

SmartUp Academy

Foundations Course

Lecture 7

Growth Engines

First of all, welcome to Lecture #7.

As you recall, I promised you 13 lectures, so this is where we're crossing the middle.

The SmartUp Founding Team



SmartUp
Academy



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Here's the usual introduction: myself [Yonatan Stern], Libby, Ayala, and Ruthie, whose picture is not on the screen.

SmartUp Academy

A program to teach the **profession** of building successful companies (...work in progress)

- The Foundations Course
 - The three pillars for a successful company:
 - Profitable
 - Fast growing
 - Modest investment
 - Workshops – Specific Subjects
 - **4-5 years Residency Program**



THE SMART WAY TO BUILD A STARTUP 3

So, what is the SmartUp Academy?

I always repeat this: **our purpose is to teach the profession of building a company.**

I believe we can teach people—entrepreneurs—how to build a company; that there are principles, very much like in any engineering profession, that you can teach.

As entrepreneurs, many of the problems you face or are going to face have been encountered before, and there are solutions for them. What we try to do here is expose these issues in advance and teach you how to deal with them.

This is called the Foundation Course. The first thing we want to tell you is what we consider a “successful” company.

We have **three principles for a successful company**:

First and foremost, it should be **profitable**.

Second, it should be **fast-growing**.

Third, it should have a **modest investment**.

A company that raised \$50 million and was sold for \$30 million is not a huge success even though the Exit was \$30 million. What we're trying to show is how you build a company with a relatively modest investment.

What is a **modest investment**?

Anywhere from a few hundred thousand dollars up to 3-5 million dollars. This is called, in today's parlance, a "pre-seed," which is kind of ridiculous.

We also offer workshops that deal with specific subjects. The most important thing about the workshops is that I can teach whatever I want.

But I can give lectures, I can send materials, and the moment you face a problem, you'll likely forget everything I said. You're going to do what your gut tells you to do—that's life.

So, I believe the only way to learn is by practicing. To represent that, I've used this picture of doctors.

This picture reminds everybody that they're not going to go to any doctor who just finished Med School after six years—even if they're on the Dean's List—but have never seen a patient.

You would avoid a doctor like that until they've spent 3-5 years working in a hospital. Even then, really you would like to speak to the head of the department because they have 20 years' experience.

Since we are midway through the lecture series, I thought I would give a quick summary of the previous lectures. I'll do it very quickly and if we have time at the end, I've taken two or three slides from each lecture so I can speak a little bit more about what we have learned in the last six lectures.

Here, we'll just touch on it.

Foundation Course

Previous Lectures

1. The Venture Capital Model compared to the SmartUp model
 - What is a Venture Capital firm and how they work
 - An Exit in 7 years or Profitability
 - The Infinite Game
2. Branding First – The concept
3. Branding First – How
 - SEO Long Tail
 - Repetition - Absolut Vodka
 - Thought Leadership – Gartner Magic Quadrant
 - Inc. 5000 – competition

The first lecture was about the **Venture Capital Model in comparison to the SmartUp model**.

I think the core of what a lot of people believe a startup should look like comes from what VCs need in order to get a return on their investment.

We spoke about how the money flows in a Venture Capital firm. We explained why they need/must have an Exit within a relatively short period of time, which is about seven years with maybe a small extension.

In working with us at SmartUp, we're talking about a very different target which is profitability. We're discussing the **Infinite Game**—not Exit. We want people to build their company for as long as they want without any outside constraints.

In the second lecture, we spoke about **Branding First**.

The idea there was that **before you start developing the product**—before you invest anything in R&D or anything else—**try to make sure that people have heard about you, know something about you, and that your name is out there**. We spoke about

how to do that in the following lecture.

In the third lecture we discussed **SEO long tail and repetition**.

The idea is that you have to be out there; that people know about you. We brought in the advertising of Absolut Vodka, which I think is the hallmark of repetition. They had, like, 3,000 ads—all different from one another, but all had the same theme.

We also talked about **Thought Leadership** which is how Gartner built their brand and the Gartner Magic Quadrant. We spent quite a bit of time on it. We also talked about the competition by the Inc. 5000 and how they build their brands around the competition.

So, there are many ways of building a brand and we covered it in the third lecture.

Foundation Course

Previous Lectures

4. Business Model spreadsheet and targets
 - Number of months to Profitability
 - Investment needed
 - Number of months to repay investment
5. Business Model – Pricing models
 - Different pricing for different market segments
 - Pricing depends on positioning
 - Strive for premium prices – profitability

The fourth lecture was about **Business Models**.

What we did is we built a spreadsheet—basically a business model is a spreadsheet—that looks at the income (the revenues) and the expenses and that the difference between them is hopefully profit. In the beginning, it's probably a loss.

We also tied the **three principles** (i.e., be profitable, grow fast, and small investment) to three measurements in the business model:

- 1. The number of months to profitability** or how fast you can become profitable.
- 2. The investment you need**, which obviously correlates to the investment.
- 3. The number of months required to repay the investment.** So, if you raise \$2 million, when do you generate enough profits to pay back the \$2 million?

I know that it sounds like heresy for tech companies/startups to return the money, but in reality, in every other normal business, when people give you money, they want it returned.

If you invest in real estate, the first question you ask is, 'When can I get my money back?'

It's just that the venture capital/high-tech bubble lives in a very different universe.

[From the audience]: What do you mean by return? Dividends?

I mean that you generate enough profit to cover the expense. If you really return the investment or not, it's actually a different question.

[From the audience]: So how do you measure it?

Profits. Just accumulate the profits.

Obviously, **if the top line is revenues, then the question of Pricing Models is critical.** In the fifth lecture, we discussed several ways in which you can change the price.

1. Different market segments: usually, you can charge very different prices; you just need to be smart about how you differentiate market segments. This depends on the positioning. Do you want to go and be upstream? Do you want to go after businesses? Do you want to go after individuals?

Our recommendation is because you want to be profitable, it's much easier to be profitable when you charge \$100,000 than if you charge \$100—but obviously everything has to change if you want to charge \$100,000.

