

# Market Research

Mixed Methods in Research Workshop Series

The Erdős Institute

April 2023



Welcome!

# Market Research

**Market Research** involves studying an industry to determine:

- What problems are facing the field
- How other companies have tried to solve these problems
- How your company can meet the need in a better way than your competition

The goal of market research is to **shape business development plans and product development**

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# User eXperience (UX)

**User Experience Research** focuses on the study of end users: the people actually using your product

- Analyzing the behaviors, requirements, and expectations of end users
- Focusing on a specific product or service
- Often digital products, such as apps or websites

The goal of UX is to **improve end user experience through the interaction with a product**

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# Consumer Insights

## Consumer Insights Research

focuses on the customer experience:

- Voice of the Customer (VoC)
- Loyalty behaviors
- Satisfaction over time

The goal of consumer insights research is to **understand customer needs, behaviors, and desires**

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# Research Types

## Primary Research

- Collect the data yourself
- Qualitative (interviews)
- Quantitative (surveys, experiments)

## Secondary Research

- Use existing data (industry research reports)
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# Market Research

# Market Research

- Shape business development plans and product development
- Examples
  - Vetting prospective customer segments (what demographics best suit your product)
  - Conducting market analysis (determining market size and trends)
  - Performing strategic growth analysis (increasing profitability)
  - Completing competitor analysis (brand and product analysis, SWOT)

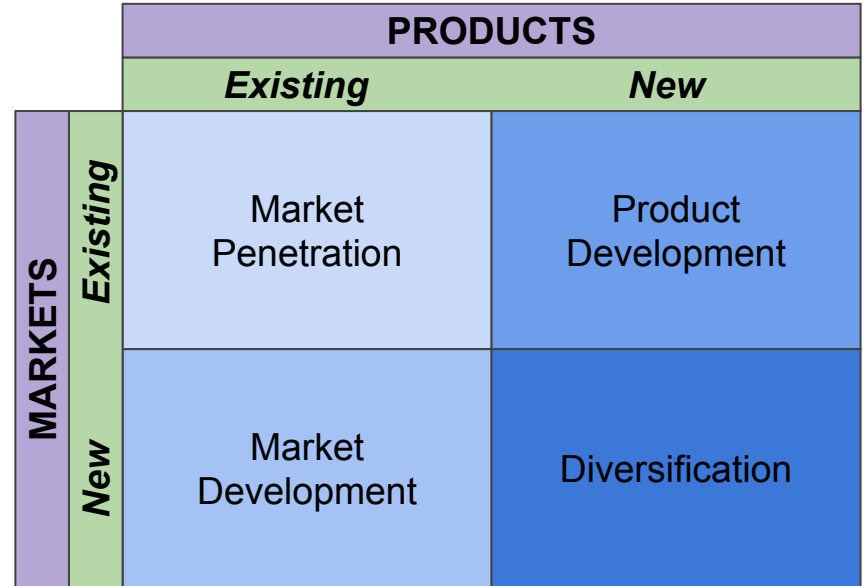




# Ansoff Matrix

Method to evaluate growth initiatives and risk

- **Market Penetration**
  - Increasing advertising
  - Changing pricing strategy
- **Market Development**
  - Opening stores in new locations
  - Targeting new customer segments
- **Product Development**
  - R&D for new products
  - Improving existing products
- **Diversification**
  - Clothing companies creating masks
  - Amazon buying Whole Foods



# Validating Market Opportunity

You work for a SaaS company that provides a platform for online courses. Your customers are primarily educational in nature and use your platform to provide technical training and lectures to students.

**You are considering branching out to offer a platform for online fitness classes. Your task is to conduct market research to determine whether this new product offering is viable and profitable.**



# Validating Market Opportunity

## Market Demand

*Is there a need for this product offering?*

- Industry trends
- Talk to current / potential customers
- Get feedback from front-line employees

# Validating Market Opportunity

## Market Demand

*Is there a need for this product offering?*

**You use Search Engine Optimization (SEO) tools to find web traffic relating to home workout themes over the last 5 years. You find that, even though some people have returned to in-person fitness centers in 2023, many still prefer to work out at home. Home fitness trends fell 50% from 2020-2021, but have stayed flat from 2021-2023 and are 200% more common than in 2019.**

**Furthermore, end users say that they'd pay an extra \$50 a month to your company in order to have home exercise videos.**

