

Team Dafydd ap Llywelyn

Company - CDS

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Assignment Question

MSc International Innovation Management

Assessment A (25%)

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Module Learning Outcomes

Demonstrate a systematic understanding of the key elements that contribute to the successful gathering of market knowledge for the new product development.

Scenario

i. Background

You are NPD Manager of a Carmarthen-based SME which currently specialises in the manufacture of electronic breathalyser systems. The market for these devices is predominantly to police and security forces.

ii. A new product development project

Through a Knowledge Transfer Partnership with a local university, the Company has identified the possible commercial opportunities that may exist if the chemical alcohol detector system (which is at the heart of their breathalyser products) was adapted to cover the detection of other organic materials, including those generated in the breath as a result of various virus infections.

In light of the current Coronavirus pandemic, the Company can see great potential in developing a device that could meet both clinical and personal requirements. As the NPD Manager you're approaching the development of this potential CDS (Chemical Detector System) in an 'Open Innovation' manner – and presently have a series of small concurrent R&D projects being undertaken both in-house and in conjunction with your local university.

iii. Sources of marketing knowledge

As this product will take the Company away from its normal market sector, you're concern is the lack of market intelligence that you know will be essential in the development of this product.

Task: Sourcing Marketing Knowledge for the – development of a CDS (Chemical Detector System)

- a) Determine what marketing knowledge is likely to be required for the development of this new product.
- b) Present your findings from your sources of marketing knowledge, and apply this practice to the business in order to ascertain – what business are we in? what business(es) could we be in?
- c) You will be expected to include your interpretation of marketing sensing capabilities and market understanding and develop the definition(s) of value for at least one customer value proposition scenario.

What marketing knowledge is likely to be required for the development of new CDS product



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Business Model

- Sell CDS – single sale revenue; Product Pricing
- Lease out CDS – continued revenue stream

Potential Consumers

- Segmentation: Geographic; Demographic; Behaviour; Usage
- Consumer Types – Individuals; Hospitals; Companies; Hotel Industry; Cruise Industry; Airline Industry; Schools + Colleges; etc.
- Consumer Expectations – product acceptance market sensing
- Potential Sales Volumes – sales forecasting; lifespan of product in the market; planning production volumes

Product Development:

- VOC – KANO Model – understanding customer needs – ethnographic study
- Development of CTQ's ; DFM, DFMEA's
- Product Prototyping, Testing
- Productionizing – Awarding manufacturing contract; PFMEA, Quality Control
- Product Certification

Existing IP's

- Search Intellectual Property Office for existing Patents, Designs, and Trademarks related to the CDS
- Infringements

Marketing Channels

- Market CDS through Social Media; Webinars; Partnership with Government agencies
- Product Branding

Components Supply Chain

- Components Sourcing – supply contracts; supply logistics; supply price agreements; threat of currency fluctuation on commodity pricing

Distribution Chain

- Product availability: Pharmacies; Hospitals; Supermarkets; High Street; Post Office; Online Purchase

Substitute Solutions

- Potential substitute technologies developed by competitors
- Competitor Strengths and Weaknesses

Legislation Requirements

- Different laws in different jurisdictions/countries that may affect product standardisation

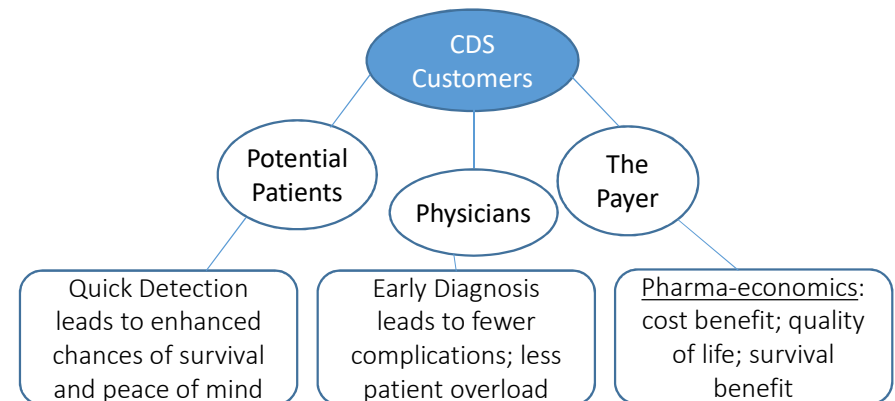
What marketing knowledge is likely to be required for the development of new CDS product

Product Value Proposition:

GOAL: Finding the reason why the CDS is so valuable to the customer that it makes them want to purchase it

- How does the target market benefit by using our CDS?
- What are the compelling points of difference between our CDS and competition?
- What are the features and benefits of our CDS that are of great value to our target customer?
- What value does potential competition or substitute products provide to the segments that we are interested in?
- What are the valuable points of differentiation between our CDS and the competitors' or substitute?