Foundation Course

Previous Lectures

6. Jobs To Be Done

- Functional – what is the specific job customers want to do
- Contextual – in what context does the need arise
- Emotional – what are the emotional aspects involved in doing the job
- Social – what are the social aspects of fulfilling the job

The sixth lecture was about **jobs to be done**, and we talked about the four dimensions by which you can analyze and measure what is the job to be done:

1. **Functional:** what is the specific job the customer wants to do?
2. **Contextual:** in what context—when do they want to do it? Where do they want to do it? Why do they want to do it?
3. **Emotional:** many times, there is an emotion attached to purchases. Why do people buy dresses or watches or cars? It's a status symbol—they want to feel good about it.

The same goes for **4. Social**.

What is a Growth Engine?

- A Growth Engine is a process
- That the company does, or plans to do
 - Many times
 - Repeatedly
 - In any part or activity of the company. Like:
 - Branding
 - Marketing
 - Manufacturing
 - Sales
 - Accounting
 - Customer support
 - Recruiting
 - Etc. etc.



Today, I want to talk about a whole different concept, which is a **Growth Engine**.

What is a Growth Engine?

A Growth Engine is a process that a company does or plans to do many times and repeatedly. It's not a one-time process; it's something that you do as part of the company's operation.

It can be in any part of the company. So, whether it's branding, marketing, manufacturing, sales, accounting, customer support—you name it—there is a process somewhere.

What I want to talk about is what is a Growth Engine in each one of those.

What is a Growth Engine?

- A Growth Engine is a scalable process that
 - You can double its Output
 - With a small increase in Input (efforts and investments)
 - It is not linear, a small increase in Input can yield a large increase in Output
- Growth Engines are keys to accomplishing the goals of:
 - Profitability
 - Fast Growth
 - With modest investment

A Growth Engine is a **scalable process**.

What do I mean by **scalable**?

Scalable means you can double the output with a very small increase in the input. The input is effort or money or whatever you want to do.

A linear method is that if you want to double the output you double the input. It's linear.

I avoided calling it exponential. However, it's clearly something that with an initial investment, you build some infrastructure, and then you can get a much higher output because you have the infrastructure. We'll see several examples of this throughout this presentation.

The Growth Engines are critical to accomplishing the three targets that we want (i.e., profitable, fast-growing, with a modest investment). If you build your company without thinking about the concept of a Growth Engine, chances are you will never accomplish these things.

It's a mindset more than anything else. You have to do a job; it's repeatable; it's happening all the time.

Spend the time to think about how you can do it more efficiently. "More efficiently" means scalable: you need to do it 10 times bigger but don't want to increase the expense 10 times.

What is NOT a Growth Engine?

- Many processes in a company are viewed as growth opportunities, but they are not Growth Engines, because they are not scalable:
 - Strategic partner
 - Very large customer
 - Important distributor
 - Critical tradeshow
 - Writing blogs, writing articles, issuing press releases
 - The next big feature in the product
- Company attention must be focused on identifying and building Growth Engines in every part of the company

I want to talk about processes people think about because of the word “growth.”

These are tempting to think about, so I call them **Growth Opportunities** because they're not really Growth Engines.

I hope that by giving you this list, you will start seeing the distinction between Growth Engines and other things.

1. Strategic partners: you have a startup company, and suddenly you get a phone call from a big company, and they say, ‘We heard about what you do. We're really interested, and we want to talk to you as a strategic partner. We want to do something together.’

Is that a Growth Engine?

The answer is no. It's a one-time event; it's not scalable; and, in most cases with a strategic partner, it's the fly telling the horse, ‘Look at how much work we do.’

Strategic partners usually are a mismatch to a small company, so don't waste your

time on them.

2. Very large customer: it's tremendously tempting to spend all the effort on a large customer.

The problem with a very large customer is that unless you're a much bigger company, you only have one, so it's not scalable.

Additionally, they know they are very large customers, so they basically own you because they're dragging you around, and they suck your resources. Don't call those Growth Engines; it's not an engine.

3. Important distributor: you're doing something, and you get a phone call from India, and somebody tells you, 'I'm the biggest distributor of XYZ things in India and I heard good things about you.'

Stay away from that; it's not an opportunity. He's calling you because he's in distress.

[From the audience]: It's an opportunity for me.

Maybe, yeah. But I'm just saying—because I've seen it time and again with companies—they come in, they're excited, and they tell me they got this phone call and 'Wow!'

No, it's not "Wow." That's not a Growth Engine.

4. Critical Tradeshow: I don't know how many of you were in a company, but in most companies, there is a huge trade show annually (or twice a year) for the specific things that you do.

Often, your VP of Marketing tells you, 'We have to be there because if we are not there it's a statement that we are a total failure. We have to be there, and the booth costs \$100,000 and sending the people is another \$50,000, etc. It'll cost a quarter of a million dollars but it's really important for us to be there.'

The answer is there's better use of a quarter of a million dollars. You can go there as a visitor. You can spend \$500 and enter the hall.

But why not?

Because it's not scalable—even if it was successful, you can't do another one the following month, you just can't. So it's irrelevant, kind of.

I'm really digging into it just to give you a sense of what is scalable and what is a Growth Engine.

You can turn a Growth Engine on and on and on versus things that are one-time or just noise—even though they look so important.

5. Marketing: so, you hire a VP of Marketing, and they pull out their plan, which is the same plan they used in the last company and the last two companies and the last three companies and in the last four companies.

It's the same plan: we're going to put blogs on the internet; we're going to write articles; we're going to issue press releases; and most importantly, when a new VP arrives, they change the logo.

I have about ten different logos for ZoomInfo because every VP of Marketing that came in changed the logo.

I didn't let them, but the logo looked like a sun with a lot of rays, and each VP of Marketing took out one ray. We started with 11 and I think we ended with seven—just so that they felt that they did something.

Why is it not a Growth Engine?

It's not a Growth Engine because the other side doesn't look at it. You can write as many press releases as you want—nobody reads them. It's that simple.

It's really difficult to write interesting blogs, and after you do two or three of them—unless you're a phenomenal writer—most companies produce two or three good ones, and then they stop. It's just hard to do good, interesting, and innovative writing every week or every month.

