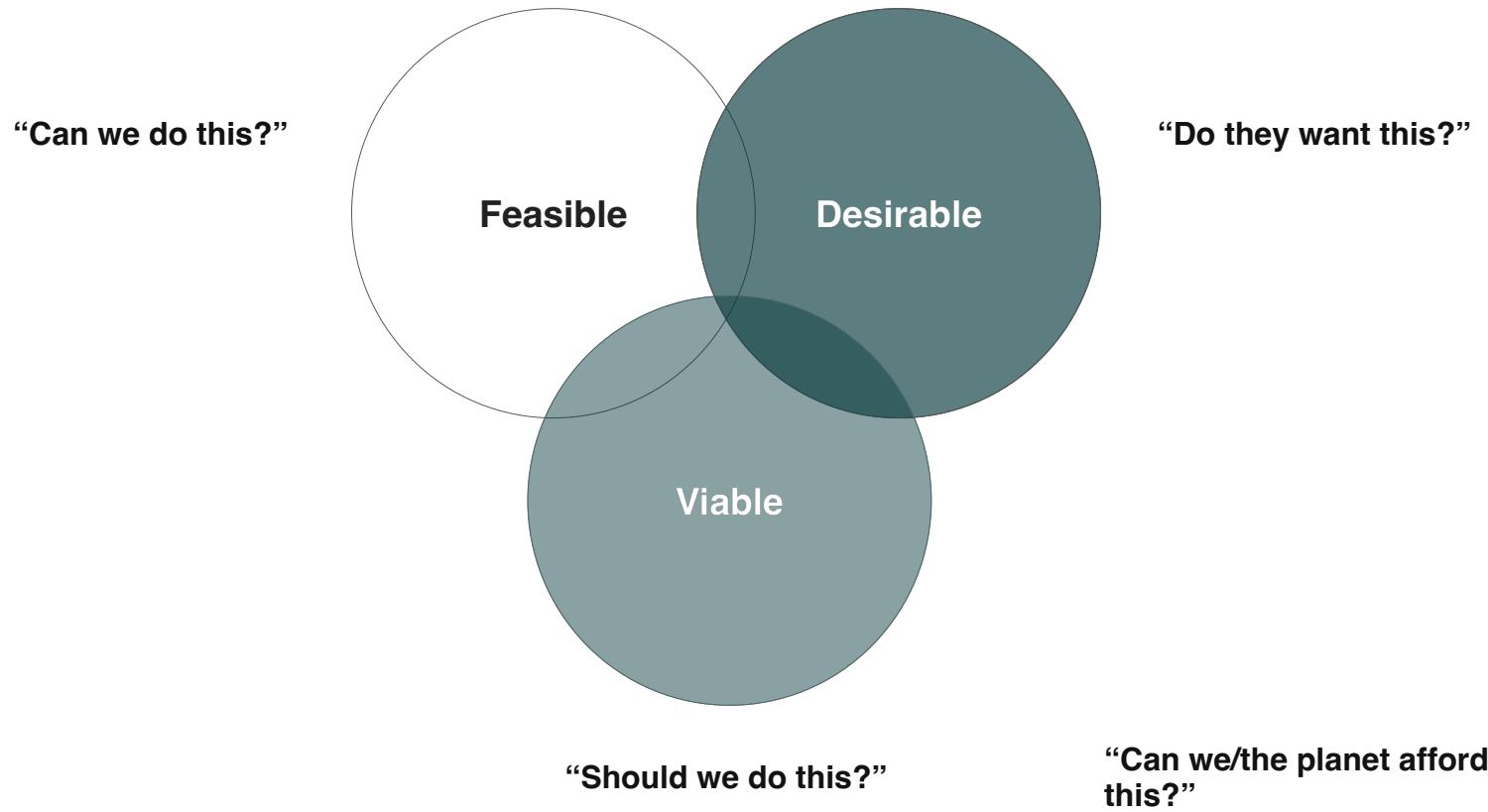
Who could this be?



What could that be?

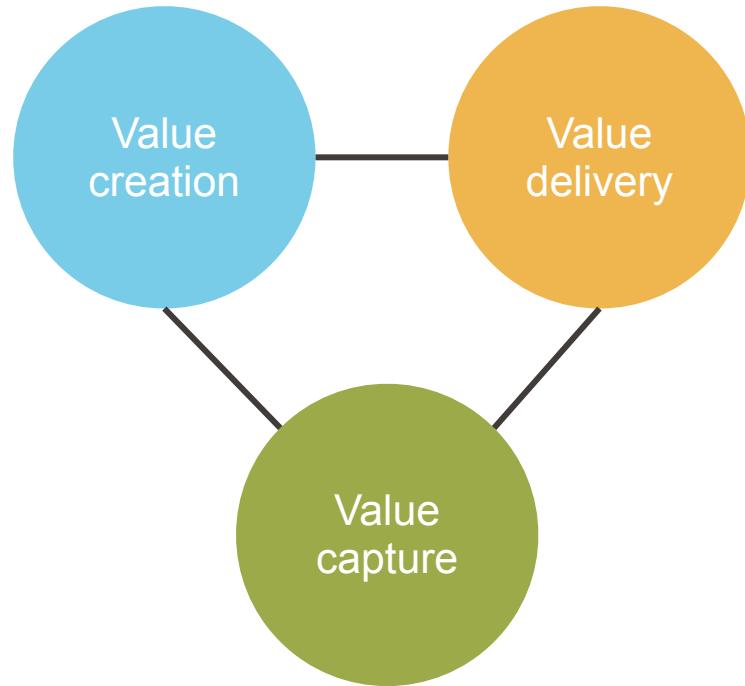


***For whom and what type of value
a product/service is going to create***



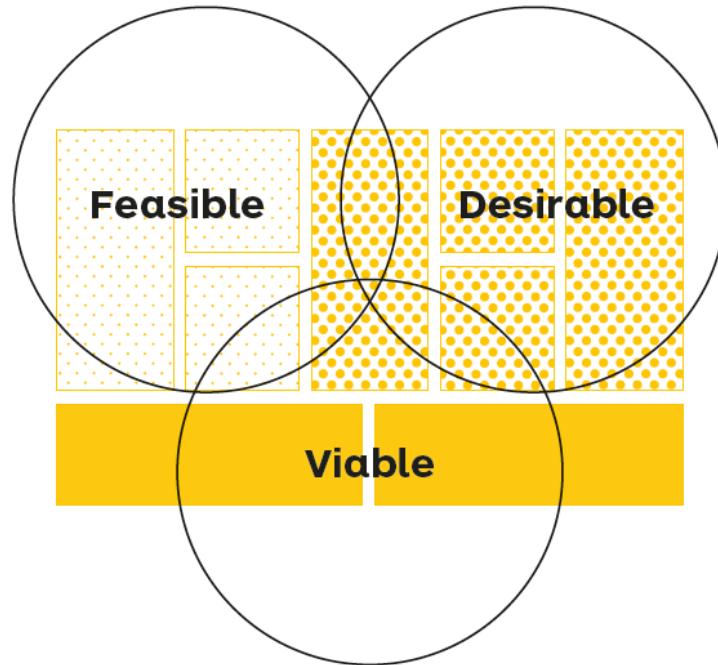
Business model

What **resources, activities or partnerships** do you need to **create products, services or platforms** that **solve problems or create benefits** for customers and/or beneficiaries

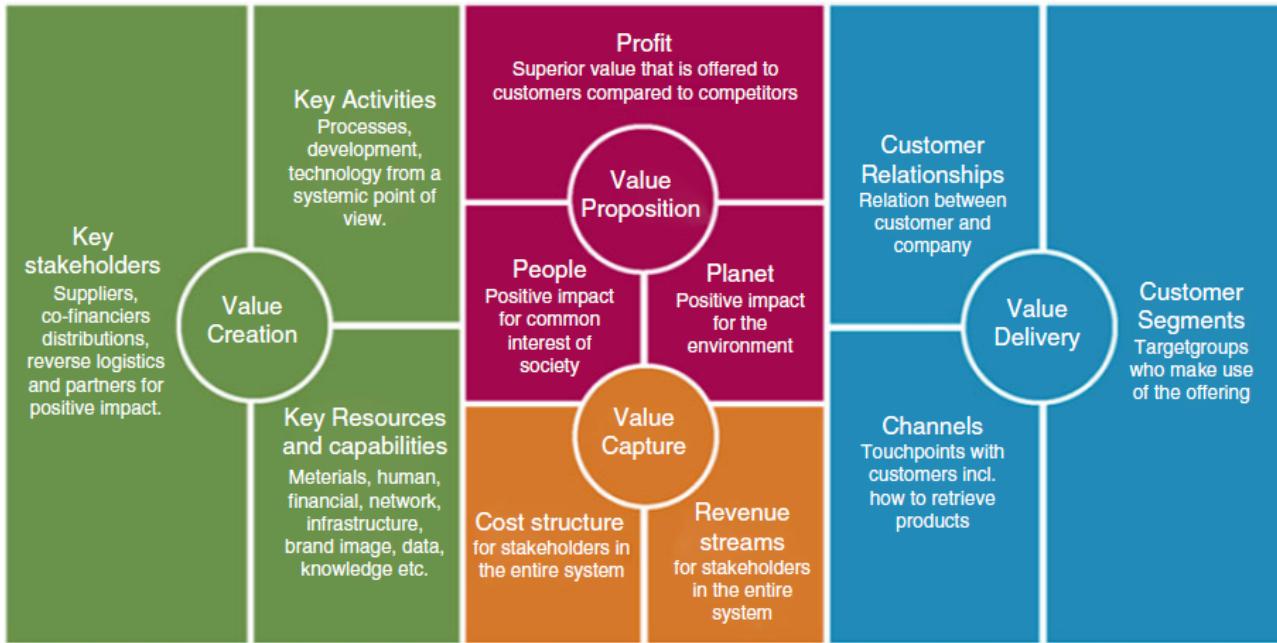


What **systems and channels** do you need to have in place to **deliver a product, service or platform** to customers and/or beneficiaries

How do you **generate revenue** from the product, service or platform offered



The pieces of the puzzle...



Aims of the session

- By the end of the session, **students** should be able to:
 - Explain the concepts of value, job-to-be-done and value proposition
 - Describe the elements and mechanics of the value proposition canvas (VPC)
 - Apply the VPC to a project
 - Integrate the VPC into a (sustainable) business model
- Exposé/discussion on **job-to-be-done** and **value proposition**
- Application of value proposition **canvas** to your project

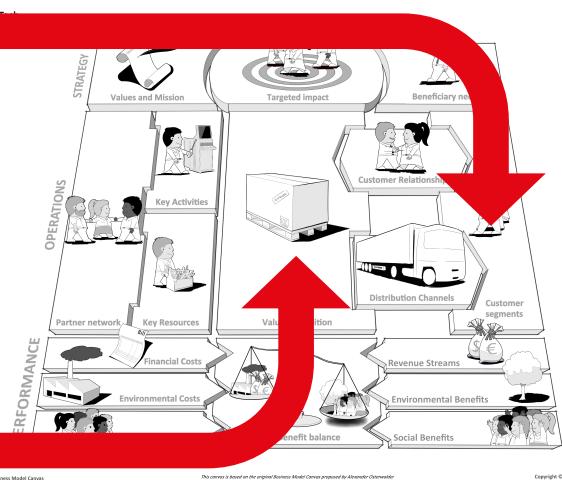
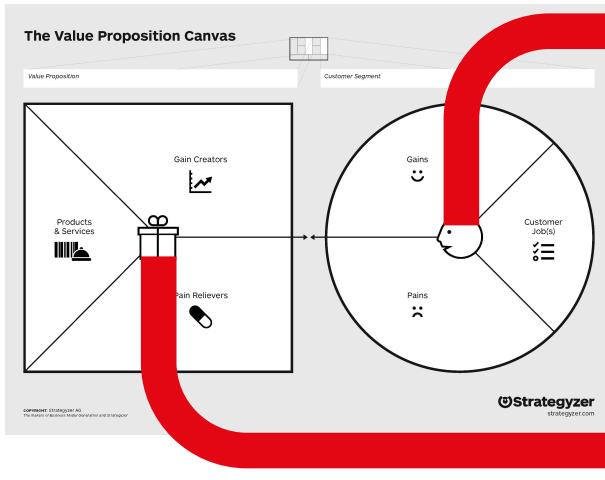
- Introduction – 10'
- Of value – 20'
- Job-to-be-done (video + article) – 15'
- Break – 15'
- Value proposition canvas with example – 40'
- Q&A – 5'
- Break – 15'
- Project work with coaches – 90'

29 April

Value proposition

6 May

Business model



*business model**

how you create value for your **organization**

value proposition

how you create value for your **customer(s)**

sustainable business model

how you create value for your **organization/stakeholders**

sustainable value proposition

how you create value for your **customer(s), user(s) and beneficiaries**

Of value

“The amount and nature of value in a particular product or service always lie **in the eye of the beholder.**”

Source: Almquist, E., J. Senior and N. Bloch (2016). "The Elements of Value" Harvard Business Review 94(9): 46-92.