Value Propositions for Different Customer Types



What marketing knowledge is likely to be required for the development of new CDS product

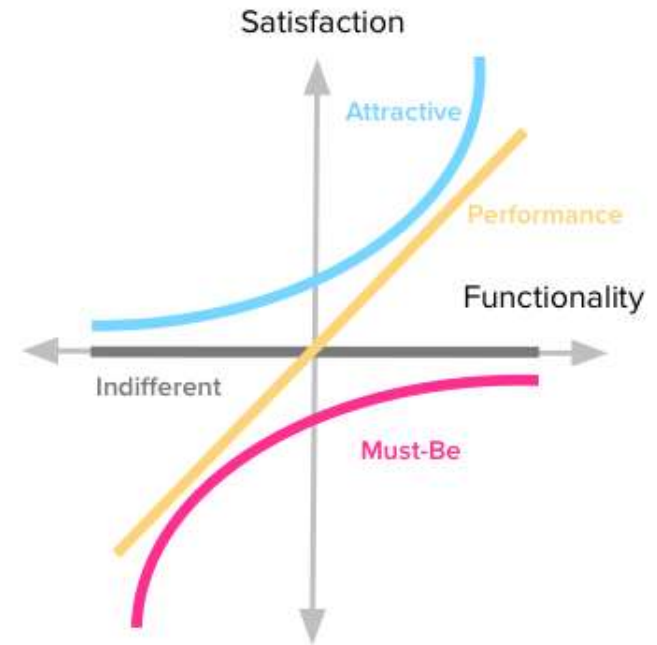
KANO Model: creating CDS product roadmap with the right features

GOAL: Determining our customers' satisfaction with CDS

- How do we measure satisfaction?
- How do we choose what to build in order to provide it?
- How do we go beyond satisfaction into delight?

FACT: Customers' Satisfaction with our CDS features depends on the level of functionality that is provided

	Features Classification:	Significance	Example
A	Performance Attributes:	- The more we provide, the more satisfied our customers become with the CDS	CDS Results Processing Time
B	'Must-be' Attributes:	- Basic expected features to make our CDS acceptable	CDS results accuracy
C	Delighters:	- Attributes that will make our CDS attractive	Device size - portability
D	Indifferent:	- The features that will not matter to our customers whether present or not	Decorative pattern on device



The Natural Decay of CDS Delights

We should note that the Kano categories of features are not static — they change over time!

