

PLANNING: DISCOVERY DRIVEN PLANNING

Professor Ethan Mollick

Twitter: @emollick



Wharton
UNIVERSITY *of* PENNSYLVANIA

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Discovery Driven Planning

- Developed by Ian MacMillian and Rita McGrath: a way of building a steady-state “toy model” of your enterprise that takes into account uncertainty
- This variation has five steps:
 1. Start with a goal
 2. Map the operational steps for your enterprise
 3. Build a reverse income statement
 4. Benchmark assumptions
 5. Match milestones to assumptions

Our example: Better Desk

- Your second cousin, Jon, has asked you to help him plan his business. Jon and his wife Joanne have come up with a way of making a beautiful standing desk for people engaged in creative work (architects, software shops, media offices)



Step 1: Start from the goal

- Discovery Driven Planning means starting with your goal, what do you want your enterprise to accomplish?
- Any numeric outcome works:
 - \$100,000 in yearly profit
 - \$100 price for a drone
- For our example, let's assume that Jon and Joanne want to take home 15% more than they do today (\$138,000 in required profits)



Step 2: Map the operational steps for your enterprise

- Working backwards from delivering your product or service to your customer, what are the operational steps you need to go through?
 - You can use the assumption list we discussed earlier

Sell to
customer

Shipping and
returns

Manufacture

Order

Make aware
(Sales &
Marketing)

Step 2: Map the operational steps for your enterprise

- Translate these steps directly into operational specifications

MANUFACTURING COSTS

Raw material per desk

Delivery cost for materials per desk

Total material costs

Desk per day per production line

Production days per year

Number of lines

Equipment costs per production line

Total equipment

Depreciation rate

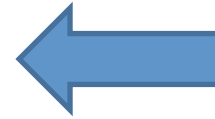
Total annual depreciation

Manufacturing staff per production line

Total manufacturing staff

Manufacturing employee salary (+ benefits)

Total manufacturing salary costs



Sell to
customer

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Make aware
(Sales &
Marketing)

Step 3: Build the reverse income statement

- Working backwards from your goal, put the operational steps into a working model.

Mr. & Mrs. Smith current income (salary & benefits)	\$	120,000	
Entrepreneurial markup: Required % increase in Smiths' income		115%	
Digital Desk total required profits	\$	138,000	
Digital Desk required ROS		10%	
Digital Desk required revenues			\$ 1,380,000
Digital Desk total allowable costs			\$ 1,242,000
<u>MANUFACTURING COSTS</u>			
Raw material per desk	\$	120	
Delivery cost for materials per desk	\$	10	
Total material costs			\$ 398,667
Desk per day per production line		10.0	
Production days per year		250.0	
Number of lines		1.2	
Equipment costs per production line	\$	150,000	
Total equipment	\$	184,000	
Depreciation rate		10%	
Total annual depreciation			\$ 18,400
Manufacturing staff per production line		6.0	
Total manufacturing staff		7.4	
Manufacturing employee salary (+ benefits)	\$	35,000	
Total manufacturing salary costs			\$ 257,600

Step 3: Build the reverse income statement

- Working backwards from your goal, put the operational steps into a working model.

Numerical Entries in green are assumptions – numbers we are estimating. Numbers in regular text are calculated from the assumptions

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Step 4: Benchmark your assumptions

- For each assumption, figure out a benchmark based on your best research of competition

MANUFACTURING COSTS

Raw material per desk	\$ 120		4	Phone calls with suppliers (Hardware.com)
Delivery cost for materials per desk	\$ 10		5	Phone calls with suppliers (Hardware.com)
Total material costs		\$ 398,667		
Desk per day per production line	10.0		6	CN equipment supplier specification
Production days per year	250.0		3	Industry standards
Number of lines	1.2			
Equipment costs per production line	\$ 150,000		7	CN equipment supplier specification
Total equipment	\$ 184,000			
Depreciation rate	10%		8	Industry average (from accountant)
Total annual depreciation		\$ 18,400		
Manufacturing staff per production line	6.0		9	Competitors (Desk4You)
Total manufacturing staff	7.4			
Manufacturing employee salary (+ benefits)	\$ 35,000		10	Competitors (Desk4You)
Total manufacturing salary costs		\$ 257,600		