# Validating Market Opportunity

## Market Size

- Total number of potential customers and potential revenue
- Top-down – industry reports
- Bottom-up – data from early selling efforts
- Aim for projections for the next 3 years (growth / decline)

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### Adults in USA

100% of people 18+  
209,000,000

### Regularly Exercise

66% of all adults  
137,940,000

### Exercise at Home

30% of regular  
exercisers  
41,382,000

### Use Video Classes

75% of home exercisers  
31,036,500

### Workouts per Week

3x a week  
93,109,500

# Validating Market Opportunity

## Market Saturation

- The industry has produced the maximum need of products / services
- Once saturation occurs, there is no more demand for the products / services
- From competition – everyone who wants the product already has it
- No more customer need (fads)

# Validating Market Opportunity

## Market Saturation

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- No more customer need (fads)

**You use SEO tools and social media to uncover customer sentiment relating to other companies and find that, while many customers are happy with their current home workout courses, there is a market gap when it comes to yoga videos. You determine that you should focus on yoga videos.**



# Competitive Analysis

**Goals – find niche for YOUR product / service**


- **Core competency**  
Advantage you have over competitors (capabilities, skills, resources)
- **Unique selling proposition**  
Factors that differentiate you from competitors (cost, quality)
- **Benchmarking**  
Compare various aspects of your product with competitors

# SWOT

## Internal Factors

- **Strengths** – What separates your product from the competition  
*Assets, promoters, employee team*
- **Weaknesses** – Where you need to improve to stay competitive  
*Hidden costs, detractors, low performance*

## External Factors

- **Opportunities** – Factors that can help you  
*Market trends, demographics, world events*
  - **Threats** – Factors that can hurt you  
*Competitors, market changes, world events*
- 

# SWOT

<b>STRENGTHS</b>	<b>WEAKNESSES</b>
<ul style="list-style-type: none"><li>● Loyal customer base</li><li>● Unique online technology</li><li>● Proprietary video technology</li></ul>	<ul style="list-style-type: none"><li>● Weak brand</li><li>● High employee turnover</li><li>● Tech debt</li></ul>
<b>OPPORTUNITIES</b>	<b>THREATS</b>
<ul style="list-style-type: none"><li>● Capture a new market (fitness) with same customers</li><li>● Get people to use product more frequently</li></ul>	<ul style="list-style-type: none"><li>● Rising returns to gyms</li><li>● Increasing cloud costs</li><li>● Changing government regulations about fitness and health</li></ul>

# PESTLE

Way to assess how external factors can impact your company, product, or service

- **Political**  
*General political climate, international relations*
- **Economic**  
*Inflation, recession, currency exchange rates*
- **Social**  
*Changing lifestyle trends, demographic differences*
- **Technological**  
*Changes in vertical and company, trends (quantum computing)*
- **Legal**  
*Legislative changes (tax and employment laws)*
- **Environmental**  
*Carbon footprint of the cloud, recyclable product casing*

# Product Development

## Product Roadmap

- Identifies short and long term goals
- Outlines the direction, priorities, and timeline of product development

# Product Development

January				February				March				April			
W1	W2	W3	W4	W1	W2	W3	W4	W1	W2	W3	W4	W1	W2	W3	W4
Competitive Analysis				Business Objectives				Proof of Concept				Feasibility Study			

	Phase 1	Phase 2	Phase 3	Phase 4
Objectives	Assess market viability, size, share, and saturation	Showcase how your product addresses a market gap	Validate the need and value of the project	Confirm potential cash flow, barriers to entry, growth
Activities	SWOT PEST	Problem statement Proposed solution	Create sample product / service	Share prototype with test market, analyze feedback
Deliverables	Document detailing competition, submitted to product manager	Document with background, potential use cases, targeted personas, submitted to CPO	Minimum Viable Product (MVP)	Executive summary of feasibility analysis results and potential ROI



*Group Project*  
Product  
Diversification

You work for a coffee shop on a college campus, which is open from 6am-3pm. Your manager is considering expanding the shop by also selling alcohol and keeping the store open until midnight. He has asked you to conduct market research to figure out the viability of entering this new market.

