

# Successful PD is no harder than winning a rally drive

- 1) Know where you're going
- 2) Know how to get there
- 3) Make sure the car and driver are good
- 4) Make sure you have enough gas

# Ready? Pedal to the Metal!



# 1) Know where you're going

#### » Be certain you're building the right product

Know the customer(s) and the needs you're addressing

- Voice of the Customer
- Value chain/web needs

Understand *Live and breath* the value proposition

- What do your customers get from you
- At what price

See all the constraints and boundaries

- Regulatory FDA, UL, CE, IEC, etc.
- IP FTO, protection
- Competitors





# Observational Research: Why can't we just ask them?

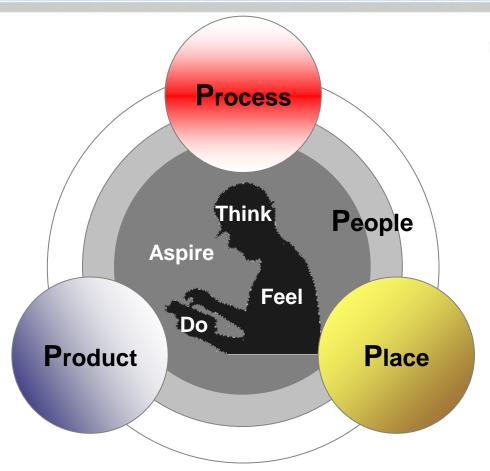
- 1. Knowing what you do People are generally highly unreliable reporters of their own behavior
- 2. Physical abstraction People are less likely to recall their feelings about intangible characteristics of products/services when they aren't in the process of using them
- **3. Human nature** People tend to give answers they think are expected or desired
- **4. Understanding what's possible** People can't ask for what they don't know is technically possible
- 5. Bounded by experience People's imaginations, hence their desires are restricted, they accept inadequacies & deficiencies in their environment as normal







### How can we ensure we see what we need to see?



### Use 4 P's to capture the 360° view

- Process the core thread
  - The stages from the appropriate start to the appropriate end provide a framework ensure coverage at each observation
- People
  - Understanding people interactions, responsibilities, work-arounds, etc. provide key insight
- Product
  - Understanding how the products impact on all the P's is critical to enabling targeted product improvement
- Place
  - Understanding how the environment impacts on all the P's is also critical to enabling targeted product improvement





#### **Unmet needs**

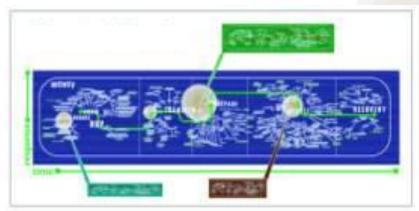
Day in the Life analysis provides a linear framework through which to

explore need spaces

- DiTL a linear framework through which to interrogate actions and discover needs
- A core technique for analyzing VoC research
- Map people, place, product, process
- Look for gaps, overlaps, synergies, causality



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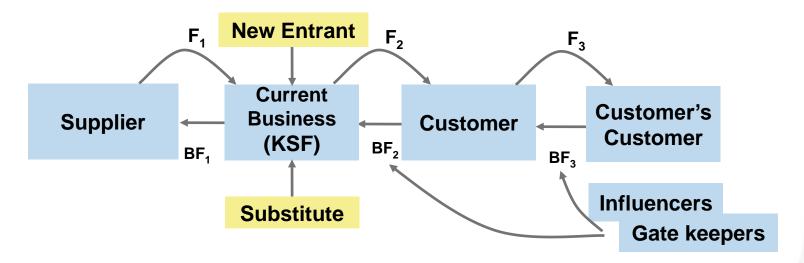
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# And don't forget, there is not just one customer!

A structured analysis of the value chain or web will identify breakthrough insights about how to improve products or change the basis of competition



#### **Functions purchased (F)**

What are <u>all</u> the functions being bought by each player? What are the "Jobs-to-bedone"?

#### **Buying factors (BF)**

How does each player in the chain make buying decisions?
What influences them?

#### **Key success factors (KSF)**

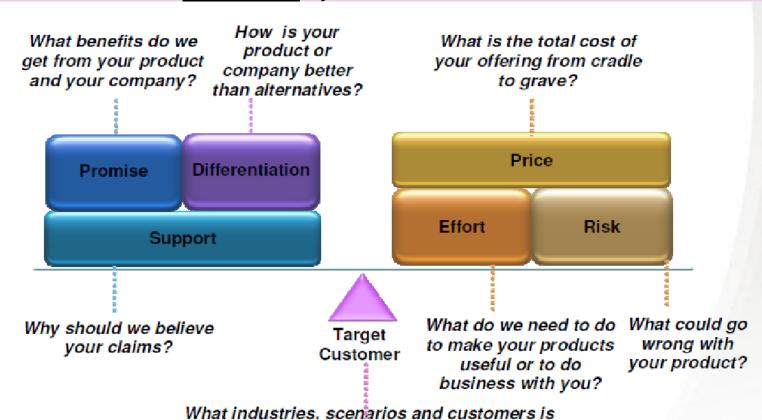
What are your own, and your competitors KSF? How can these be challenged or obsoleted?





### Understand Live and breath the value proposition

"The <u>potential benefits</u> of an offering for a <u>target customer</u> that outweigh the <u>total</u> <u>customer sacrifice</u> while being <u>differentiated</u> from available alternatives and <u>supported</u> by reasons to believe\*".