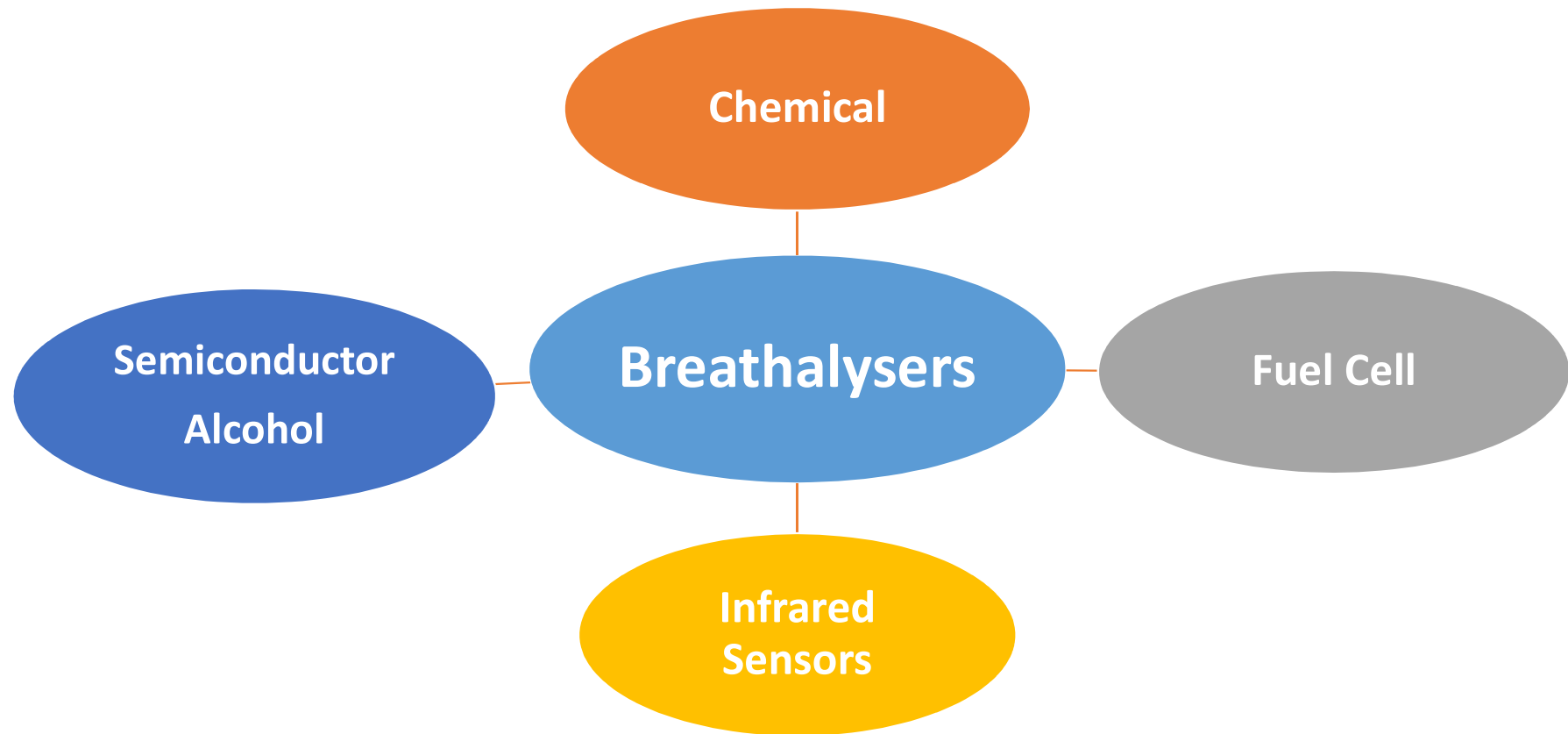
What our customers view as current attractive features on our CDS, will turn into Performance and Must-be features as time goes by. This disenchantment is due to many different factors, including technological evolution and the emergence of competitors, all vying to bring the same functionality after the first mover.

What marketing knowledge is likely to be required for the development of new CDS product

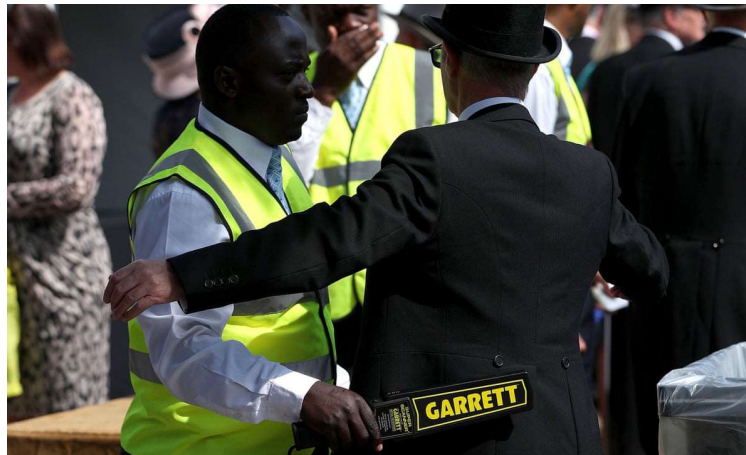
Product Characteristics

- Easy of use – simple 123 steps
- Test Results Interpretation - colour coded results system; Yes/No
- Accuracy – Test results confidence level, repeatability
- Results processing time – seconds/minutes/hrs/days
- Device size – portability – fits in the palm
- Accessories – replacement filters/filament/detector
- Disposal of used units/accessories – pollution + risk of CV spread
- Device Shelf – degradation of detector performance due to e.g. oxidation; UV exposure and other factors
- Environmental Factors on Device Performance – e.g. ambient temperature; alcohol presence in breath; etc.
- Calibration and Re-calibration Requirements

What business are we in?