Step 4: Benchmark your assumptions

Assumption #	Item	Value	Source
1	Entrepreneurial markup: Required % increase in Smith	115%	This is an individual assessment. If this were for another business, it might be required margins per product
2	Direct sales price (per desk)	\$ 450	Same prices as comparable products (Staples, Office Depot)
3	Number of business days per year	250.0	Industry standards
4	Raw material per desk	120.0	Phone calls with suppliers (Hardware.com)
5	Delivery cost for materials per desk	10.0	Phone calls with suppliers (Hardware.com)
6	Desk per day per production line	10.0	CN equipment supplier specification
7	Equipment costs per production line	\$ 150,000	CN equipment supplier specification
8	Depreciation rate	10%	Industry average (from accountant)
9	Manufacturing staff per production line	6.0	Competitors (Desk4You)
10	Manufacturing employee salary (+ benefits)	\$ 35,000	Competitors (Desk4You)
11	Marketing costs as % of sales	5%	Estimate

Step 5: Match milestones to assumptions

- Assumptions need to be tested.
- Key assumptions need to be tested first
- Key assumptions are those that have high uncertainty and large business impact
- Find key assumptions:
 - As part of doing the DDP and discussing it with your team
 - By doing sensitivity analysis (move numbers in ranges, see what happens to your model)
 - By looking at the list of assumptions you generated in your earlier exercise

Step 5: Match milestones to assumptions

- Milestones are moments in your business where you get real world feedback on your work
 - Customer interviews
 - Prototypes
 - Start of production
- Key milestones are the ones that test the most assumptions
 - Never allow an assumption to enter your plan without a milestone to test it.

Milestone #	Milestone	Method
1	Market study	Gather as much market data as possible. Purchase market research. Survey customers.
2	Trial production batch	Build 5 desks that might be similar to final product using production techniques.
3	Mock-up of sample desk for focus groups	Take one trial desk and finish it to high standards. Show to focus groups.
4	Simulation of sales and marketing	Perform some initial sales calls to judge response, use marketing taglines.
5	Trials by limited number of outside users	Deliver one-off desks to initial customers at discounted price, gather user data.
6	Recruit manufacturing staff	Hire production staff
7	Recruit sales & advertising staff	Hire sales team
8	Major marketing campaign for launch	Engage in prelaunch advertising and marketing.

Match milestones to assumptions

Assumption / Milestone								
	Market study	Trial production batch	Mock-up of sample desk for focus groups	Simulation of sales and marketing	Trials by limited number of outside users	Recruit manufacturing staff	Recruit sales & advertising staff	Major marketing campaign for launch
Entrepreneurial markup: Required % increase in \$								
Direct sales price (per desk)								
Number of business days per year								
Raw material per desk								
Delivery cost for materials per desk								
Desk per day per production line								
Equipment costs per production line								

Step 5: Match milestones to assumptions

- Sequence (milestone) events that will minimize cash burn while you are learning
 - Find ways to minimize investments and commitments until critical assumptions have been tested
- Manage to milestones... And avoid pitfalls!
 - During the on-going operations of the venture, go back to your Milestone / Assumption Planning Chart and check the validity of your planning
 - Revised plan / activities
 - No more than 30 milestones and 30 assumptions or NEVER replan

DDP can be a critical planning tool

- Gives you a quantitative tool for analyzing your enterprise
- Lets you get real numbers to test
- Forces you to think in terms of assumptions, and focus on reducing risk at the lowest cost
- Gives you options:
 - Speed up/slow down
 - Pivot
 - Exit



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