**Work together as a team to determine market demand, size, and saturation. Write your proposal to the shop owner in a clear, concise, jargon-free way.**



# Deliverables

# Business Terms

- Businesses love acronyms

<b>Term</b>	<b>Meaning</b>
<b>B2B</b>	<i>Business to Business</i> – transactions with other businesses
<b>B2C</b>	<i>Business to Consumer</i> – transactions with consumers
<b>KPI</b>	<i>Key Performance Indicator</i> – quantifying the effectiveness of your business
<b>EOD</b>	<i>End of Day</i>

# Business Terms

- Academics have all the skills for a corporate role – they just use different terminology for the same thing


Term	Meaning
<b>A/A Test</b>	Pilot test
<b>A/B Test</b>	Simple experiment
<b>POC</b>	<i>Proof of Concept</i> – pilot project (showing that a larger project is feasible)
<b>White Paper</b>	Research report (like a journal article)
<b>Executive Summary</b>	Abstract (or short report)

# Communicating Business Objectives


## Deliverable

- Product or service delivered by the business
- *Internal* – for employees (training courses, itemized budget)
- *External* – for customers (sales deck, new feature)

## Stakeholders

- People invested in or impacted by the product
  - Investors, employees, customers
  - Data science team, product managers, C-suite
- 

# What goes in a deliverable?

- **Objectives**  
Benefits, outcomes, how they relate to business goals
  - **Background**  
Research showing the need for the project, the gap you will fill, barriers to entry
  - **Plan**  
Project design, project milestones, timeline (project phases), resources needed, budget
  - **Use cases**  
Target personas, clients, customers
  - **Definition of success**  
How will you know the project is successful and meeting its goals
- 

# What goes in a deliverable?

## Tips

- Be specific
- Show actionable insights / impact
- Show, don't tell
- Less is more
- Keep your audience in mind



# White Papers

- Authoritative written report on a specific topic (problem, solution)
- In depth, more technical, most academic
- Can be for internal or external purposes



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## Vocal Biomarkers for Mental Fitness Scoring and Tracking

*Fitness Tracking for the Mind*

Easy tools for tracking our steps, sleep, heart rate, and diet have become part of our daily lives. We intuitively understand that following these dimensions of physical health are important. Easy



Blog Publications Datasets Research Areas Podcasts

## Identifying New Podcasts with High General Appeal Using a Pure Exploration Infinitely-Armed Bandit Strategy

### Abstract

Podcasting is an increasingly popular medium for entertainment and discourse around the world, with tens of thousands of new podcasts released on a monthly basis. We consider the problem of identifying from these newly-released podcasts those with the largest potential

Gartner

## Reinvent Strategic Workforce Planning

Move beyond reactive plans to long-term strategic plans



## Even with more data, planning is falling short

According to our research, business leaders are not very confident in the conclusions drawn from HR data — only 8% of them say they trust talent data



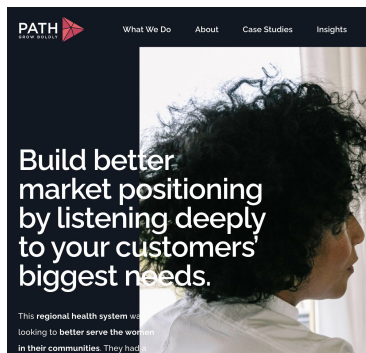
[Sonde Link](#)

[Spotify Link](#)

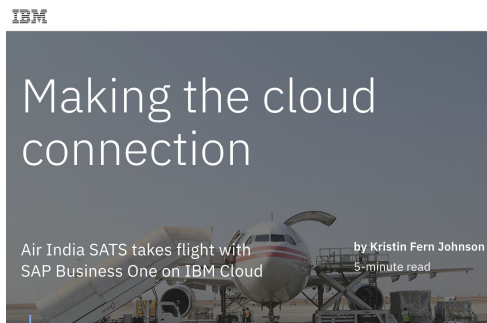
[Gartner Link](#)

# Case Study

- Report about a specific subject aimed to illustrate a business solution
- Shorter, more descriptive (less technical), focused on one use case
- Usually for external purposes, but can be internal (customer success)



[PATH Link](#)



[IBM Link](#)



[Analysis Group Link](#)



# Executive Summary

- Short document that summarizes a longer report
- Allow people (like executives) to understand a lot of material quickly
- Like an abstract – background, problem, proposed solution, analysis, implications, conclusions



# Executive Summary



Get Started

## Example executive summary:

In recent customer feedback sessions, 52% of customers have expressed a need for a simpler and cheaper version of our product. In surveys of customers who have chosen competitor watches, price is mentioned 87% of the time. To best serve our existing customers, and to branch into new markets, we need to develop a series of watches that we can sell at an appropriate price point for this market.