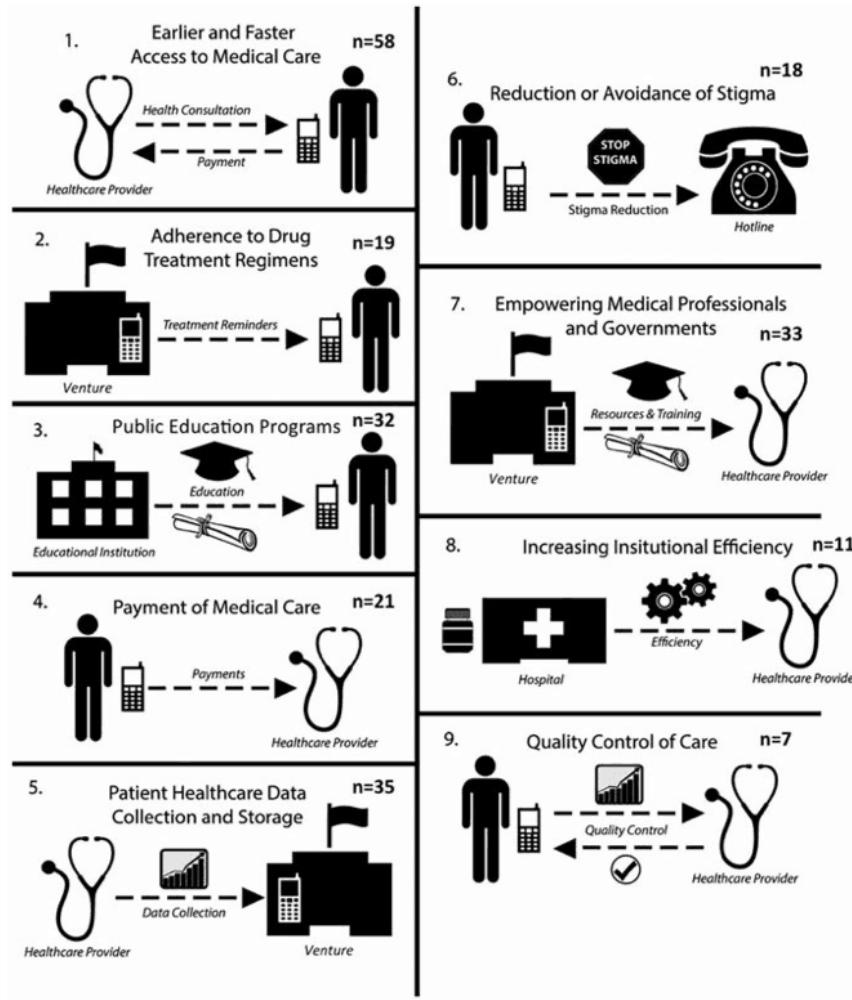
“...the value of a market offering is ultimately determined by the customer, and is conceptualized as a customer’s **willingness to pay** or the **benefit** the consumer experiences.”

Source: Chesbrough, H., Lettl, C., & Ritter, T. (2018). Value Creation and Value Capture in Open Innovation. *Journal of Product Innovation Management*, 35(6), 930-938.

def·i·ni·tion
defə'niSH(ə)n

: *use of mobile phones and other wireless technology
in medical care*

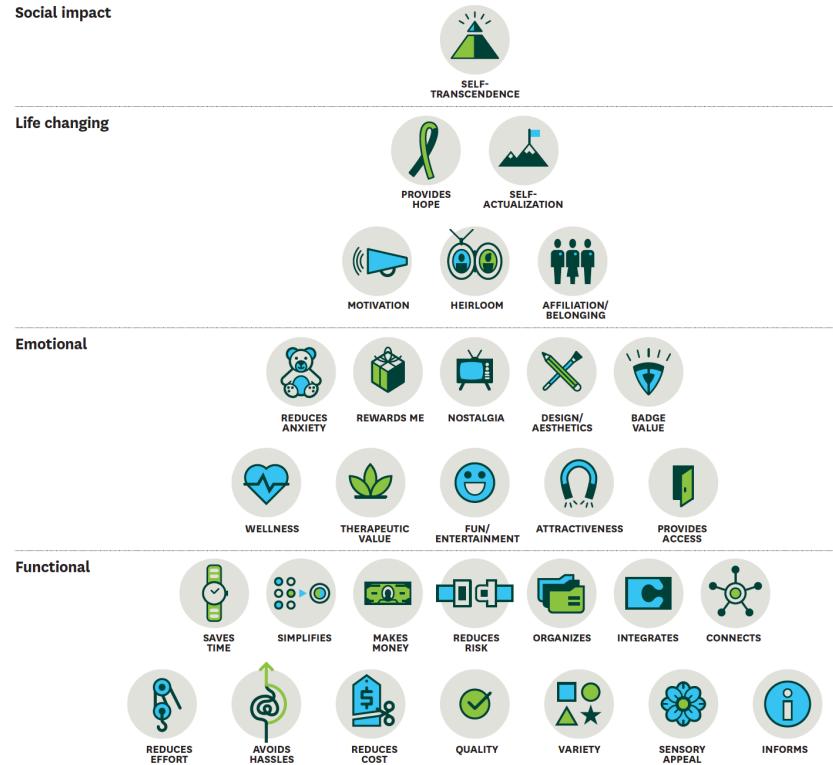
***for whom and what type of value
a mHealth project could create in the Global South***



Source: <https://nextbillion.net/how-to-make-money-in-mhealth-in-emerging-markets/>

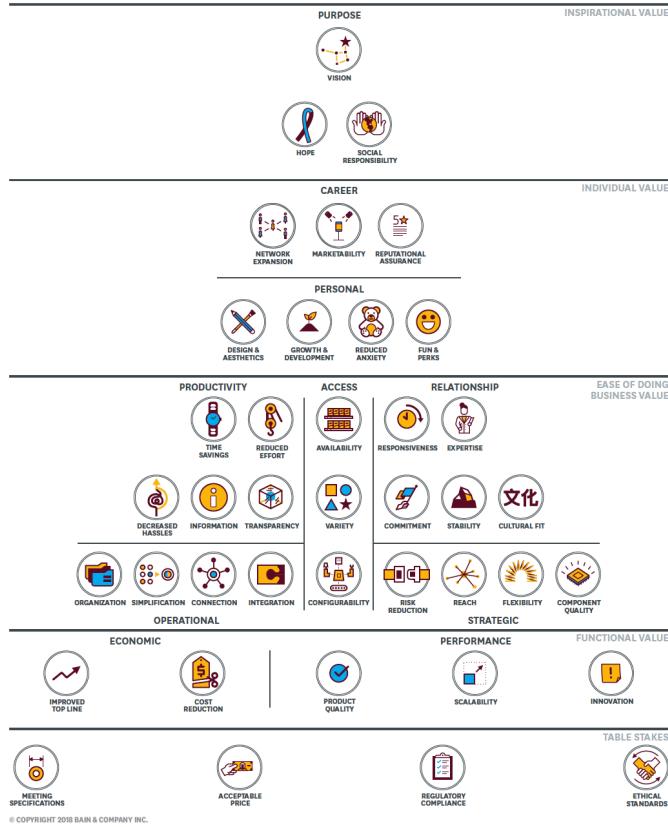
More from: Sundin, P., J. Callan and K. Mehta (2016). "Why do entrepreneurial mHealth ventures in the developing world fail to scale?" Journal of Medical Engineering & Technology 40(7-8): 444-457.

Elements of value B2C



Elements of value B2B

From more to less objective



Jobs-to-be-done

Clarifications

Jobs-to-Be-Done (JTBD)



What did you **take away** from the article?

Some take-aways

- The **circumstances** are more important than customer characteristics, product attributes, new technologies, or trends
- Good innovations solve problems that formerly had only inadequate solutions – or no solution
- Jobs are never simply about function – they have powerful **social** and **emotional** dimensions

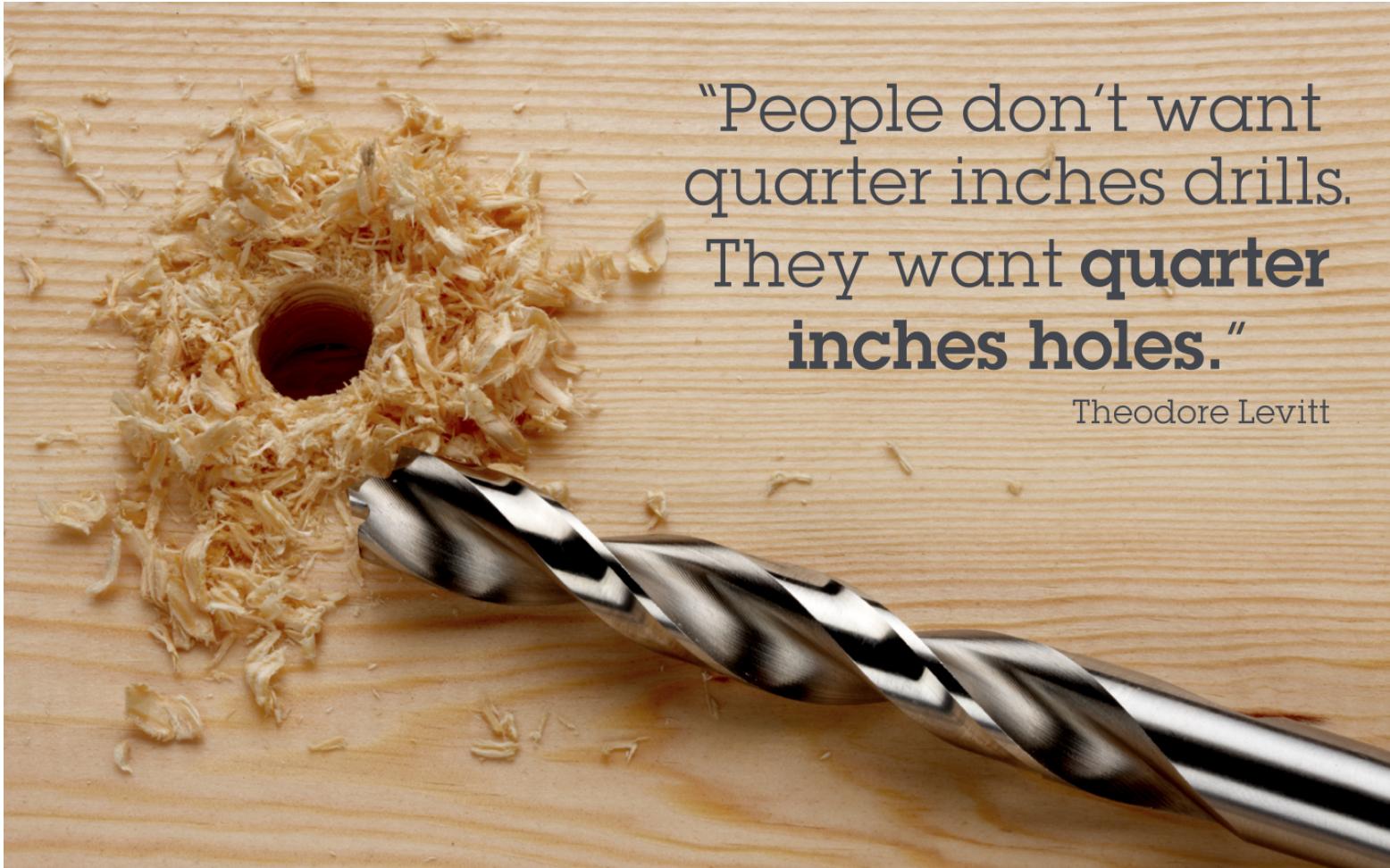


10-15 minutes

Watch the video & identify 3-4 key concepts related to jobs-to-be-done

“The focus should be on what jobs customers are trying to get done”

Tony Ulwick



“People don’t want quarter inches drills. They want **quarter inches holes.**”

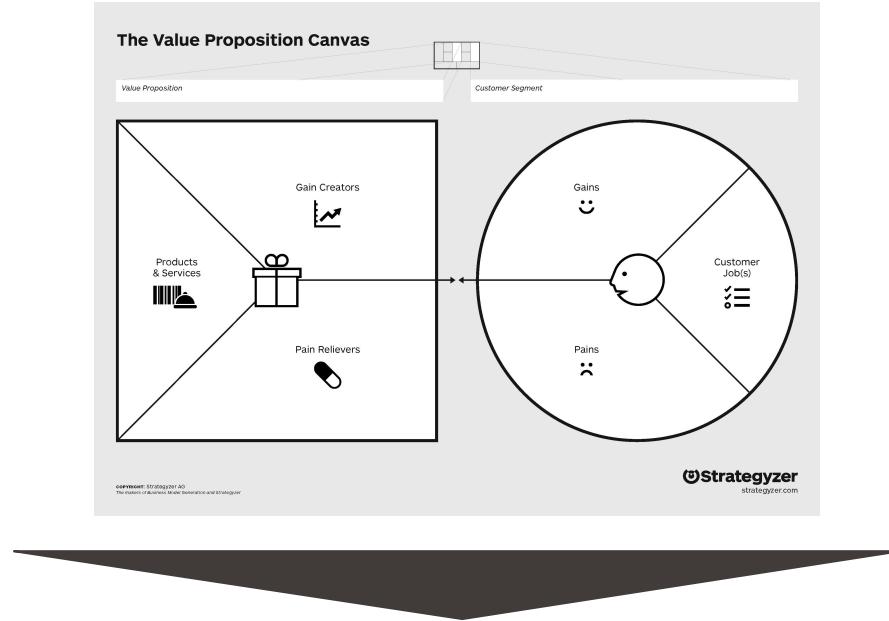
Theodore Levitt

Q & A

Value proposition canvas

Clarifications

Value proposition canvas (VPC)



Any questions regarding the **elements** or **mechanics** of the canvas?