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Breathalyser Test Results

- 35 or below = Suspect will not be charged
- between 36 and below 40 = Suspect should be released without caution or charge (*in serious cases, back calculation is considered*)
- 40 or above = Suspect will be charged accordingly
- unreliable results = Suspect may be required to provide an alternative specimen for analysis (*blood or urine*)
- breath testing device unavailable = Suspect may be required to provide an alternative specimen for analysis (*blood or urine*)

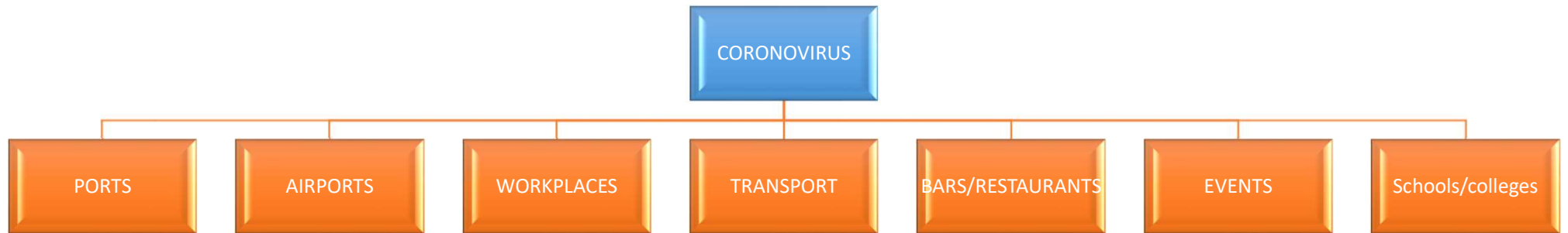
What business are we in?

Breathalyzer Market Share (%) By Application, (2016)