The same goes for articles.

So, these are not a Growth Engine because they're very hard to sustain. It's not the end of the world, but it's very hard; very few companies succeed. It's difficult to invent content that people will read. It's just very difficult.

6. The Next Big Feature: 'If we just had that feature the whole world would buy it.'

No, people haven't heard about you, so forget about it.

A company's attention must be focused on identifying and building Growth Engines.

I said it before this slide, and I'm saying it again: you really have to be obsessed with thinking, 'How can we do it better?'

If it's an important activity, you have to be haunted by the thought, 'How can we do it better?'

That's the only way you're going to grow fast and become successful and profitable.

Growth Engine – SEO Long Tail Branding

Many well-known companies use SEO Long Tail as their branding Growth Engine

Small amount of engineering + user participation – scalable Output

- LinkedIn – People and companies build their own pages
- TripAdvisor – Basic information by TripAdvisor, rich content added by users
- Yelp – Basic information by Yelp, rich content added by users
- Facebook – Network effect
- Zillow – A page per address, automatically enriched from many sources
- Amazon – A page per every possible product

Let's look at what other companies did.

We have already talked about many of these things, but you will see it again.

So, we talked about SEO, which is companies that build very large presence or very large data sets of information on the internet. They get a lot of people.

So how do they do it?

This time, instead of talking about the technology of the SEO long tail, I'm going to talk about the Growth Engine embedded in it. It's a different view, a different angle of the same activity.

So, **LinkedIn**, what did they do?

They basically built an empty platform.

Who puts the content that is worth so much?

All of you.

Their success was in convincing all of you that it's important and valuable for you to put your input, your data, your information into the platform—whether you are a company or a person.

Remember, this is a Growth Engine, and their growth today has very little to do with their investment. It's the impact that they had on people—that they come of their own will and put the information in.

By the way, because of their process, they lost a lawsuit. There was a company that scraped them, and LinkedIn sued them.

The company said, 'But you don't own the data. It belongs to the people. The only reason they put it is for others to read it. I'm "other" and I'm reading it.'

And they won—which is why ZoomInfo had all the data from LinkedIn.

They sent us a cease-and-desist letter, and while we were debating with them, the courts solved the problem and said they did not own the data.

TripAdvisor: TripAdvisor started by seeding the internet or their site with lists of locations and hotels.

They put basic information about the hotel (e.g., address and a few pictures), and then, unexpectedly, people started writing a lot of input about the hotels, about the locations. It started attracting more people and then they figured out how to make money out of it.

Again, I knew the founder, but here is another company that built the foundation, but the data is coming from users.

Yelp did the same thing.

If you look carefully on Yelp, you will find a company called Elyon Technologies up on River Street in Cambridge (Massachusetts). That's the name by which ZoomInfo was created in the year 2000.

Yelp has a very old database, and this information is still there. Nobody enriched it for whatever reason, but you will find Elyon Technologies there.

Facebook is very similar, except that it's not just that it was empty; you have the

network effect. Nobody will put information on Facebook unless there is someone to read it. So, people invite others to connect with them to see what they do and so forth. That's a classic network effect.

I'm not saying it was easy to do. Don't misunderstand me. I'm just trying to show you what a Growth Engine is and how it feeds on itself in these ways.

Zillow: Zillow is somewhat interesting which is why I put it on here.

Zillow is basically a page per address in the US. Every address in the US appears there.

In the beginning, it was a mapping application, but then they started automatically enriching it by connecting it to other databases.

For example, every house in the US that is bought or sold is reported, and it is public domain data. So, they can take this data, enter it into their site, and then they can start doing an analysis that in this neighborhood, in this city, the average price per square foot is so and so and so forth.

They do all of these connections, but once they have the data, the information is updated all the time, automatically. That's the Growth Engine.

And obviously, **Amazon**, but there is no need to talk about it.

Opster



- Opster- Tools for DevOps engineers to manage and optimize mission critical ElasticSearch clusters
 - Did anybody here understand what that means?
- Who are Opster's prospects?
 - ElasticSearch DevOps engineers
- How on earth can we target these elusive people?
 - They are busy and they don't respond to emails



THE SMART WAY TO BUILD A STARTUP: STARTUP

What I want to do is go over something that I described in the second or third lecture, which is one of the companies at SmartUp called Opster.

What I'm going to do is look at it again, but this time look at it from the perspective of a Growth Engine.

How did we do it with very few resources, and how did it grow afterward?

So Opster is a tool for DevOps engineers. I trust that nobody here ever heard of ElasticSearch or ElasticSearch clusters, but it doesn't really matter.

The prospects were DevOps engineers (ElasticSearch DevOps engineers), and we were looking for a way to create a brand. That was the question we were facing.

The way we did it: we started to look at the problem, not the solution, because we didn't have a solution at the time.

Opster – In Search of a Branding Engine



- **Focus on the problem - not on your solution**

- When Opster started, we had nothing to sell. Product vision was murky
- We asked ourselves – What do DevOps engineers do when encountering a problem with their ElasticSearch installation?
- In many cases the ElasticSearch system produces an error log that is written to their log file
- Here are random examples of real error logs

We knew there was a problem in maintaining ElasticSearch clusters, and so we asked ourselves, if a DevOps engineer encounters a problem what do they do?

I asked for the answer many times, and then suddenly Ziv, who was the founder, said, 'Well, I don't know, there are error messages that they produce, and they put them in a log. So, I can look at a log many times and I see the error messages, and I know what's wrong.'

I said, 'Oh interesting, how many error messages are there?'