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your offering best designed for?



### 2. Know how to get there

#### » Use the right appropriate resources, processes and parts

- Unless you have a PD team who have done this many times before, enlist outside help – have a seasoned, battle-scarred member
- Outsource what you can, but...
- ...always have at least one person who is totally on top of it
- Don't switch horses concept through to manufacture, act II
- Find parts that are already being used and suppliers who are already using them
- Beware parts obsolescence





# 3. Make sure the car and driver are good

- » Is the engine (process) good?
  - Know process but don't be a slave to it FEI, NPD
  - Identify & retire risks early
- » Make sure the transmission is robust
  - Avoid bleeding edge technologies if you can
    - except where key to the product
- » Make sure the driver's driving, navigator's navigating, etc.
  - Don't meddle in each other's work
    - "don't let the CEO write code"
- » Make sure you outclass competition
  - Leverage IP
  - Build competitive barriers to entry

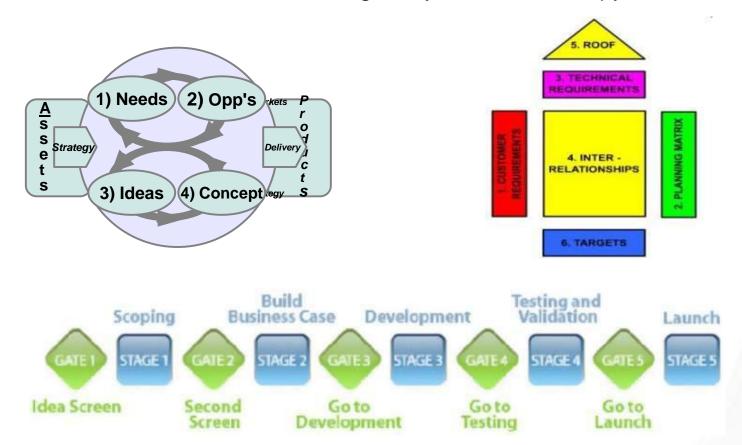




#### Process – not all a millstone!

#### » There is a reason that established successful companies have processes

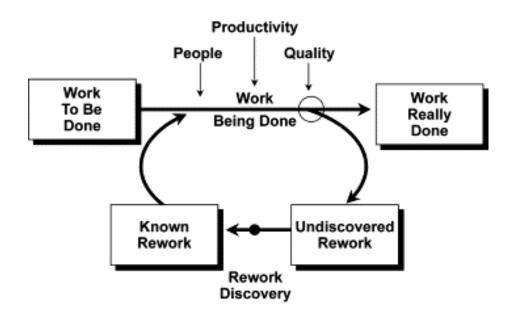
Learn from them; let them guide you, but don't copy them!







# **Unanticipated Rework kills!**



» Traditional project management focuses on people, productivity and quality

But what really kills is undiscovered rework

- · Retire risks early
  - Prototyping, tests, experiments.



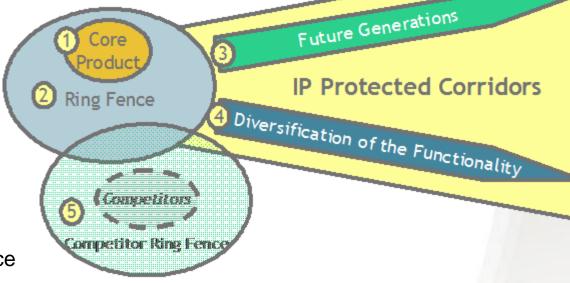


#### Leverage IP

- The time to start patenting is before the development, not after it.
- Protect IP at many <u>levels</u> to prohibit competitors.
- Robust IP strategy may require additional development work



- In a fast startup environment, someone else will have a piece of your puzzle
- Make sure you have a piece of their puzzle
- Trading IP is much cheaper than buying/licensing it!







## 4) Make sure you have enough gas

- » What is the biggest cause of failed innovations in corporations?
- » Biggest cause of failures in startups is running out of gas
  - So...be prepared for rework
    - Allow time & money (keep something back)
    - Set investors & customer expectations
    - Maintain morale

#### » Pointers

- Works in the lab != works in the field
- Budget 2x 3x planned development cost
  - don't skip design and test steps because lack of funds
- If a high volume product, do low volume run first
  - accept redesign or added cost if you have to
- Be realistic about volumes and ramp-up
- Don't skimp on final product testing





## 5) Don't get lost!

- » Don't try to be all things to all people
- » Keep focused on your identified niche
- » Don't muddy first product with every bell and whistle
  - Better to release act 1 and redevelop act 2
  - Understand what's "good enough"
  - Don't disrupt yourself before you even launch
- » Keep the team cohesive, coherent & connected
  - Feed the vision everyday (the value proposition model can help)
  - Make sure everyone knows and respects theirs and other's roles





# Highly effective teams have a diversity of thinking styles

#### If we all think alike then no one is thinking (Patton)



**Upper Left Analyze** 

> Logical **Analytical Fact-based** Quantitative

**Upper Right** 

Strategize





**Lower Left Organize** 

**Organized Sequential Planned Detailed**  Interpersonal Feeling based Kinaesthetic **Emotional** 

Holistic

Intuitive

Integrating

**Synthesising** 

**Lower Right** Personalize







#### **Contact Details**





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