Value proposition canvas (VPC)

The Value Proposition Canvas

COPYRIGHT: Strategyzer AG
The makers of Business Model Generation and Strategyzer

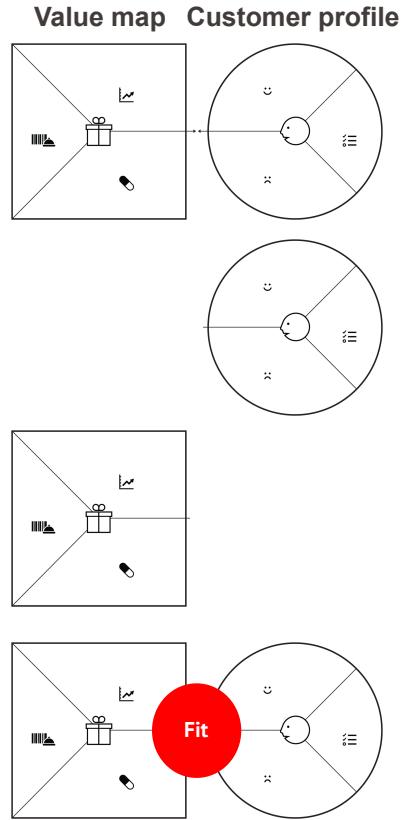
©Strategyzer
strategyzer.com

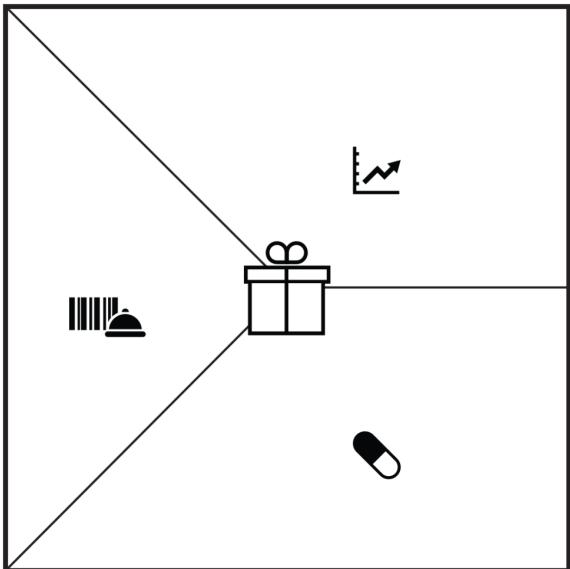
The Value Proposition Canvas has **two sides**

With the **customer profile** (right) you clarify your understanding of the customer(s)

With the **value map** (left) you describe how you intend to create value for that customer

You achieve **fit** between the two when one meets the other...





Gains describe the outcomes customers want to achieve or the concrete benefits they are seeking

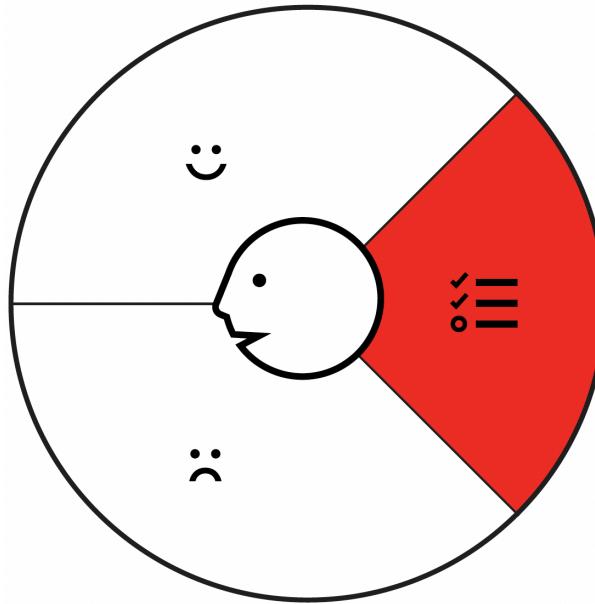
Customer jobs describe what customers are trying to get done in their work and in their lives, as expressed in their own words

Pains describe bad outcomes, risks, and obstacles **related to customer jobs**

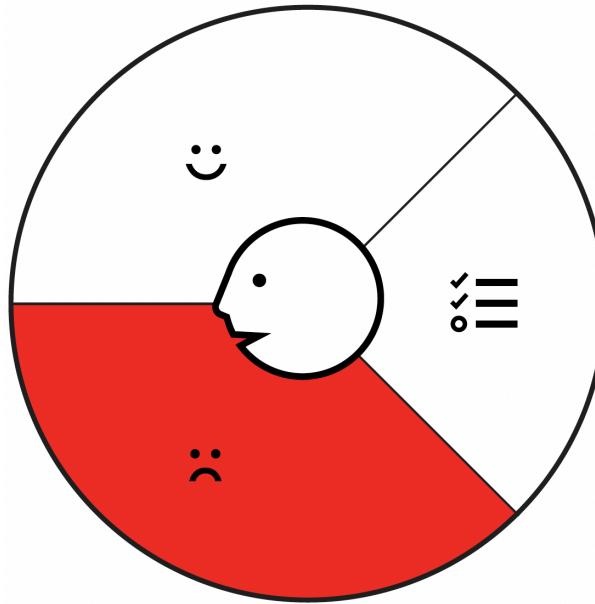
3 (+1) types of jobs

- Functional: perform or complete a specific task or solve a specific problem (e.g., write a technical report, light the house)
- Social: seek social capital (e.g., be perceived as a competent engineer, reduce intergenerational tensions)
- Personal/Emotional: seek a specific emotional state (e.g., feel good about myself, achieve peace of mind during a divorce)
- Supporting: buy, co-create or transfer value (e.g., complete a purchase, post a product review or dispose of a product)

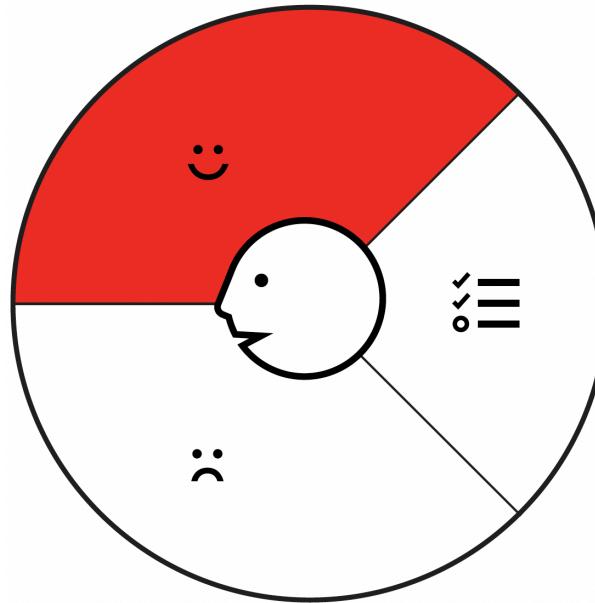
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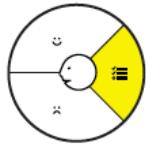
Pains describe bad outcomes, risks, and obstacles **related to customer jobs**



Gains describe the outcomes
customers want to achieve or the
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Ranking jobs, pains and gains



Job importance

Rank jobs according to their importance to customers.



Pain severity

Rank pains according to how extreme they are in the customers' eyes.



Gain relevance

Rank gains according to how essential they are in the customers' eyes.

+

Important



Insignificant



+

Important



Insignificant



+

Important



Insignificant



Value map: Products & services



This is a list of all the **products and services** a value proposition is built around

Value map: Pain relievers

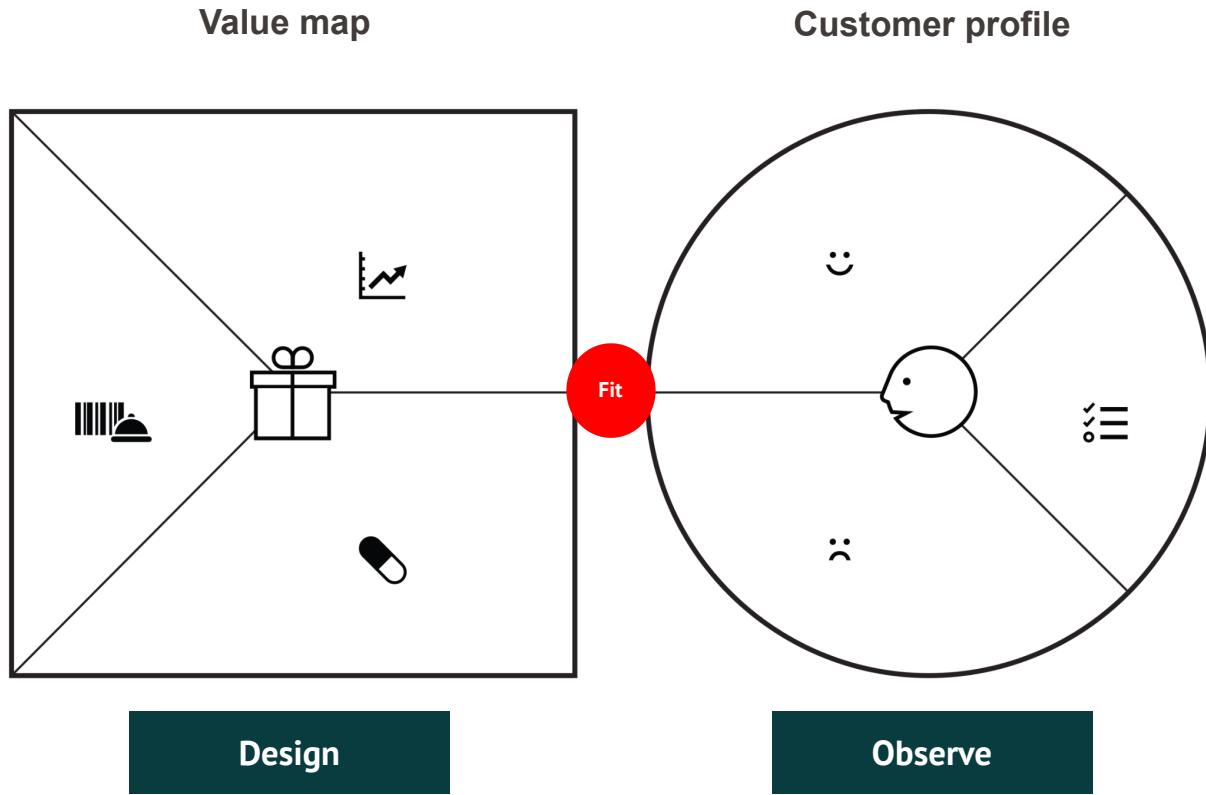


Pain relievers describe how your products and services alleviate **customer pains**

Value map: Gain creators



Gain creators describe how your products and services create **customer gains**





On Paper



In the Market



In the Bank

Problem-solution fit

Product-market fit

Business model fit

Only hypotheses

Validation of hypotheses

↓
Identify JTBD, pains and gains
Prototype the corresponding
value proposition

↓
Develop new value propositions

Some questions regarding the VPC

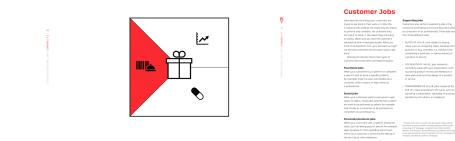
- Does it **focus** on the most important jobs, most extreme pains, and most essential gains?
- Does it address functional, emotional, and social jobs **all together?**
- Does it **align** with how customers measure success?
- Does it **differentiate** from competition in a meaningful way?
- Does it focus on jobs, pains, or gains that a large number of customers have or for which a small number are willing to pay a lot of money?