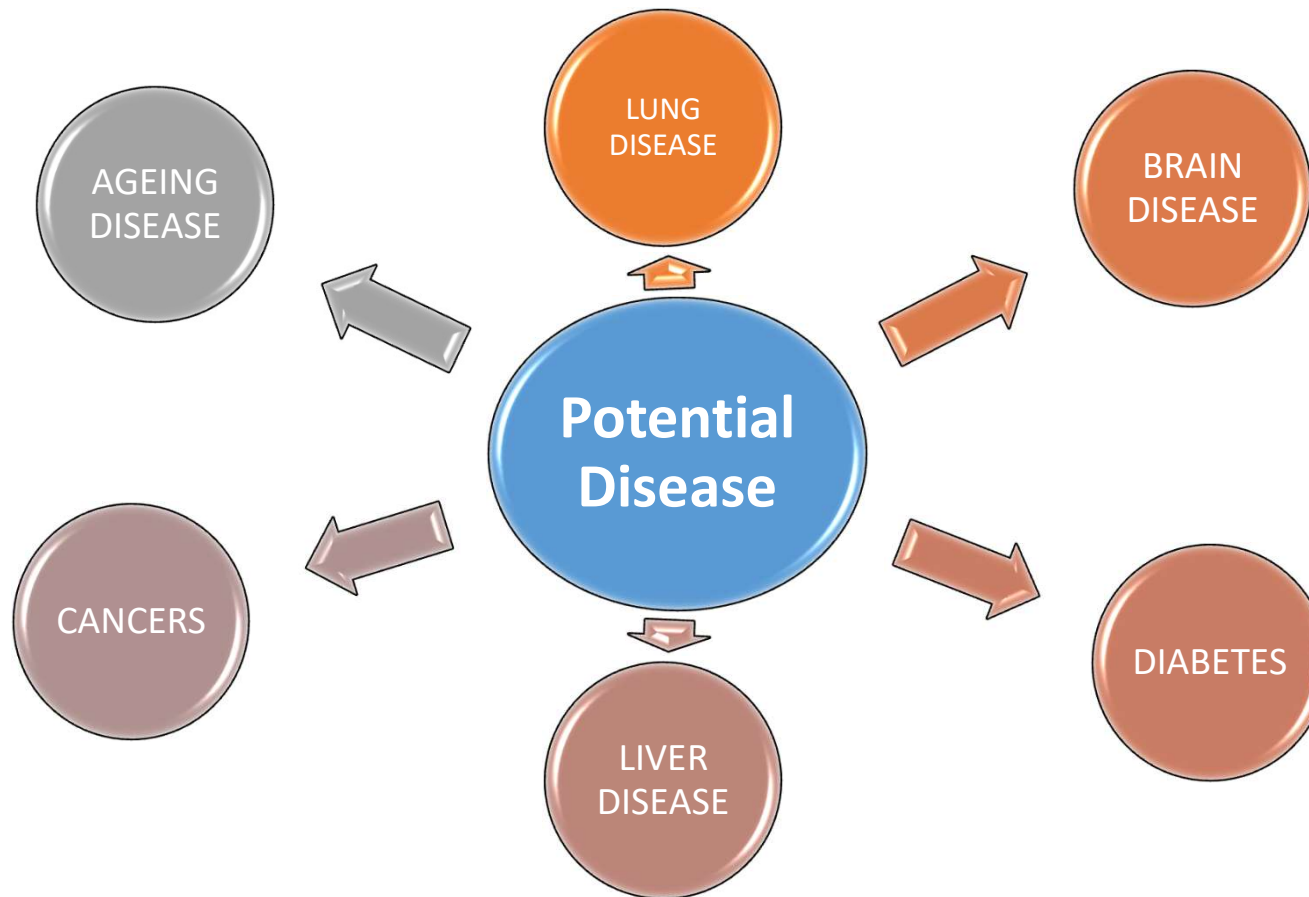


Source: Research Nester

What business(es) could we be in?



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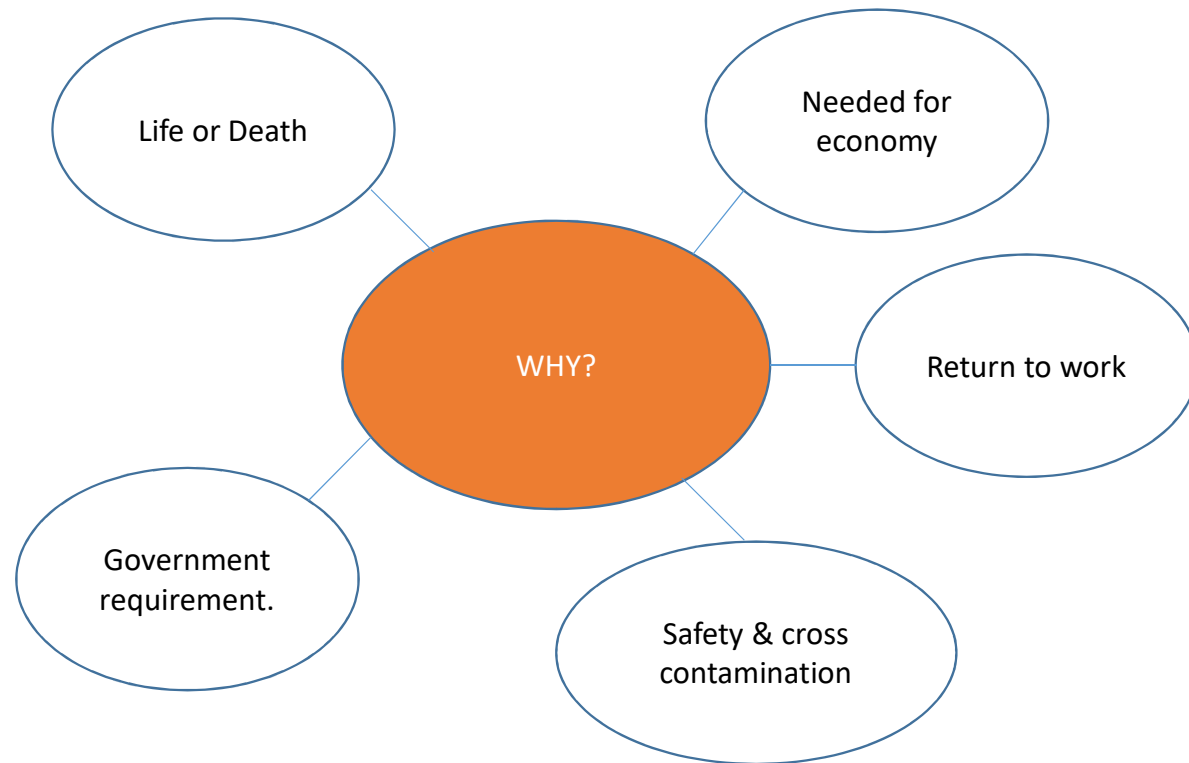