Our new watch series will begin at 20% cheaper than our current cheapest option with the potential for 40%+ cheaper options depending on material and movement. In order to offer these prices, we will do the following:

- Offer watches in new materials, including potentially silicone or wood
- Use high-quality quartz movement instead of in-house automatic movement
- Introduce customizable band options, with a focus on choice and flexibility over traditional luxury

Note that every watch will still be rigorously quality controlled in order to maintain the same world-class speed and precision of our current offerings.

With new offerings that are between 20% and 40% cheaper than our current cheapest option, we expect to be able to break into the casual watch market, while still supporting our luxury brand. That will help us hit FY22's Objective 3: Expanding the brand. These new offerings have the potential to bring in upwards of three million dollars in profits annually, which will help us hit FY22's Objective 1: 7 million dollars in annual profit.

Early customer feedback sessions indicate that cheaper options will not impact the value or prestige of the luxury brand, though this is a risk that should be factored in during design. In order to mitigate that risk, the product marketing team will begin working on their go-to-market strategy six months before the launch.

Cheaper and varied offerings not only allow us to break into a new market—it will also expand our brand in a positive way. With the attention from these new offerings, plus the anticipated demand for cheaper watches, we expect to increase market share by 2% annually. For more information, read our [go-to-market strategy](#) and [customer feedback documentation](#).

[Asana Link](#)

# Pitch Deck

- Presentation deck used to pitch ideas to an audience (e.g., investors, sales)
- Like a (short) conference presentation
- Should cater the pitch deck to the audience
- Many pictures, little text
- Tell a story



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**Problem / Vision**

**Market Fit / Opportunity**

**Team**

**Product / Service**

**Landscape / Competition**

**Financials / Sales Strategy**

**Traction / Value**

**Validation / Roadmap**

**Request**

# Project Charter

- Project summary
  - Goals
  - Stakeholders
  - Success metrics
  - Scope
  - Timeline (milestones, deliverables)
  - Resources
  - Responsibilities
  - Risks
- Owned by product managers

[Asana Link](#)



## Q2 Brand Campaign — Project Charter

**Project name:** Q2 Brand Campaign

**Project manager:** @Avery Lomax

**Last revision date:** April 5, 2021

**Project purpose statement:** The purpose of this project is to increase brand awareness in NAMER and EMEA through a digital brand campaign in Q3.

**Project objectives:** Launch display and video ads in Q3 to increase brand awareness in NAMER and EMEA.

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### Project scope

**Deliverables:**

- Landing page design
- Display ads (two variations for A/B testing), sized according to display spec sheet
- Video spots (6 and 30 second spots), sized according to video spec sheet

**Creative requirements:**

- Display
  - Shows logo and CTA throughout animation
  - Both static and HTML5 banners are needed
- Video
  - Features branding within first 5 seconds
  - Includes voiceover
- Landing page
  - Ads and landing page should create a consistent visual experience

**Out of scope:**

- Translating brand campaign assets

### Resources

- Brand design team (six people), 15 hours per week for four weeks
- \$50,000 media spend budget

### Stakeholders and approvers

- Project sponsor: @Daniela Vargas
- Approvers: @Kat Mooney, @Kabir Madan

# Dashboard

- Overview of data from multiple sources, often updated in real-time
- Allows stakeholders to analyze and monitor high level data points so they can make data-driven decisions
- Sales information, customer metrics, marketing performance, HR data, benchmarking
- Insights mainly presented as visualizations (graphs, charts, some tables)
- Often completed by data analysts or junior data scientists
- Software such as Tableau, Power BI, Quicksight