Value map

- List all your products and services rather than just those targeted at a specific segment
- Add products and services to the pain reliever and gain creator fields
- Offer pain relievers and gain creators that have nothing to do with the pains and gains in the customer profile

Customer profile

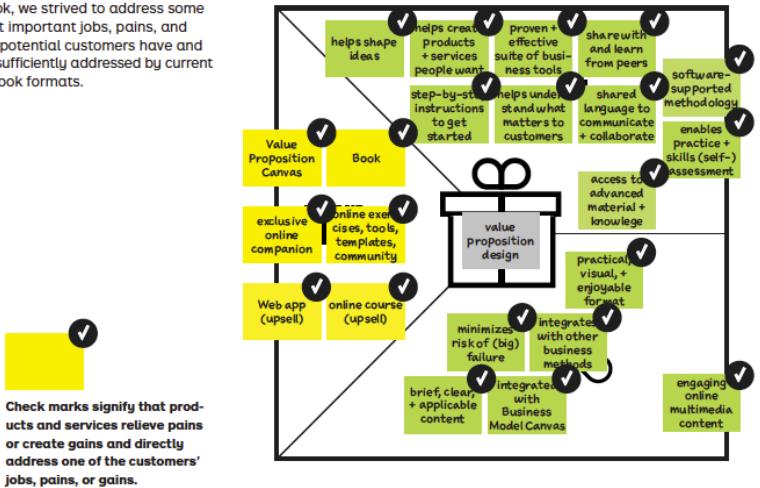
- Mixing several customer segments into one profile
- Mixing jobs and outcomes
- Listing jobs, pains, and gains with your value proposition in mind
- Identifying too few jobs, pains, and gains



2 PDFs in your board can be of help

Fit?

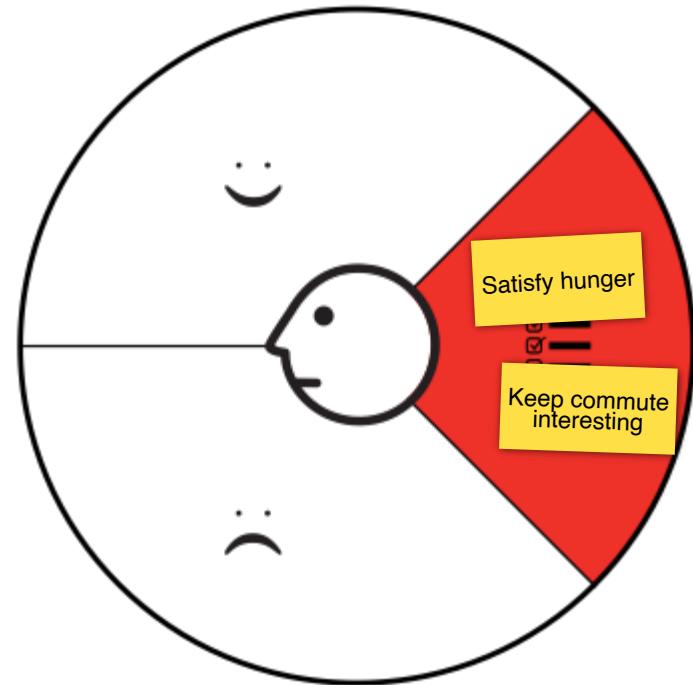
When we designed the value proposition for this book, we strived to address some of the most important jobs, pains, and gains that potential customers have and that are insufficiently addressed by current business book formats.



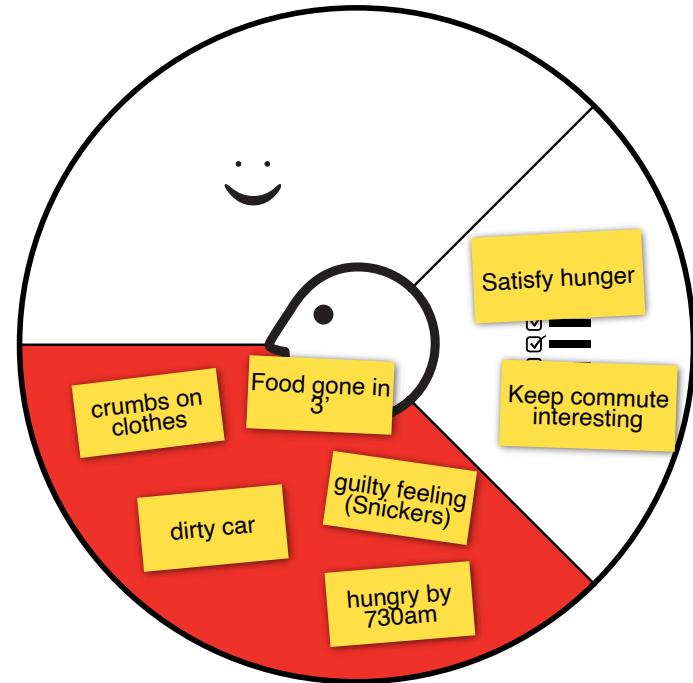
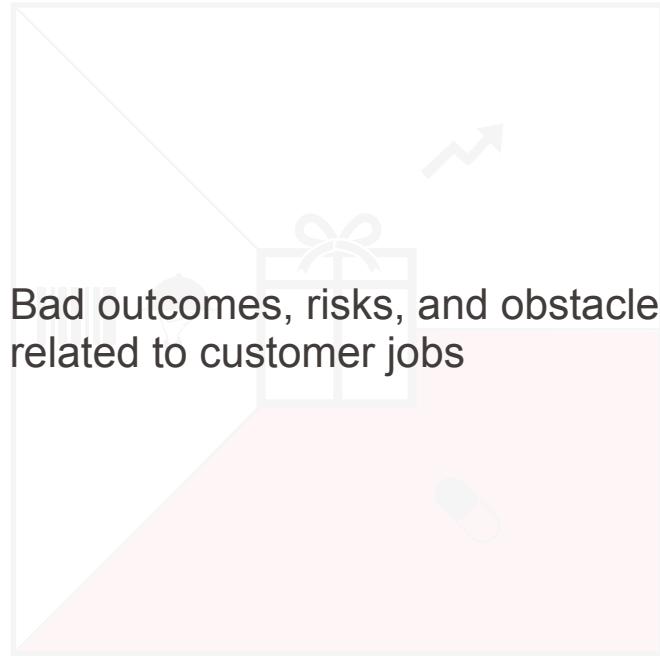
Source: Osterwalder, A., Pigneur, Y., Bernarda, G., & Smith, A. (2014). *Value proposition design: how to create products and services customers want*. Hoboken, NJ: Wiley

Milkshake example

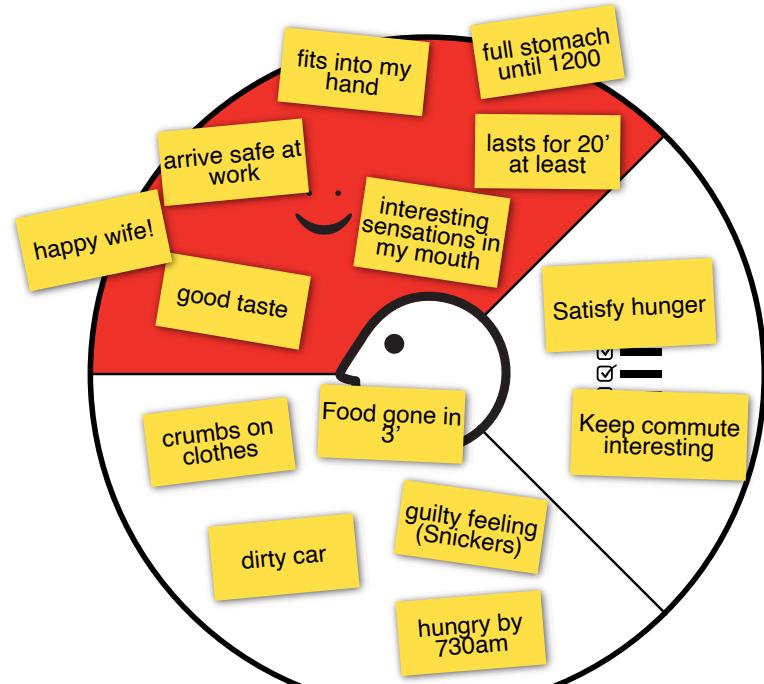
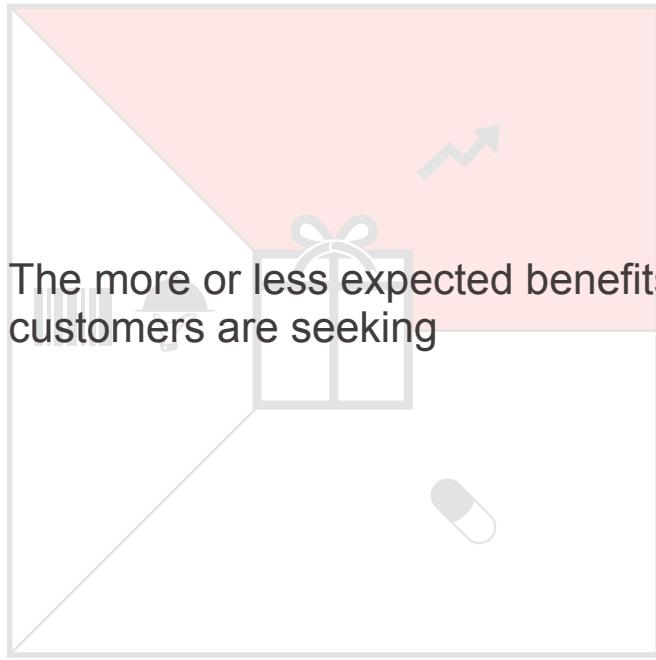
What customers are trying to get done
in their work and in their lives



Customer pains



Customer gains



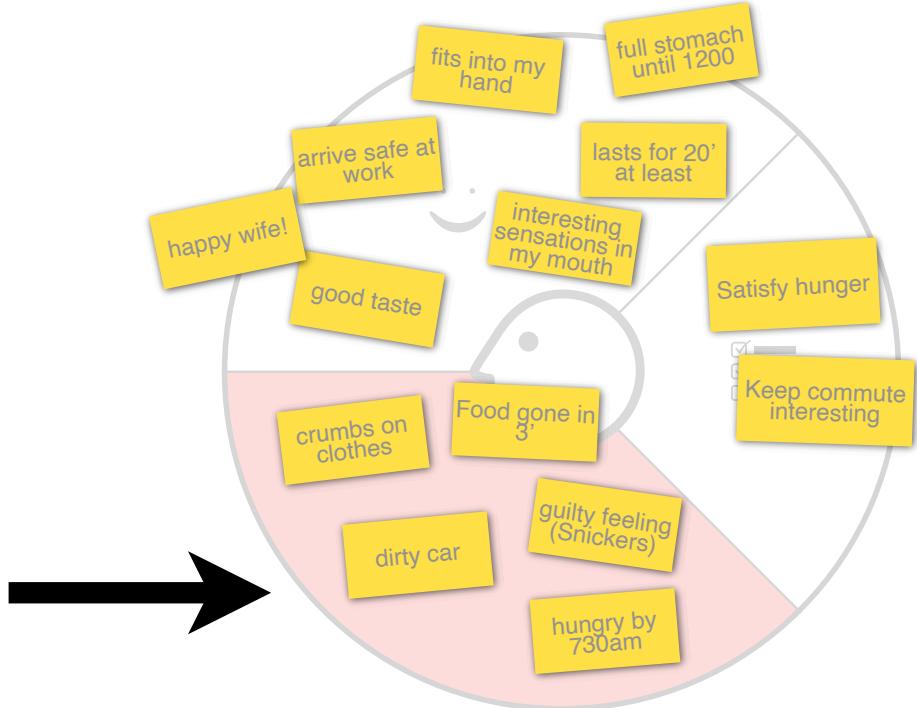
What is the best solution?