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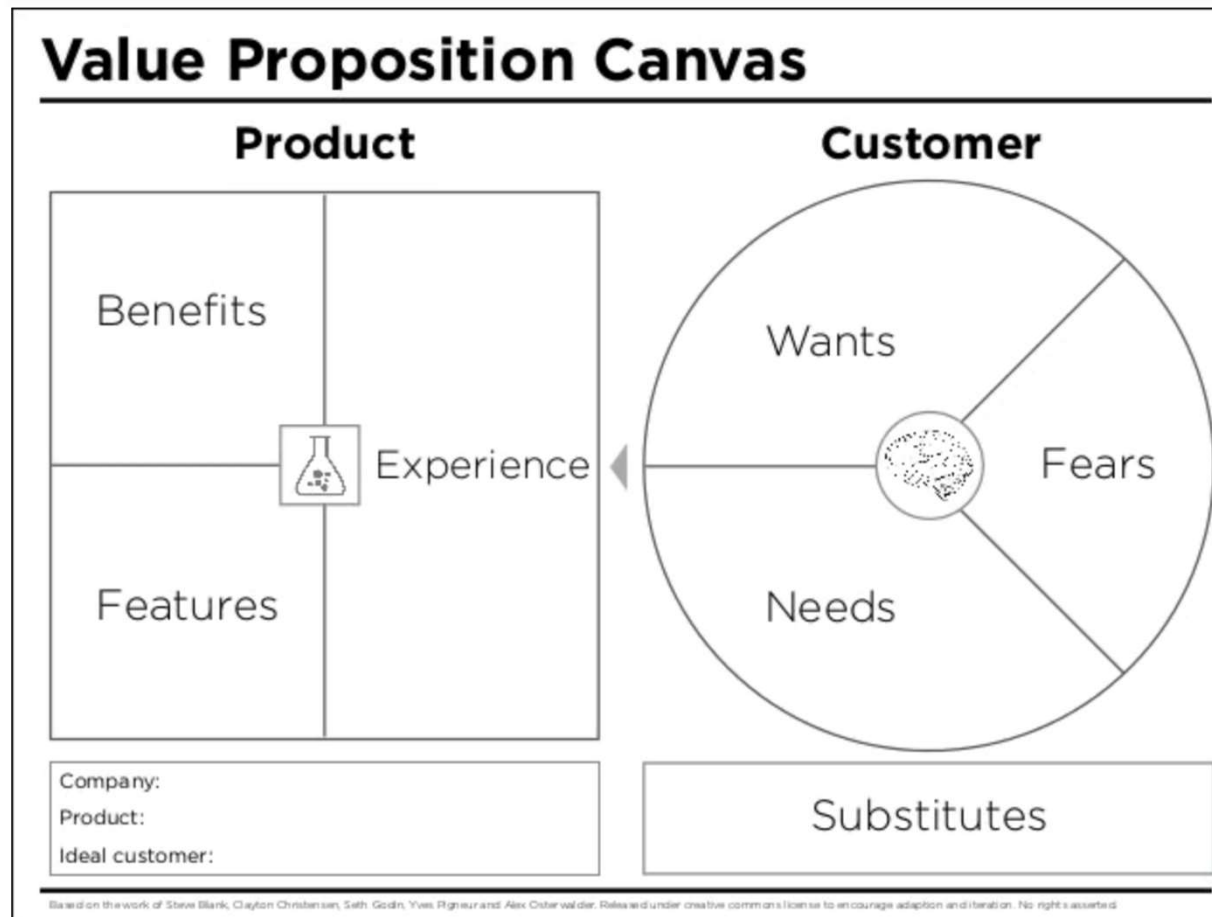
Potential Market Channels



Market Sensing Capabilities



Value Proposition Canvas



Value Proposition Canvas