# Dashboard

## Quicksight

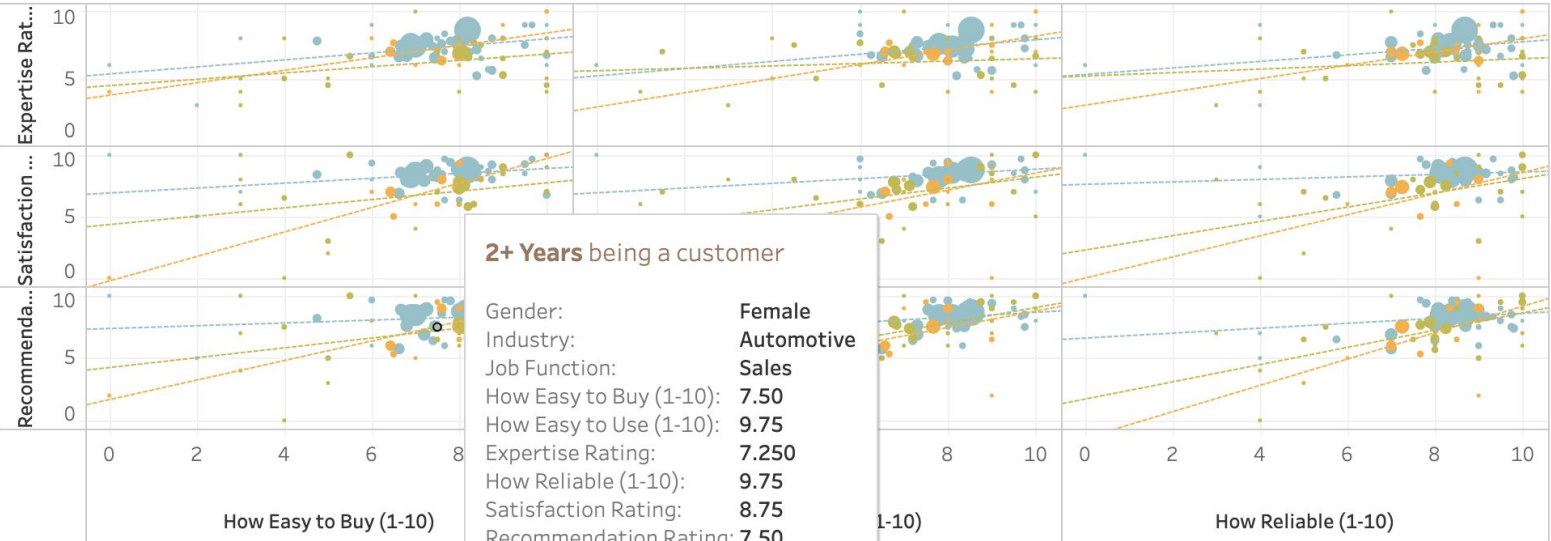


# Dashboard

Tableau

## Rating Correlations by Customer Segment

Job Function: Sales  
Industry: (All)