- **Error Log examples**

- ❖ Could not lock IndexWriter isLocked
- ❖ Delaying allocation for unassigned shards; next check in
- ❖ Suspect illegal state: trying to move shard from primary mode to replica mode
- ❖ Failed to start monitoring service
- ❖ Using discovery type and seed hosts providers
- ❖ All shards failed
- ❖ Term query does not support array of values
- ❖ No mapping found for " + fieldName + " in order to sort on
- ❖ high disk watermark [90%] exceeded on
- ❖ Mapping update rejected by primary

Let me first show you the examples:

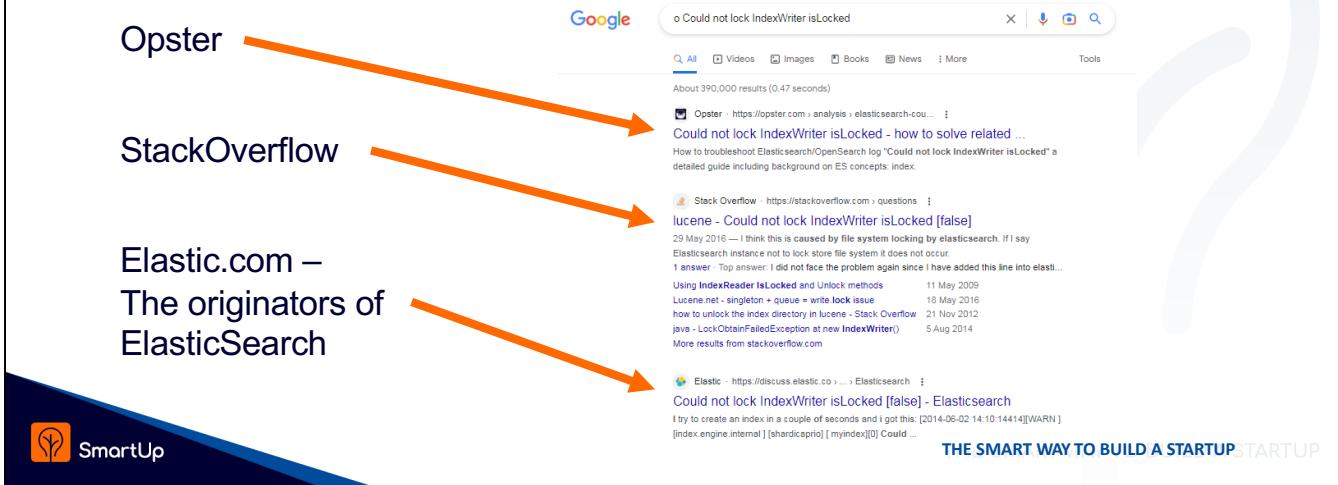
- Could not lock IndexWriter isLocked
- Delaying allocation for unassigned shards; next check in

They were basically nonsense. None of us understood what it meant.

Opster - the Power of Long Tail



- Ahead of StackOverflow and Elastic itself



What we did is we took all of this information, built a page per error message, and published it.

We put the first line of the error message, “Could not lock IndexWriter” or whatever it was, and we are the first result in Google.

The reason is there was no competition.

Who on Earth is going to put information on ElasticSearch error logs? Nobody in the world except Opster. So, when people copied the error from their log and searched it in Google, we came up first.

So that was an easy give.

Branding SEO Growth Engine - How to automatically create thousands of content pages?

- Wrote a script to extract all error logs from ElasticSearch open-source code
- Initially extracted about 700 different error logs. Later, some 3,000 error log pages published on Opster
- Opster published these 700 pages produced automatically – low quality content
- 60 or so pages generated 80% of the traffic – manually enriched their content. **High quality content creates a strong brand**

How did we do that?

I asked Ziv to tell me how many error logs existed. He said, 'I don't know.'

I said, 'Can you know?'

He said, 'Yeah piece of cake, give me a few minutes.'

He wrote a script because it's open source, and he answered that there are about 700 different error logs.

So, I asked him, 'Okay, let's take a few error logs. Tell me what they mean.'

He looked at them and said, 'Honest to God, I have no idea.'

So we're developing a product, and we don't know what it is. We're trying to build a brand, we have a direction, and we have no clue what it means.

What we did is the following:

We took the 700 error logs—and I'm explaining it in detail because I want to show you how you build a Growth Engine with very little investment—we took the logs, and we asked what we could say about them.

We can copy where the error log is printed and put three lines of code above and three lines of code below and present it.

We can also show you in what part of the code the error is found so you know if it's in the indexing, if it's in the search, if it's wherever.

We added some extra information if we could find it on the internet, mainly from StackOverflow, and we published it.

Here's what happened.

We published 700 pages, and we discovered that about 60 pages generated the most traffic. That meant that these were the error logs that were of the most interest to people.

So, what we did, which is not rocket science, is that we went to experts, and we asked them what they really meant—and most people didn't know but they did the research, and we enriched about 60 pages.

What we got—think about the amount of work we invested, which was very little—we got the best, real content about this on the web with very little investment.

That's the key issue here. That's what I call the Growth Engine.

Opster – Growth Engine Scalable Output



- Traffic results per quarter



Opster – Lead Generation Growth Engine



BUT – Traffic is not yet leads

- Developed CheckUp – a FREE simple tool to identify problems based on 2-3 files taken from an Elastic cluster

Welcome to Opster's Free Check-Up

Detect Search problems and resolve them.

- Analyze your cluster in **2 minutes** by copying & pasting 2 JSON files.

- Receive personalized recommendations to improve performance.

Free forever No installation required



- Users needed to create an account to run CheckUp
- Scalable Growth Engine – Fixed, low product development cost. Works 24/7, converts traffic to users, and users to leads
- Growth Engine – Very low Customer Acquisition Cost (CAC)



THE SMART WAY TO BUILD A STARTUP: STARTUP

Well, traffic is great, but we needed customers, so we used another trick from a Growth Engine.

The trick is you develop a free product, and you give it to people. The only thing you request is when they use it or download it, they put their name and email address and so forth. So, you convert all of this anonymous traffic into real people.

This was our product: "Welcome to Opster's Free Check-Up."

You can take two files from the Elastic cluster and put them in the tool, and it analyzes it, but you need to create an account.

We made an investment to develop CheckUp, so that was about a month or two of an engineer's time, but from then on, it worked forever.

Growth Engines. Remember, you want a small amount of effort that can scale up.

This is very different from dealing with a strategic partner or a big customer who sucks up all your resources. We kind of did that on the side.