Products & services

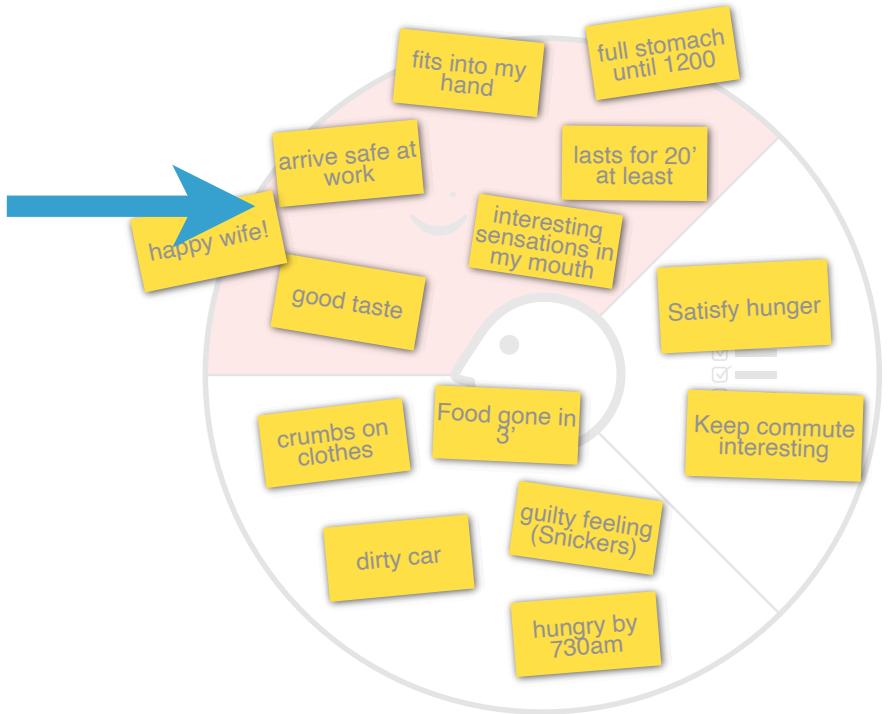


Pain relievers



How do your products and services address your customer's pains ?

Gain creators



How do your products & services create gains your customers expect, want, or desire ?

Azuri (formerly Eight19)

An example of VPC

750+ million people still live without electricity*

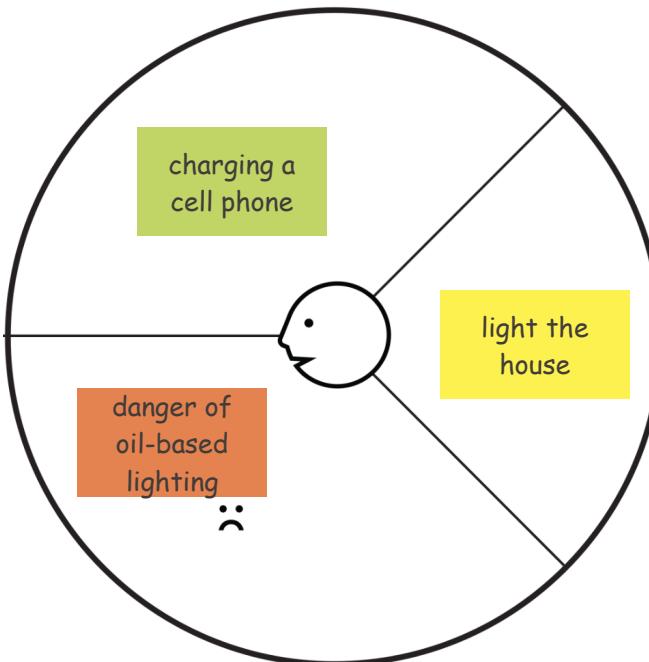


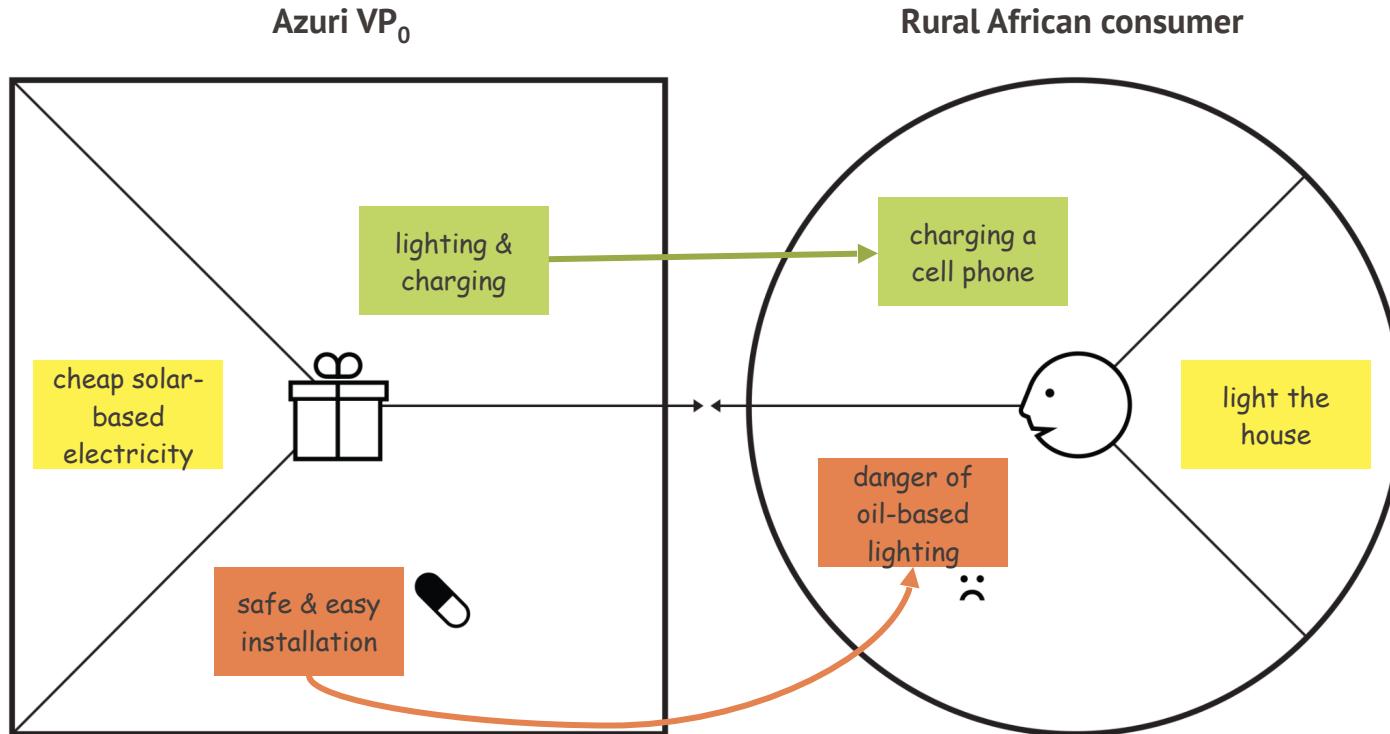


LIFE CHANGING
TECHNOLOGY

Spin-off from Cambridge University
Developed fully printed plastic solar modules
Targeting the African continent

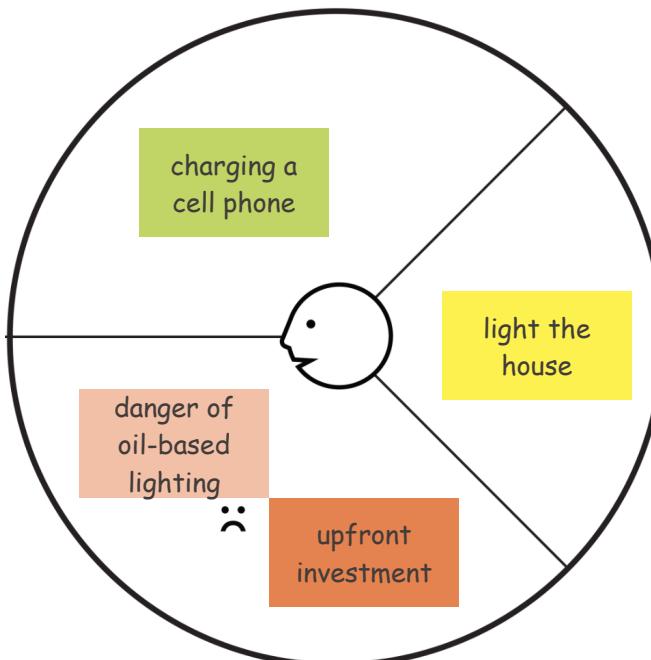
Rural African consumer





A rural farmer on USD3 per day
struggles to afford a USD 70 solar
power system

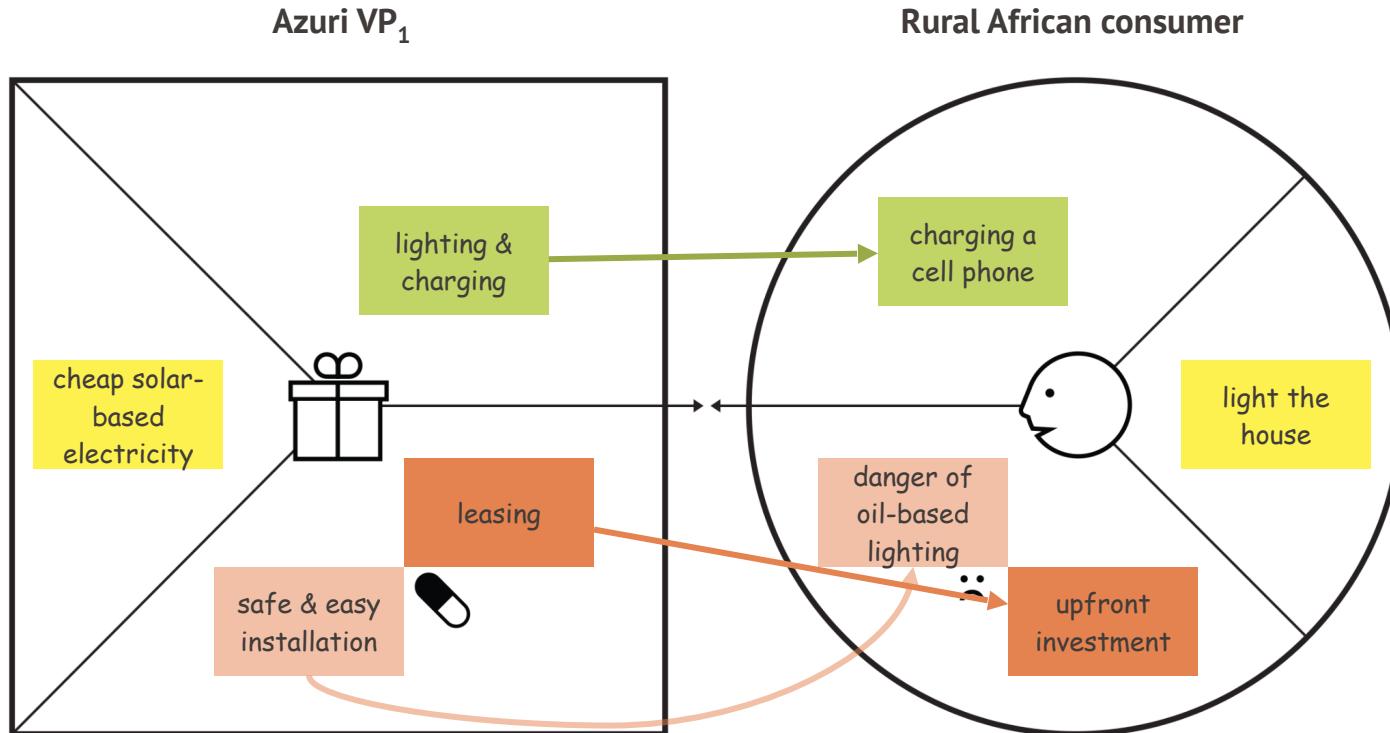
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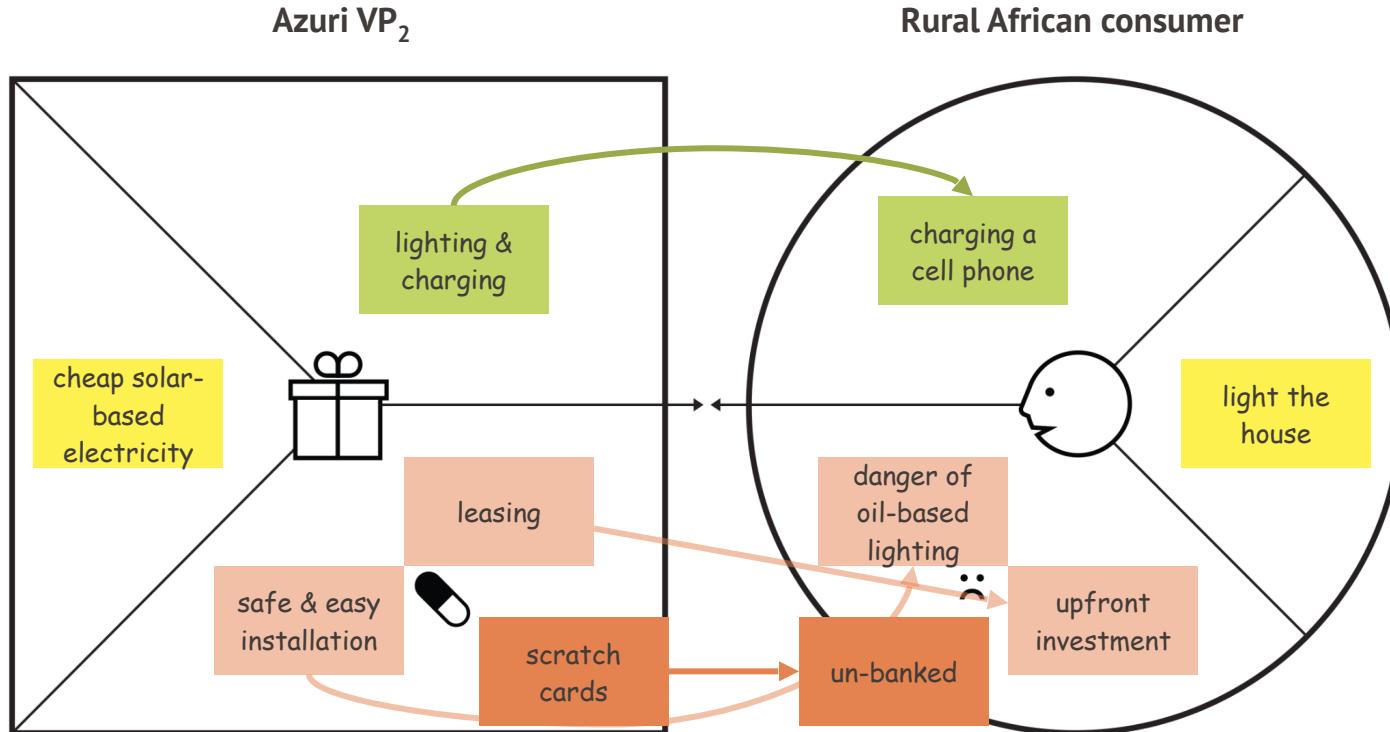
Source: Osterwalder, A., Pigneur, Y., Bernarda, G., & Smith, A. (2014). Value proposition design: how to create products and services customers want. Hoboken, NJ: Wiley