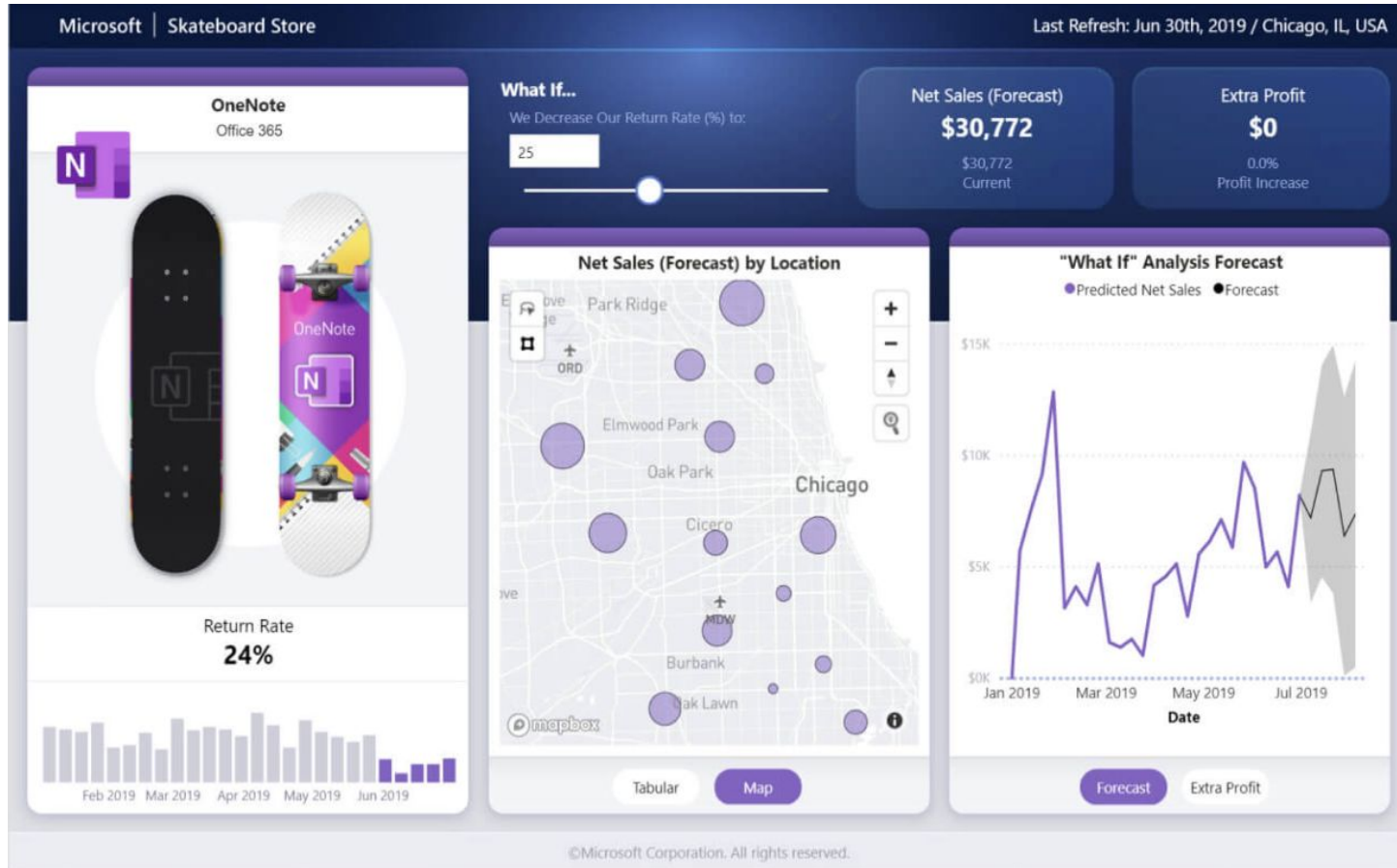
**2+ Years** being a customer

Gender:	Female
Industry:	Automotive
Job Function:	Sales
How Easy to Buy (1-10):	7.50
How Easy to Use (1-10):	9.75
Expertise Rating:	7.250
How Reliable (1-10):	9.75
Satisfaction Rating:	8.75
Recommendation Rating:	7.50
Number of Records:	4



# Dashboard

## Power BI



# MVP

## MVP = Minimum Viable Product

- Pilot version of a new product (or feature)
- Used to assess whether customers need and value the product
  - If customers resonate with the product, you can develop a more full scale version of the product for actual product release
  - If customers do not value the product, you can correct course by changing development plans or scrapping the project – without wasting the time of a full product development cycle



# MVP



PoC

MVP

MMP

## Proof of Concept

- Demo for product managers, CPO
- Used to show that it is theoretically possible to build a product or feature

## Minimum Viable Product

- Demo for select customers
- Used to validate that a product or feature customer meets customer needs and demands

## Minimum Marketable Product

- Demo for wider range of customers
- Used to show that the product or feature provides value

# Agile

- Structured project management framework
- Team based, especially in data science, software development, and engineering
- Iterative – work is completed in sprints
- Adaptable, simultaneous workflows
- Two types: Kanban, Scrum