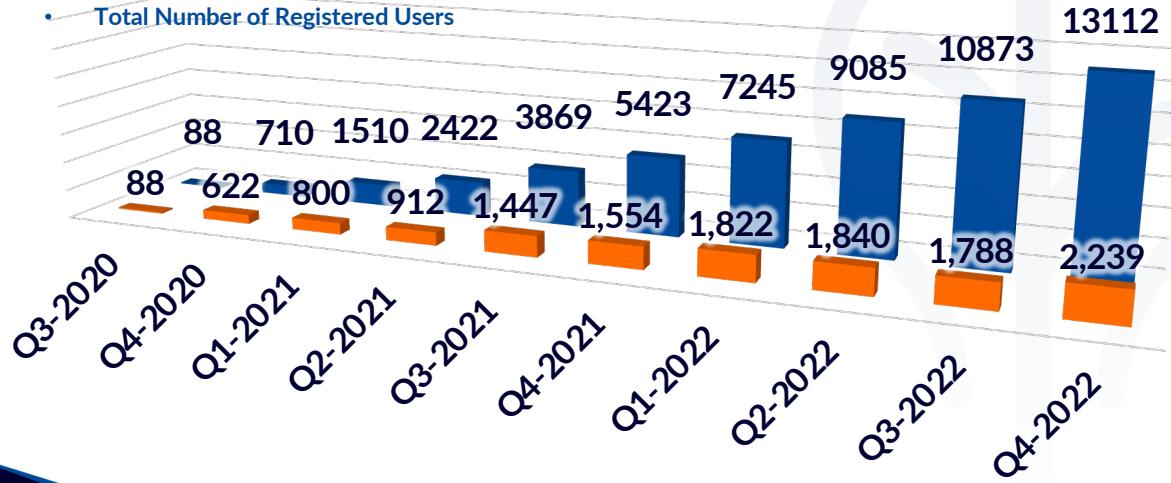
Do you start to get the feeling of what a Growth Engine is?

Opster has a very low customer acquisition cost, so we spent very little money to create this.

Opster – Users and Leads Growth Engine



- Number of New Registered Users
- Total Number of Registered Users



THE SMART WAY TO BUILD A STARTUP: STARTUP

These are the numbers; you can see them growing.

The red is new registered users, and the blue is the total number.

Opster – Content Creation Growth Engine



- Objective – Continuous creation of useful, high quality, technical “how to’s about Elastic’s database and platform
- The Problem - Only good engineers can produce such content. Good engineers are busy coding, and don’t like writing articles
- **Technical Writing Growth Engine**
 - Opster’s technical experts created a curated list of desired articles
 - Hired freelance Elastic experts who like writing, paid \$300 per article
 - Reviewed the articles by Opster’s technical experts
 - Continued working only with the freelancers who passed the quality test
 - Edited the article’s English and published
- Consistently published several articles a week

This was the first content we developed but there was a hunger in the market for a lot of explanations and how-tos on ElasticSearch. It turns out that ElasticSearch was not great at writing content and how-tos (e.g., how do I do this or that with my system?), and I'll explain why in a moment.

Only good engineers can produce good content, but what do good engineers do? They write code.

So, the VP of Marketing says, 'I need you to write at least one how-to article a week,' and the engineer says, 'Sure no problem.'

Then, a month later, the VP comes and says, 'So, where is the article?'

The engineer says, 'Oh, I was busy, there were these issues.' Nothing happens.

So that's why there was no good content on the web about ElasticSearch how-tos.

Here's how we did it.

We encountered the same problem internally. We weren't that smart, and we tried to use our engineers to write good content, and we encountered the same problem.

So, the marketing group was very smart, and their solution was to use our very talented, sophisticated technical people to tell us what they wanted to be written—not the writing itself—just which how-tos are interesting.

They sat down, and they created a curated list of titles and subjects, e.g., I want you to tell me how to do this, how to do that, write me an article about this.

We had a curated list, and we published it. We use Upwork and other freelancer platforms, so we published the list in several places.

We asked people who understand ElasticSearch if they wanted to bid for the work and that we would pay \$300 per article. We got several good bites, and people did it.

We then took what they wrote and sent it to the same people who curated the list. We asked them if the writing met expectations and if it was good enough quality. Then, we narrowed down the writers. By the time the company was sold, there were about five or six writers who were writing really good content.

Each of the writers would pick a subject from the list, put their name next to it, and write it. There was a person on the marketing team, who happened to be my daughter, who managed the list and made sure that the writers completed their articles. They gave her the date it would be ready, and she would follow up to ensure they submitted.

We then edited the article. When the technical people said it was good enough, my daughter reviewed it and corrected the English. With this system, we were able to consistently publish several articles a week.

Why?

Because we outsourced the work—but in a way that we had full control over the outcome and at a fraction of the investment.

This is why I went into detail—remember, it's a Growth Engine. You want something that is sustainable and can continue to work.

Writers came in and out. Some of them went on vacation, some of them did two or three articles and had to stop, but we were constantly hiring people per article. We had a process for figuring out whether they were good writers. We produced the list

of titles/subjects, and it continued to produce all of that.

Opster – The value of Growth Engines and a brand

- In October of 2023 Elastic acquired Opster for its AutoOps tools, content and brand
- Integrating Opster's AutoOps tool into Elastics products, and making it available to its tech support engineers
- Elastic also took Opster's marketing team to recreate a “content creation engine” to build high quality content for ElasticSearch ☺

As I said, the company was acquired. It was acquired by Elastic for the AutoOps tools, the main product, which was extremely important for Elastic, but also for the content and the brand that we created.

Elastic integrated AutoOps tool, but more importantly (for me at least) is that they took the marketing team to recreate the same process. Literally.

They took the marketing team. They used the same outside writers. They use the same process exactly. We heard later on that they had tried for years to produce this content and were unsuccessful. It drove them crazy.

The reason Elastic bought us is because their customers started to turn to us for information much more often than they would to them. Additionally, when people would call with questions, the tech support engineers would direct them to Opster for solutions. It really upset Elastic.

Again, this was a Growth Engine because the amount of effort we put in was very small compared to the output.