How to provide solar cell panels to users who have no money?

Give the solar installations away “for free**”
(to eliminate the hurdle of upfront investment)**



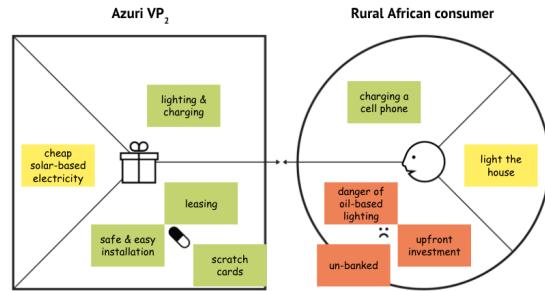
How can you provide **leasing** to spread out and “un-banked” rural African consumers?



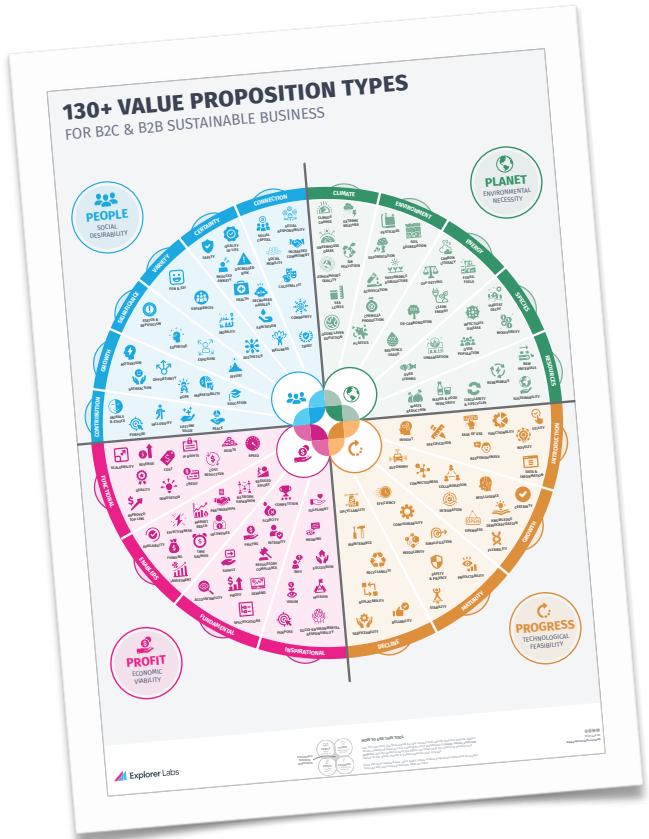
Communicating your VP

Communicating your value proposition

- The VPC is a tool to **observe** and **design**
- It can also be used to **communicate** your value proposition in a clear way



Our **cheap solar installation** helps **rural African consumers** who want to **light their house** by **avoiding oil-based lighting** and **charge their cell phones** (unlike kerosene lamps)



SUSTAINABLE VALUE PROPOSITION
PEOPLE, PLANET, PROFIT, PROGRESS

1 VALUE PROPOSITION TYPES
Select the value types you're creating using the 130+ Value Types Poster

2 VALUE PROPOSITION KPI'S & METRICS
Metrics to track your chosen value types. Try to be as specific as possible according to your strategy

3 SUSTAINABLE VALUE PROPOSITION STATEMENT
Use the helper to write your statement using your value types & KPI's above

Our
PRODUCT, SERVICE, OFFERED, CONTEXT
who have the need OR desire to
help
USER, CUSTOMER, SELLER, INVESTOR, PLANET.

by
VALUE TYPE...
ACTION TYPE (INNOVATIVE, RESILIENT, INNOVATIVE...) • VALUE TYPE...
and
VALUE TYPE...
ACTION TYPE (INNOVATIVE, SUSTAINABLE, INNOVATIVE...) • VALUE TYPE...
ACTION TYPE (INNOVATIVE, SUSTAINABLE, INNOVATIVE...) SAVING CUSTOMER, USER, ECOYSTEM, PLANET...

so that
DESIRED FUTURE OUTCOMES X, Y, Z, HAVING...

Unlike
COMPETITOR OFFER X
ACTION TYPE: PROVIDES, PARTNERS, CREATES...
by
OUTLINE QUANTIFIED KPI'S OR METRICS
HOW TO MEASURE IT

Source: Explorer Labs

Source : Explorer Labs

A template to communicate your sustainable value proposition!

3

SUSTAINABLE VALUE PROPOSITION STATEMENT

Use the helper to write your statement using your value types & KPI's above

Our

cheap solar installation

helps

rural African consumers

PRODUCT, SERVICE, OFFERING, CONCEPT

USERS, CUSTOMERS, SOCIETY, ECOSYSTEMS, PLANET...

who have the need OR desire to

light their house

SOLVE PROBLEM X, JOB-TO-BE-DONE, UN SDG GOALS...

by

VALUE TYP avoiding

+

oil-based lighting

ACTION VERB: (REDUCING, REMOVING, AVOIDING...)

PAINS: CUSTOMER, USER, ECOSYSTEM, PLANET...

and

VALUE T enabling

+

v phone charging

ACTION VERB: (INCREASING, SOLVING, IMPROVING, ENABLING...)

GAINS: CUSTOMER, USER, ECOSYSTEM, PLANET...

so that

energy becomes accessible and affordable

DESIRED FUTURE OUTCOME(S) X, Y, Z HAPPEN...

Unlike

kerosene lamps

our solution is different because...

COMPETITOR OFFER X

reduces total cost of ownership (TCO)

by

a factor 5

ACTION VERB: PROVIDES, ENABLES, CREATES...

OUTCOME QUANTIFIED KPI'S OR METRICS

A new way to deliver energy.

Modular Battery Swapping



■ ENV-470 Development engineering – Value proposition

Fully automated.

01

Source: <https://www.explorrlabs.co/thinking/how-to-build-a-sustainability-focused-value-proposition-statement>

A template to communicate your value proposition!

3

SUSTAINABLE VALUE PROPOSITION STATEMENT

Use the helper to write your statement using your value types & KPI's above

Our

reusable modular battery solution

helps

people in busy cities with e-vehicles

PRODUCT, SERVICE, OFFERING, CONCEPT

USERS, CUSTOMERS, SOCIETY, ECOSYSTEMS, PLANET...

who have the need OR desire to

quickly find and replace their batteries

SOLVE PROBLEM X, JOB-TO-BE-DONE, UN SDG GOALS...

by

VALUE TYPE removing

+

the stress and need to wait for recharging

ACTION VERB: (REDUCING, REMOVING, AVOIDING...)

PAINS: CUSTOMER, USER, ECOSYSTEM, PLANET...

and

VALUE TYPE solving

+

the problem of manufacturing excessive lithium cells

ACTION VERB: (INCREASING, SOLVING, IMPROVING, ENABLING...)

GAINS: CUSTOMER, USER, ECOSYSTEM, PLANET...

so that

we only produce and use batteries we actually use

DESIRED FUTURE OUTCOME(S) X, Y, Z HAPPEN...

Unlike

proprietary battery power e-vehicles that aren't interchangeable and must be individually purchased

COMPETITOR OFFER X

it contributes to SGD 7, 11, 12 and 13

by

our solution is different because...

delivering non-wasteful, sustainably produced, recyclable batteries that provide a scalable and profitable solution across global cities.

ACTION VERB: PROVIDES, ENABLES, CREATES...

OUTCOME QUANTIFIED KPI'S OR METRICS

Source: <https://www.exploratelabs.co/thinking/how-to-build-a-sustainability-focused-value-proposition-statement>

Q & A

Conclusion

- Business model = how you create value
- Value proposition = what and for whom you create value



15 minutes

Project time!

Time to apply this to your project

Value map

- List products and services
- Outline pain relievers
- Outline gain creators
- Rank the above by order of importance

Customer profile

- Select customer segment(s)
- Identify customer jobs
- Identify customer pains
- Identify customer gains
- Prioritize jobs, pains, and gains



Create the first iteration of your value proposition using the value proposition canvas ([see template](#))

- Identify the value types of your project using the SVPC
- Define the value proposition KPI's and metrics
- Draft the value proposition statement

Your Value Proposition

Selected customer segment:

List of alternative customer segments:

1

Your sustainable value proposition statement

Our **■■■** (product/service/offering/concept) helps **■■■** (users/customers/society/ecosystems/planet) who have the need or desire to **■■■** (solve problem x, job-to-be-done, UN SDG goals, etc) by **■■■** (action verb: reducing/removing/avoiding) **■■■** (pains: customer, user, ecosystem, planet, etc) and **■■■** (action verb: increasing/solving/improving/enabling) **■■■** (gains: customer, user, ecosystem planet) so that **■■■** (desired future outcome(s) X, Y, Z happen).

Products & Services

20

Gain creators

1

Gains

Jobs

1

Pain relievers

3

Pains

3

- April 29
 - till 19:00 : Work in teams on the first iteration of VPC (use template on Moodle)
 - 23:59 : Send 1st iteration to the course assistant/me* for feedback, indicating your group number (it's optional and not graded)
- May 6
 - Teams who have submitted a VPC on April 29 receive feedback

Q & A

Example of SVP

A new way to deliver energy.

Modular Battery Swapping



■ ENV-470 Development engineering – Value proposition

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Source: <https://www.explorerslabs.co/thinking/how-to-build-a-sustainability-focused-value-proposition-statement>

A template to communicate your value proposition!

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SUSTAINABLE VALUE PROPOSITION STATEMENT

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PRODUCT, SERVICE, OFFERING, CONCEPT

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SOLVE PROBLEM X, JOB-TO-BE-DONE, UN SDG GOALS...

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ACTION VERB: (REDUCING, REMOVING, AVOIDING...)

PAINS: CUSTOMER, USER, ECOSYSTEM, PLANET...

and

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ACTION VERB: (INCREASING, SOLVING, IMPROVING, ENABLING...)

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DESIRED FUTURE OUTCOME(S) X, Y, Z HAPPEN...