# Kanban

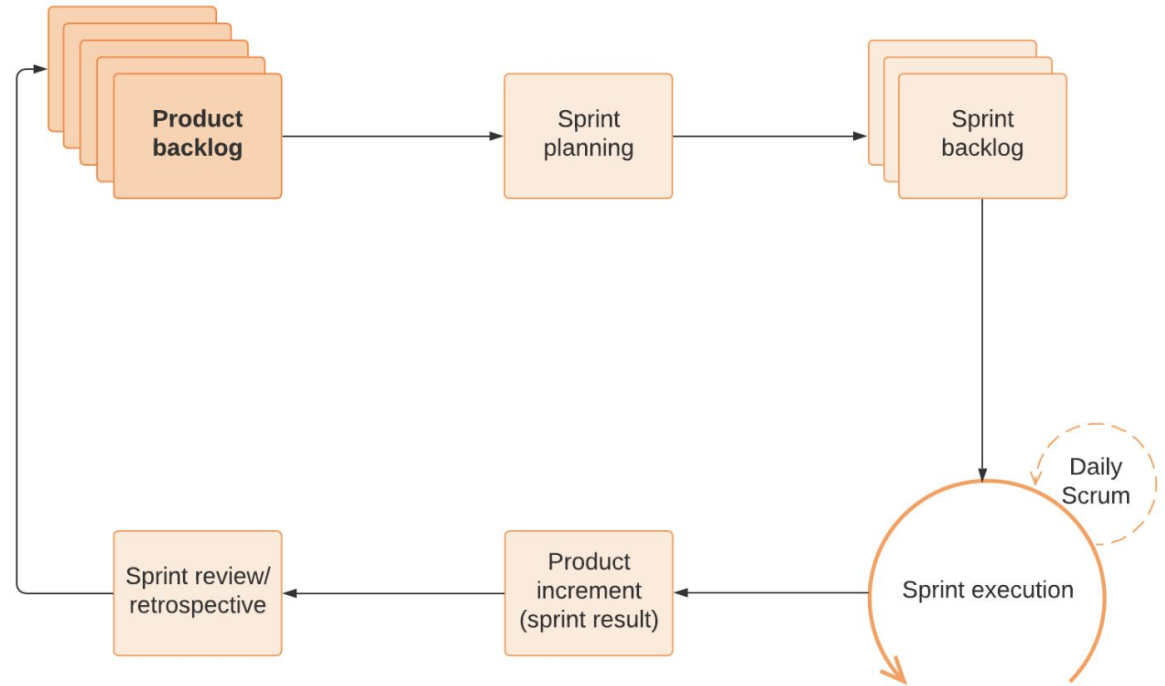
- Shows status of different work task (backlogged, in process, blocked, completed)
- Easy to find bottlenecks
- Work is limited to certain amounts (based on priority)
- Tries to improve the team's work continuously



[Lucidchart Link](#)

# Scrum

- Incremental approach: work is arranged into 1-2 week sprints
- Work for each sprint is planned before the sprint and is reviewed after the sprint
- Teams meet every day in “stand-ups” to discuss the prior day’s work, today’s plans, and any blocked items



[Lucidchart Link](#)

You work for a coffee shop on a college campus, which is open from 6am-3pm. Your manager is considering expanding the shop by also selling alcohol and keeping the store open until midnight. He has asked you to conduct market research to figure out the viability of entering this new market.

**With your team, create an executive summary of your market research. (You'll need to make up the data, of course!). Your executive summary should be no more than 1 page and include these sections:**

***Problem, Objectives, Project Description, Value Added, Target Market, Competition, Risk / Opportunity, Conclusion***

# So you want to be a market researcher...

- Create a personal website that includes portfolio projects – these can include projects from your PhD research or new side projects
- Rewrite the academic work in business style – turn a journal article into a white paper, an abstract into an executive summary, and results / implications sections into use cases
- Tips
  - Avoid all jargon a recruiter won't understand
  - Make it pretty





## Connecting the dots among the music of *Billie Eilish* & *Bing Crosby* with *ASMR*, *social media*, & the *coronavirus crisis*...



### Billie Eilish and ASMR

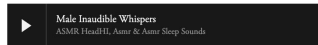
#### BILLIE EILISH SAMPLE



The music of Billie Eilish and Bing Crosby parallel some of the techniques used in recordings that aim to evoke **ASMR** (autonomous sensory meridian response).

ASMR has soared in popularity in recent years, with more than 2 million subscribers and 750 million views for a *single YouTube channel*.

#### ASMR SAMPLE



"ASMR is a sensory phenomenon, in which individuals experience a tingling, static-like sensation across the scalp, back of the neck and at times further areas in response to specific triggering audio and visual stimuli. This sensation is widely reported to be accompanied by feelings of relaxation and well-being."  
—Barratt & Davis, 2015

My colleagues and I theorize that the popularity of these “sonically intimate” techniques, especially among Millennials and Gen Z listeners, can be explained by the need for new methods of physical intimacy after the rise of social media. This theory suggests that during periods of isolation, like the mandatory quarantines and stay-at-home orders during the coronavirus crisis, the music of Billie Eilish and Bing Crosby can be especially appealing. Our work also could help explain why Bing Crosby’s music provided American listeners with a source of comfort during World War II.

IN SUPPORT OF THIS THEORY, RESEARCH HAS FOUND THAT ...

The sonic techniques used in ASMR mimic neural cues of physical proximity & intimacy. In other words, when people listen to these recordings, they feel the same sense of relaxation and pleasure usually associated with being near a close friend or family member!





# Thank You!

Contact Lindsay on Slack