Growth Engine – Customer Support

CardScan

CardScan



- The year: mid 1990's. Before USB
- The problem: difficult, long, and cumbersome installation on a PC
- The more units sold → the more support people
- When we reached 4 support people we knew we needed a solution

THE SMART WAY TO BUILD A STARTUP: STARTUP

I'll give you another example from CardScan.

You can see from the picture that it's a handheld scanner.

I'm now talking about the mid-90s, around 1995 or 1996.

At the time, if you wanted to connect any hardware to your computer, you had to open the desktop box and connect it to the bus. You had a control board, and you put it in there.

Basically, I showed the demo of the scanner to my board of directors, and one director, Chris, said, 'Yonatan, there's no way anybody is going to do that.'

I said, 'You're absolutely right, but that's the only product I have so we're going to sell what we have.'

Later on, we had a parallel port, which might not be something anyone remembers. Regardless, no matter how you look at it, installing CardScan was tough.

What was tough? People called our tech support, and the number of tech people grew very fast. It was perfectly linear with the number of units we sold, and that was scary.

Remember, with Growth Engines, you have to grow the output without growing the input, and here we were one-to-one.

So, I called all the tech support people, and we sat down to figure out a Growth Engine. We started looking at what takes the most amount of time.

The first thing you want to do is identify the problems and solve them so that when people try to install the product it will install properly and not be a problem.

So, we created a weekly meeting. Every week, the tech support engineers sat down with the engineering team, and they highlighted the top 10 issues they saw that week. I think later on, we did it once a month, and we basically solved those problems so that they didn't become a tech support call.

However, I believe the real insight was the following:

If you call a bank or any company, you expect to be told that you are number 13 in line, but if you give them your phone number, they will call you back in three hours. Nobody answers the phone. Nobody.

So, we looked at this reality and said that it was a phenomenal opportunity to change people's opinion about CardScan.

What happens if we answer the phone? We set a target to answer the phone within 30 seconds. 30 seconds. And we measure it.

The idea was if the phone rang, the first line, which is somebody chosen for the role, would pick up the phone. That's his or her job. Then, what they should try to do is triage, like in a hospital, Hadar Miyun (ER).

So, they pick up the phone and find out if the issue is something simple they can solve. If it's not simple, they then tell the caller they'll be transferred to a more advanced technician. Now, people feel great. They called, they got an answer, they think their problem is serious and now they're getting help from an expert. Wonderful.

They were then willing to wait because they first spoke to a person when they called. We also ended up solving a good number of the issues in the first call.

Then what happened is during the second, expert call, the caller would often need to reboot their computer. With PCs, you often had to reboot after you changed something, which took about 4 to 5 minutes.

In the old days, before we did the changes, the engineer would make small-talk with the customer about baseball, the weather—"American" things—before telling them to reboot their system. The engineer would also tell the caller that the reboot should solve the issue, and if it didn't, they could call back.

Occasionally, callers would protest, 'But I already have you on the phone!'

The engineer would say, 'Sir/Madam, how long did it take before we answered the phone?'

The customer would say, 'Well, that was a real surprise. You answered the phone.'

To which the engineer would reply, 'We will answer your call again; don't worry about it. The reboot should work and if not, call us again.'

People would hang up, and if there was a problem, they called again. Not a big issue.

As a result, we grew and grew. We ended up doing about 100,000 units a year with four engineers. That's it. We never added another engineer.

When I talk about this Growth Engine, I want you to think about it in every space of the company, whatever you do. Try to say, 'How do I grow the output without growing the input?'

This is the question that will make you grow fast and make money. I've shown you a lot of areas in a company where that can become interesting.

Growth Engines – Apple iPhone vs Samsung



- Who here bought a Samsung phone?

- Why did you choose the model you chose?
- How did you decide in which store to buy the phone?
- How did you decide when to time the purchase?

Now, I want to compare Apple and Samsung.

First of all, who here is using a Samsung phone? Raise your hand. Wonderful.

Question: How did you decide which of the Samsung phones you wanted to buy? How did you decide, and how long did it take you to say, 'This is the model I want'? You raised your hand, how long?

[From the audience]: I just picked the latest model, I guess.

But there are a lot of different models.

[From the audience]: News articles.

News articles. What else? Anything else?

[From the audience]: Advertisements.

Advertisements.

[From the audience]: Comparison.

Comparison, right? Okay, how did you decide where to buy?

[From the audience]: Prices.

You compared prices, and did you make any decision about when to buy, like on Black Friday or Amazon [Prime Day]?

[Overlapping comments from the audience]

There is a reason I ask all these questions—you will understand in a moment.

Growth Engines – Apple iPhone vs Samsung



	Samsung	Apple iPhone
Unit sales in 2023	271 million units	238 million units
Market share in Q3 2023	20%	16%
Revenues from phones in 2022	\$246 billion in its mobile division	Over half of \$394 billion, say \$200 billion

Let's compare their numbers.

Samsung wins. In 2023, they sold 271 million units—by the way, I got all of this information from ChatGPT. I tried to look at where it got the information, but there is no guarantee the numbers are correct.

I looked at the original articles. By the way, if you want to do that, you have to go to Edge and use Copilot, and then they give you the source of every piece of information, so it's important.

So, Samsung sold 271 million units and Apple only 238 million. The market share doesn't work out because you can compare the two numbers, and they don't represent 20% and 16%. But to my benefit, they said that's the market share in Q3, whereas the top one is the entire amount of units.

In revenues, again, they win. They did about \$246 million in that unit. Remember, these are all conglomerates, and Apple says that about half of their \$394 billion was from the iPhone, so about half is \$200 million. That's what I put.

So who wins? Samsung.

Growth Engines – Apple iPhone vs Samsung



	Samsung	Apple iPhone
Share of the phone industry profits	15%	75%
Gross margin per phone	Less than 20%	Over 55%
Market capitalization August 2024	Less than \$400 billion	\$3.2 trillion = \$3,200 billion

But let's look at *the share of the phone industry profits*.

It doesn't look like what we looked at before. 15% goes to Samsung, and 75% of the entire industry profits goes to iPhone.

Gross margin per phone: Samsung less than 20%; Apple over 55%.

The impact is in the last line: Samsung is worth about \$400 billion; Apple is worth 8 times more at \$3.2 trillion.