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COMPETITOR OFFER X

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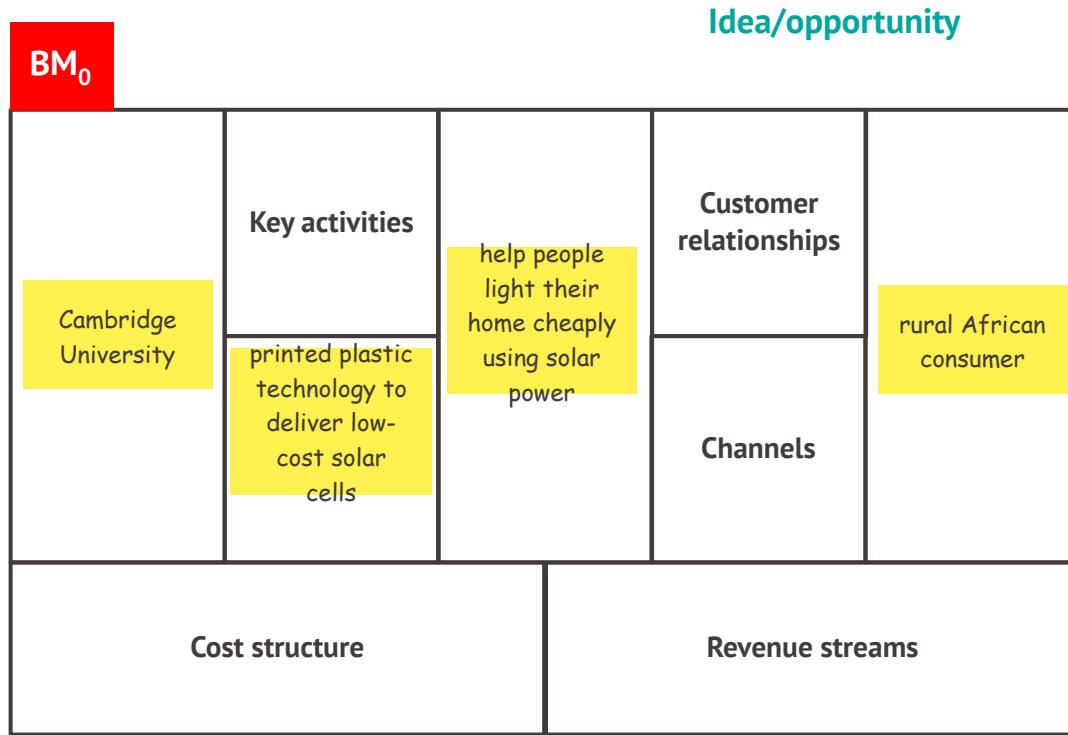
ACTION VERB: PROVIDES, ENABLES, CREATES...

OUTCOME QUANTIFIED KPI'S OR METRICS

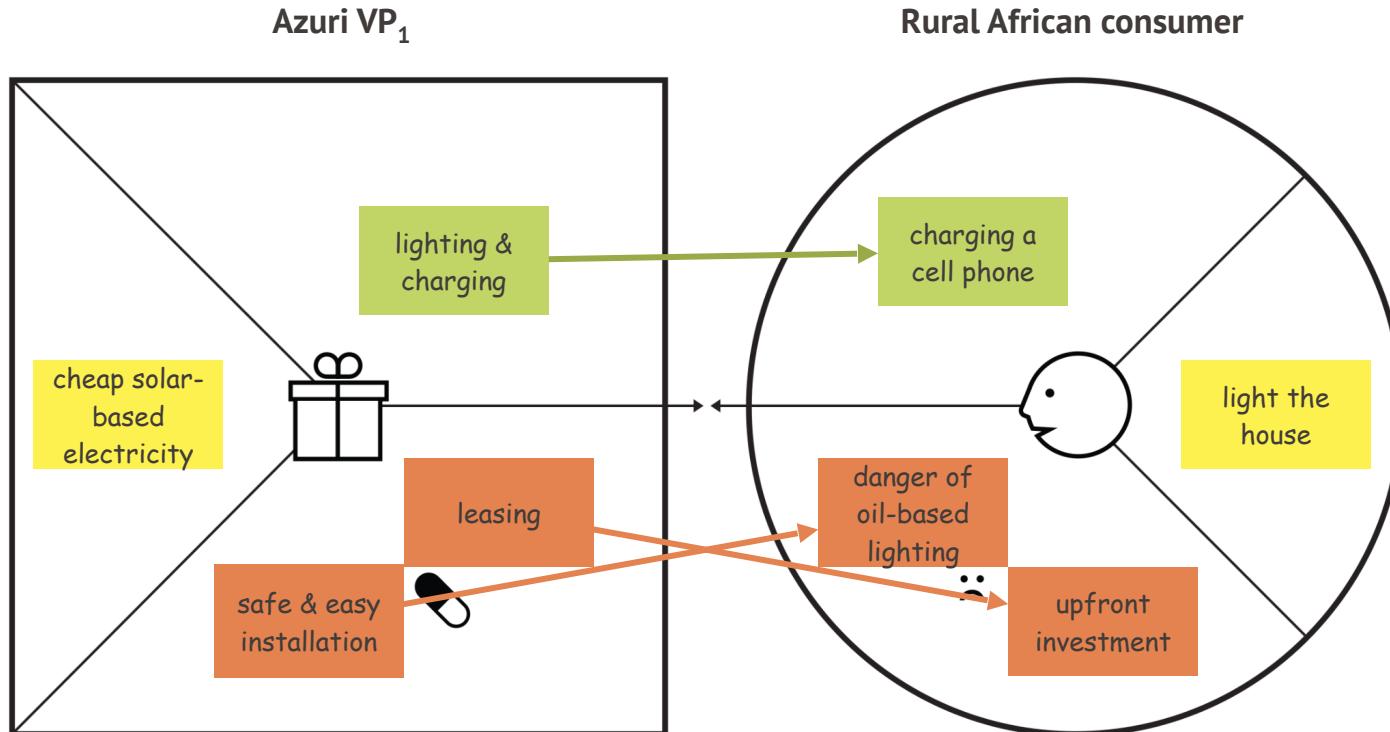
Source: <https://www.exploratelabs.co/thinking/how-to-build-a-sustainability-focused-value-proposition-statement>

Linking value propositions and business models

Azuri's business model

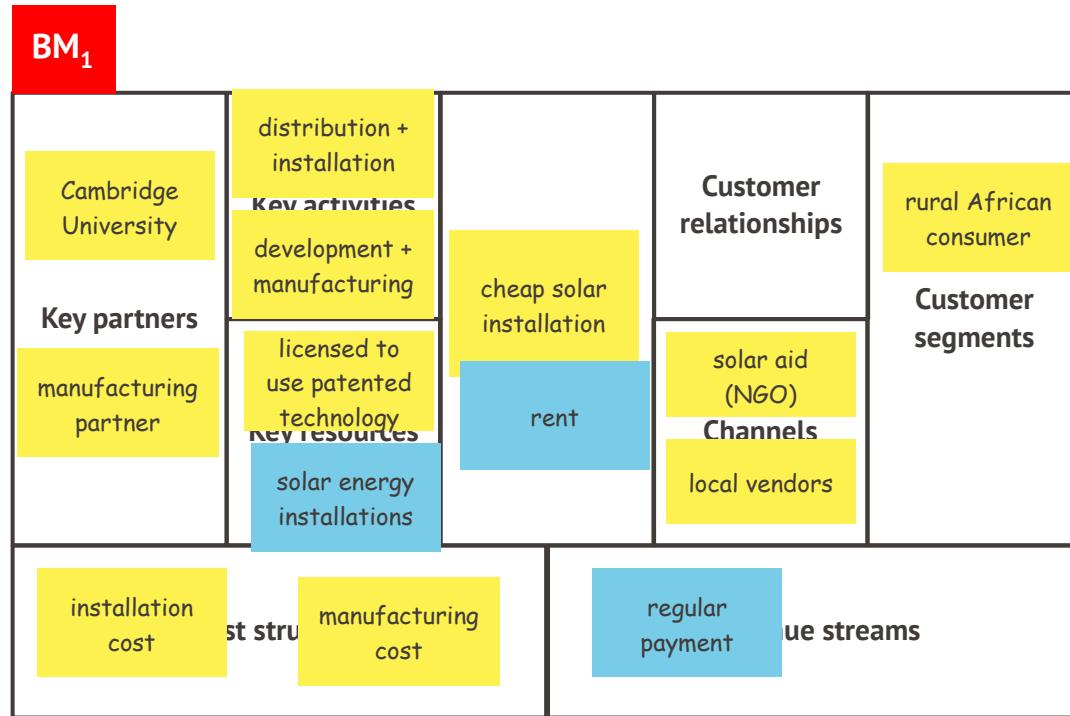


Azuri's business model

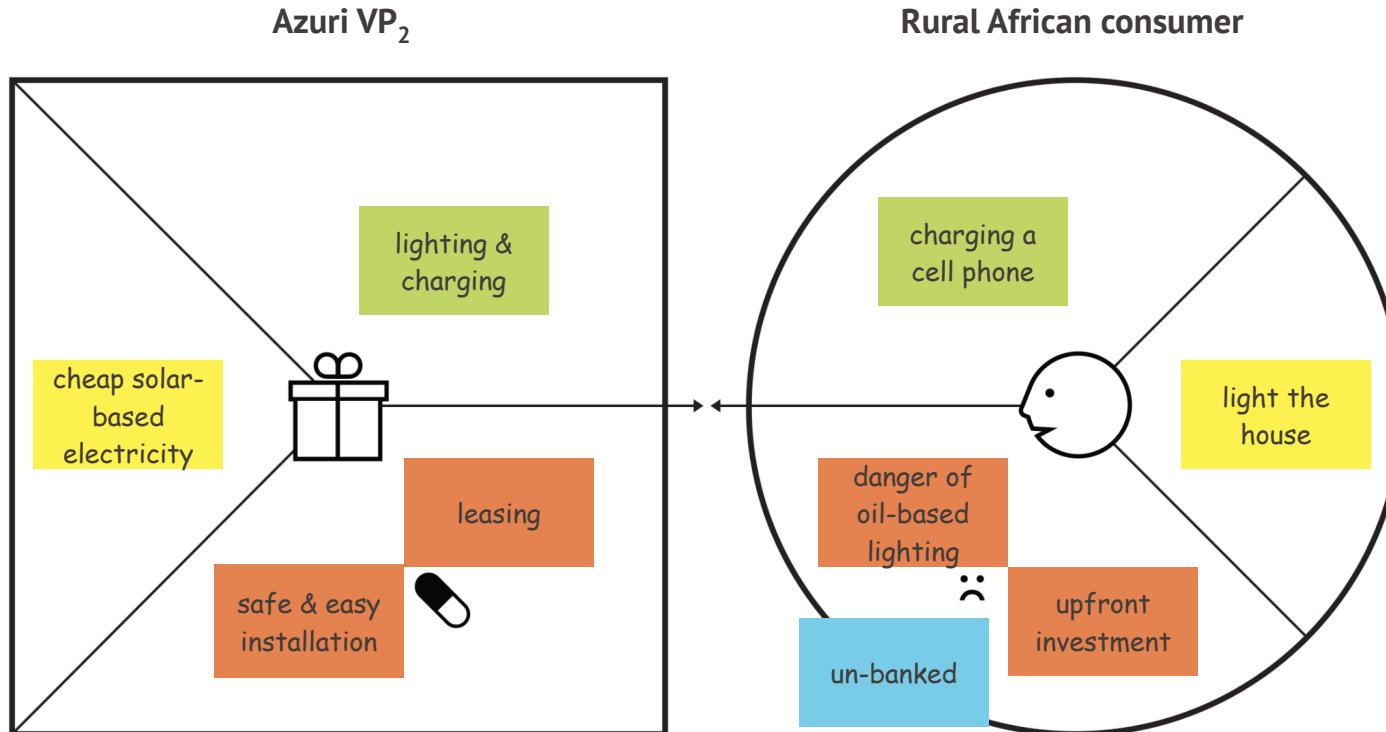


Source: Osterwalder, A., Pigneur, Y., Bernarda, G., & Smith, A. (2014). Value proposition design: how to create products and services customers want. Hoboken, NJ: Wiley