Do you have any idea why the numbers from Slide 23 don't generate the numbers from Slide 24?

[From the audience]: Because of the branding.

Branding, but the branding should come here, so you should sell more phones.

Growth Engine – Apple iPhone vs. Samsung

Which iPhone is right for you?



iPhone 15 Pro
New
The ultimate iPhone.



iPhone 15
New
A total powerhouse.



iPhone 14
As amazing as ever.



iPhone SE
Serious power.
Serious value.

The full selection on Apple's site



Here is what you find on the Apple website: iPhone 15 Pro, iPhone 15, and surprise surprise iPhone 14. And, if you look, I've copied below iPhone 13.

So, Apple's idea for different price points in their system is not to introduce several models at different prices. It's basically to introduce a new model and then relegate the previous year's model to the next level of pricing and the model from two years ago to the third level of pricing.

They accomplished several things:

Number one: their entire engineering and production team is focused on a single phone. A single phone. Think about how many people they save by not worrying about multiple models. They only produced one phone this year.

The lifetime of the older phones is now three years. So, they have cleared everything about them. They don't have to deal with obsolete models because they keep selling them.

So now you start to understand where the growth margin comes from.

Growth Engines – Apple iPhone vs Samsung



	Samsung	Apple iPhone
Number of models introduced each year	30-40 models: Galaxy S, Galaxy Note, Galaxy A, Galaxy M, Galaxy Z Fold, Z Flip	ONE: iPhone 15 Still selling older iPhone 14 and iPhone 13
Price variation by store	Can vary	None
Price variation by dates or promotions	Can vary	None

But the real issue here is the following:

This is the same comparison, but this time, I look at the number of models.

The reason I asked you about it is because Samsung offers the Galaxy S, Galaxy Note, Galaxy A, Galaxy M, Galaxy Z Fold, and the Z Flip.

Once, I tried to figure out which one I was going to buy, and honestly, I couldn't figure it out.

Now, the reason I asked you the question is the following, and we're going to get to it later on.

I call these **inhibitors of friction**.

When a company wants to grow, it has to make the purchase process as simple as possible. You want people to not have to think.

When I say, 'Go and buy an iPhone,' I don't need to tell you which one to buy. There's

only one to buy—the iPhone 15.

You don't need to compare, you don't need to read articles, you don't need to do anything. There's one phone.

Your entire thinking is, 'Am I going to buy an iPhone, or am I going to buy a Samsung?' That's about it.

When you decide to buy a Samsung, you ask people which one they recommend, how does it work, etc. You wasted four weeks doing research, and Samsung didn't see your money.

Pricing.

Apple is adamant that you buy the phone for the same exact price in every single outlet or store.

Now, this is illegal. By American Antitrust laws, you can decide at what price you sell an item to the store, the distributor, or whatever—but you cannot control the price they sell it to the end user because they want to encourage competition.

So Apple doesn't tell you at what price you should sell it but if you sell it at below the price they told you, then suddenly they run out of inventory for you—which is totally legal. I mean, they just ran out of inventory, right?

So very quickly, the market realized that if they want to work with Apple, they have to sell at Apple's price.

Now, I'm a huge fan of Steve Jobs. I think the guy is one of the biggest geniuses in business and engineering, so I copied that at CardScan.

We made sure that CardScan had the same price everywhere you go, every day of the year. There were no promotions, no nothing. You didn't have to wait till Christmas or New Year or whatever.

Again, every one of these things I've mentioned is friction that delays the purchase which means it delays the money to Apple or Samsung.

Growth Engines in Operations

- Wolt – Delivery persons are not employees
 - They are called “Wolt Courier Partner” – “you can earn money by delivering orders to local customers... when and where you want....”
 - Flexible arrangement for Wolt, no fixed employment cost
 - Pay per delivery, no delivery no cost
 - No benefits, no medical insurance, no vacations,
- Amazon Delivery Service Partner Program
 - “Learn the basics about being the owner-operator of your own Amazon delivery business.” “Work as an independent contractor for Amazon”
 - “Set your own hours. Hire and manage employees and delivery shifts”
 - “Receive fixed monthly payments based on the volume of packages delivered”

I want to show you Wolt.

Wolt calls the delivery persons “Wolt Courier Partners.” They’re not employees. As per their terms, ‘you can earn money by delivering orders to local customers [...] when and where you want.’

They are staying away from adding people to the process because that gives them tremendous flexibility. They have no fixed employment costs. They pay per delivery. They don’t offer benefits, insurance, vacation pay, or anything. That’s why they do it.

Again, it’s a Growth Engine. They can grow significantly just by putting an ad, and anybody who wants to come will come. It’s really simple.

They can also shrink easily. If they don’t have things to deliver, the person doesn’t come, which means they have tremendous flexibility to grow and shrink on demand, which makes it much cheaper.

I’m trying to give you examples so that you start to understand what a Growth Engine means and what power it gives you.

Now, there's another company that didn't stay behind; it's called Amazon.

They have a Delivery Service Partner Program. As per them, 'learn the basics about being the owner-operator of your own Amazon delivery business.' Again, they don't pay a penny. You 'work as an independent contractor for Amazon.' They make it very clear that Amazon is not the employer.

You can see that many industries farm out the work. Today, you see it a lot. Airbnb is the same thing. All of these platforms do the same things.

When I was in Boston recently, we needed somebody to help us carry 12 suitcases down from the third floor. My daughter suggested using TaskRabbit.

I didn't know what TaskRabbit was, and she explained that it was an app where you can request whatever you want, and people could just do it. So that's what we did, and somebody showed up to carry our suitcases down the stairs. He's doing his master's in physics and was the best person I ever met.

Growth Engine in Operations

CardScan

Production and fulfillment operations

- Manufacturing in Taiwan and warehousing in the USA – on the supplier
- A contractor produced the box, materials and disks
- The contractor got an order from CardScan, pulled scanners from supplier, assembled, and shipped
- Only then CardScan Inc. paid for anything
- CardScan Inc. did not carry any inventory, or fixed costs

Retail operations

- Moved to consignment and weekly payments based on actual sales



THE SMART WAY TO BUILD A STARTUP: STARTUP

Back to CardScan.