Azuri's business model

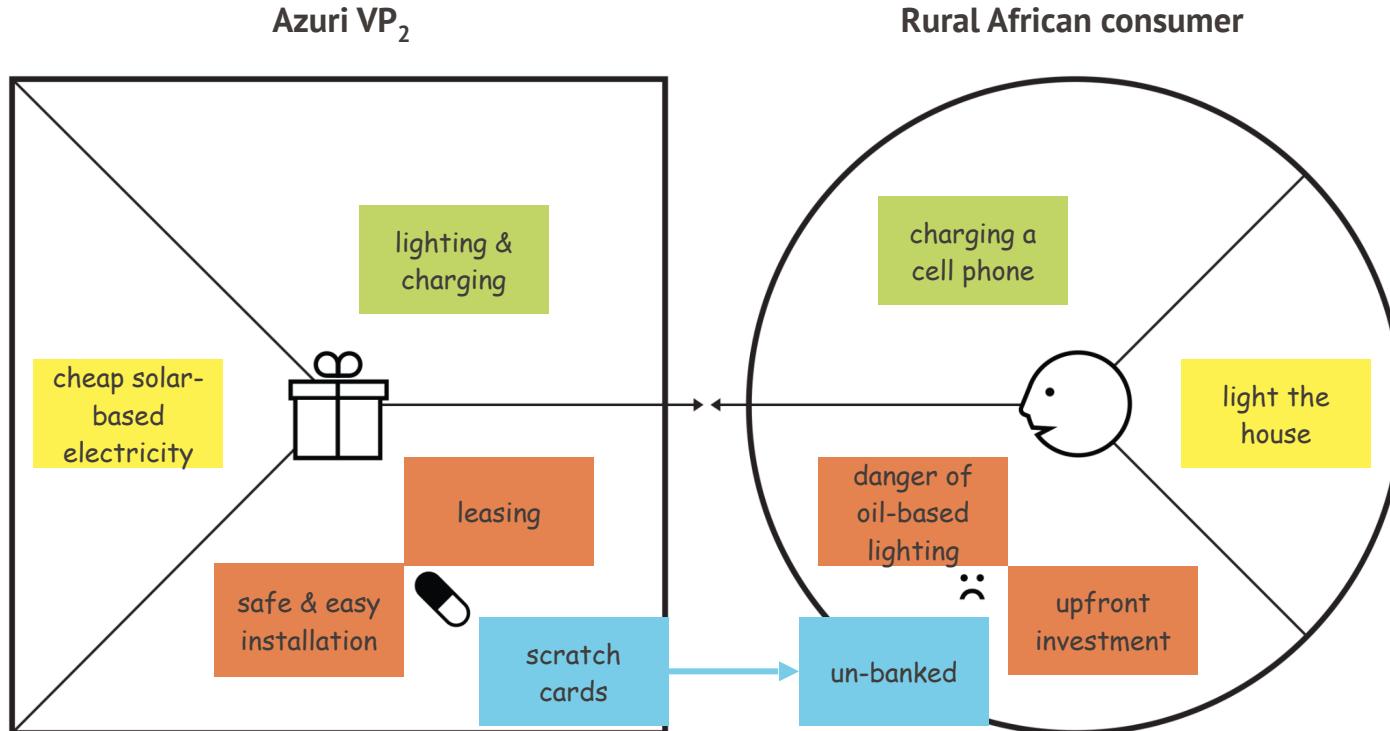


Azuri's business model



Source: Osterwalder, A., Pigneur, Y., Bernarda, G., & Smith, A. (2014). Value proposition design: how to create products and services customers want. Hoboken, NJ: Wiley

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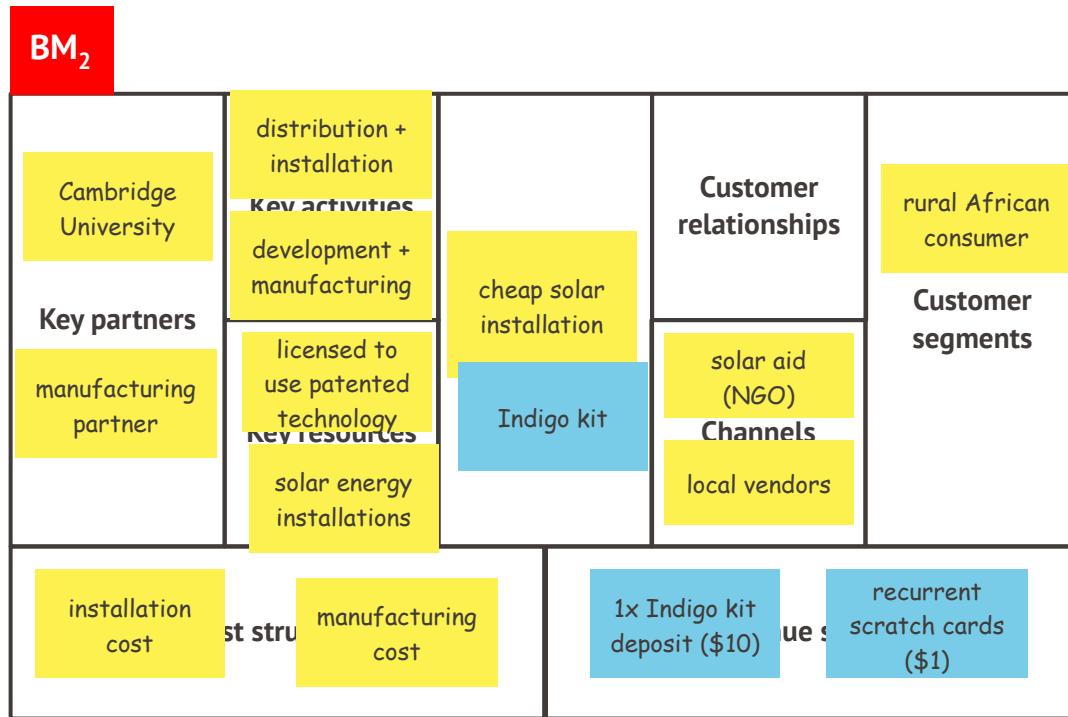


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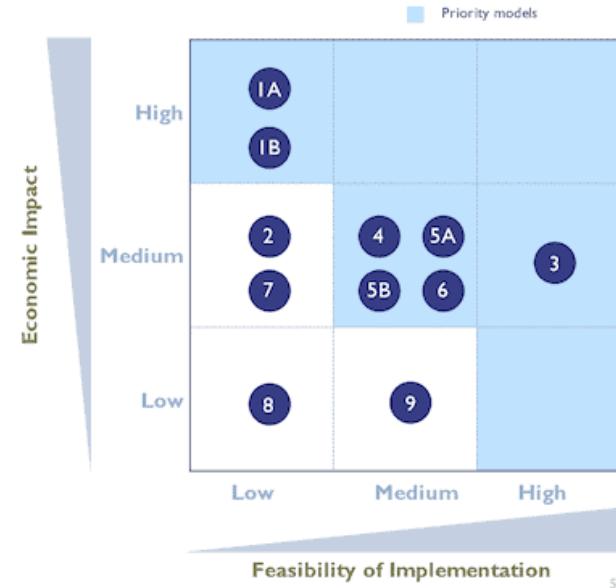
What does Azuri's VP look like for a customer?

- \$10 Buy the Indigo kit (solar panels, lamps, charger)
- \$1 Buy scratch cards, use SMS from a mobile phone, enter the resulting passcode into the Indo unit, and use the installation for a period of time (typically a week)
- “Free” Own your box after 80 scratch cards, or...
- Upgrade Escalate to a large system and access more energy; continue to buy scratch cards



		Operational Responsibility		
		Developer	Partner	Community
Credit Risk	Developer	1A Key Maker model 1B Processing Centre Model	2 Developer-funded External Operator model	3 Productive Use Appliance Funding (PUAF) model
	Partner	4 Facility Manager model	5A Off-taker model 5B Fee for service model	6 External Creditor model
	Community	7 Community-contribution Developer Operated model	8 Community-contribution Partner Operated model	9 Utility model

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- Source: <https://nextbillion.net/nine-business-models-productive-use-electricity-africa-framework-generating-profit-impact-off-grid-energy/>

Willingness-to-Pay

3 types of pricing

- Value-based: based on the customer's perceived value of the product/service
- Cost-based: based on manufacturing/production costs and a desired profit margin
- Competition-based: based on prices set by competitors in the market

Willingness-to-pay (WTP)

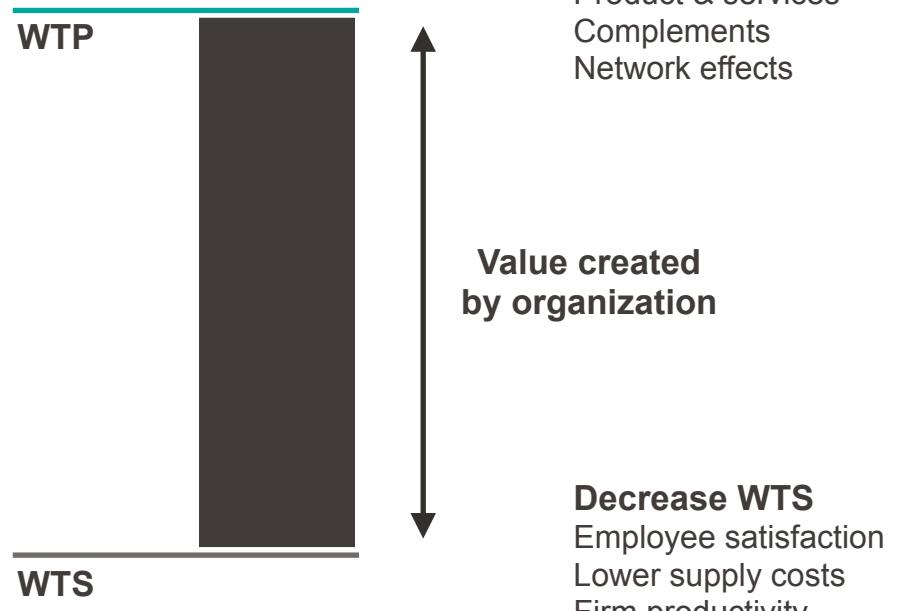
The maximum amount a consumer is ready to spend to acquire a good or service

Determining WTP for a charity

- Contingent Valuation (Survey-Based): ask potential donors directly: “What is the maximum amount you would be willing to donate to support this cause?” Use open-ended questions, payment cards, or bidding games
- Conjoint Analysis (Choice Modelling): present donors with different combinations of campaign features (e.g., impact, transparency, gift incentives), then analyze which combinations lead to higher donation preferences
- Field Experiments & A/B Testing: test different suggested donation amounts, donation formats, or messaging in real campaigns

Maximum price that customers would be willing to pay

Minimum price/wage that suppliers/employees would be willing to accept

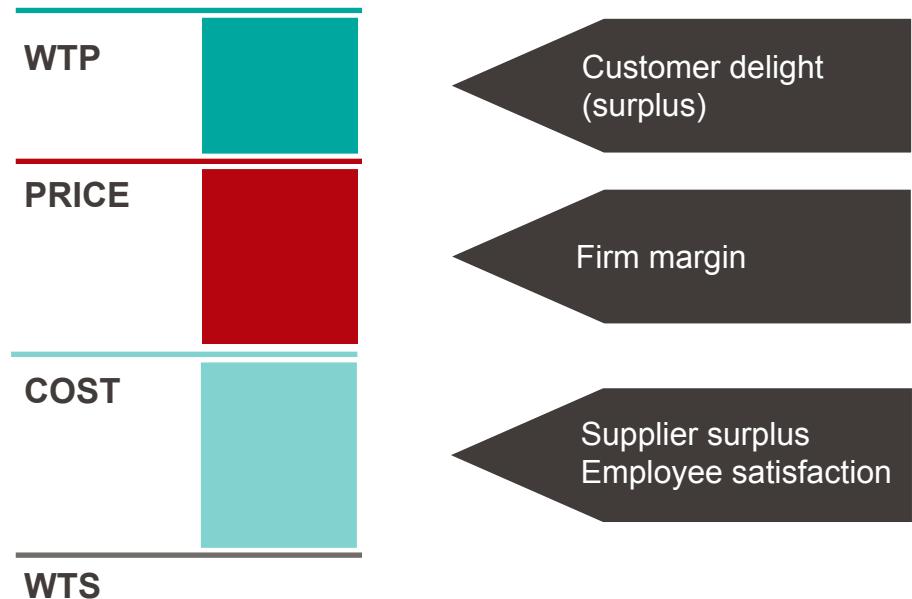


Maximum price that customers would be willing to pay

Customer price

Compensation/cost

Minimum price/wage that suppliers/employees would be willing to accept



Source: Oberholzer-Gee, F. (2021). Eliminate Strategic Overload. Harvard Business Review, 99(3): 88-97.

- A value proposition implies the creation of different **types of value**
- Value can be created for customers (B2C) or businesses (B2B)
- Value (propositions) should be sustainable

Value

Bowman and Ambrosini (2000, 2010) address the challenge of understanding the concept of value by distinguishing between **use value** and **exchange value**. The total value created by a product or service is defined as the sum of its use value and exchange value.

- *Use value*, also called consumer surplus, is associated with a product or service. It is defined by the *specific qualities perceived* by the customer about their needs and jobs addressed after deducing all costs. It is subjective and different from customer to customer.
- *Exchange value* is defined as the *price* a customer is willing to pay in exchange for a product or service. It is the *monetary amount* exchanged between the organisation and its customers for use value. In contrast with use value, which the customer defines, the exchange value is based on an agreement between two stakeholders, the customer and the organisation. Its upper bound is called *willingness to pay*.

3 types :

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The Value Creation Opportunity

When companies find ways to increase customer delight, employee satisfaction, and supplier surplus, they expand the total amount of value they create and position themselves for extraordinary financial performance.