We began by producing the scanners, but our CFO was a really astute manager, and he wanted us to become almost like a vault.

When somebody buys CardScan I'm going to buy it somehow and ship it to them, but I don't want to own any inventory. I don't want to invest anything.

With a lot of hard work, he found a company that produced all the stuff that was not just a scanner. He convinced the scanner manufacturer to manufacture it in Taiwan, send it overseas to California on their penny, and from California drop ship it to this person whenever they request it, without us giving a penny.

When we got an order, we sent the order to these people. The order shipped, and when we saw the shipping chart, we paid the money. So that means from a cash flow perspective, we can grow and shrink as easily as possible—same idea.

How did he do that? Don't ask me, I don't know. I asked him several times, and he said, 'I know I'm pretty convincing, I guess.' But that's what he did.

Then I brought in a new CEO, and he did something that really shocked me.

What we used to do—I'm now talking about the end of 1990s, maybe 2001/2002—when we sold to, let's say, CompUSA or Office Depot or OfficeMax or any of these stores, they told us they needed, for example, three scanners in each store times 200 stores. They wanted 600 units, and we sent them 600 units. We then invoiced them for the 600 units, and we got paid.

Then, we kept shipping one or two units every time they needed restocking in various stores.

However, when we switched to the next generation, which happened once a year, we had to take back 600 scanners or whatever it was, and we had to give them the money back on those scanners.

This made our financials go up and down, which was a horrible thing to do.

The new CEO tried to convince them to put the scanners on consignment. This meant if we shipped them 600 scanners, we didn't send them an invoice. They only pay for the units sold to end users.

I said to him, 'That's stupid, we want the money.'

He said, 'You're right, but because it is so hectic, it's very hard to manage the company in a rational way because all of these big spikes drive you crazy.'

I argued with him, but he was absolutely right.

The funny thing is that the stores were not ready to do that. They couldn't do it. It took them two years before they changed their accounting system to allow us to put things on consignment, which is kind of funny. They were eager to pay us money and then receive refunds rather than just do this.

But the consignment scheme made a huge difference later on because it allowed us to really understand our business on sales to end users that don't come back.

I'll present one more example from another angle and then we will start digging into what is and isn't a Growth Engine and how they work.

Growth Engine in Operations - Collections



- At ZoomInfo we collected 99.3% of invoices every single year
- Was accomplished by a single person – Donna Angelucci, even when the company approached \$100m in sales
- Process:
 - Sent constant reminders before the payment was due
 - Immediate follow up if payment was not received
 - Small customers could pay only with credit card, before an account was opened
 - Immediate escalation to the salesperson on non-paid bills (caught fraud)
 - Non-paying customers were shut down
 - Attention, follow up, attention, follow up

So, at ZoomInfo, we collected about 99.3% of invoices, which is a very high standard for those of you who are not familiar with collections.

The interesting thing is that the whole process was done by a single person. Her name is Donna Angelucci, my dear friend, and even when the company was approaching \$100 million, she was the only person in collections.

So, what was the process?

The process was fairly simple.

Whenever we issued an invoice, it was due in about 30 days. Two weeks in advance, Donna sent a reminder, then she called the company and said, 'I hope it's already in your system, are you going to pay it, yes or no?'

Donna basically made sure that everyone knew they owed us money. She also figured out that small customers were a big pain, so she decided that we would not sell to any small customer unless they gave us a credit card upfront and paid.

Also, if a customer didn't pay, she immediately escalated the issue to the salespeople. Salespeople hate talking to customers who don't pay because they already got the commission, so they don't care, and they don't want to alienate anybody.

Donna would tell them, 'Well, if he doesn't pay, I will turn off his account.'

She did it several times, and the salespeople learned that they don't fuss around with her.

Donna built a system without a lot of extra effort. She was also the gossip center of the company, so she had time to hear all of the gossip and communicate it to me, all while accomplishing that.

The reason I gave these anecdotes is just to show you the various areas where this concept applies.

How to Build a Growth Engine?

- Evaluate the benefits – what if it can easily be scaled up?
- Ask - What stops it from being scalable?
- **Inhibitors**

What is the most common Inhibitor ?

So how do you build a Growth Engine?

You're sitting here and saying, 'Yonatan is talking for about an hour but how the hell do I do that?'

The answer is simple.

First of all, you ask yourself, 'Okay, I'm doing this, what **would be the benefit if I can scale it up?**'

If the answer is not serious, then don't worry about it. If you can see a lot of benefits in scaling something up, that's a good area to start thinking.

The second question is even more critical. **What stops you from escalating?**

I call those **inhibitors**. Sometimes, I call them **friction**, and there isn't a big difference between them, but there is a difference.

So, what are the inhibitors?

(Anything on the slide in red is a question.)

What do you think is the most common inhibitor?

[From the audience]: People

People. Do you know the famous saying, "If it wasn't for the employees and the customers, business would be so easy"?

People. That's the bane of business and of life, basically.

So, what's the problem with people?

Remember you want to build a Growth Engine so that means you want to grow, you want to add more people.

Growth Engine – The Biggest Inhibitor

People

- Hard to find the right people – ALWAYS
- Hard to recruit – a huge task, expensive, inefficient
- Questionable results – basically like gambling
- 10% of recruits are a joy, 10% are a disaster, 80% are in between

Price's Law (Named after Derek J. de Solla Price, a British sociologist/historian, 1965)

- 50% of the work is done by the square root ($\sqrt{ }$) of the total number of people who participate in the work (like the 80/20 rule)
- A small percentage of individuals in any organization / group are responsible for most of the total output and results.

Adding more people means you need to find people, and it's always very hard to find the right people.

I am a little bit older than many of you, and I've hired many people, and I've fired more people than I have hired, and I was still never able to figure out how to choose the right people.

I even learned something more serious.

I've met people who told me, 'I'm a genius at hiring people; I know exactly how to hire people.'

However, when I asked them to do it for me, they were a total failure.

So I feel a little bit better that I'm not the only idiot in town. Anybody who tries to tell me that they know how to hire people, I take them with not a grain of salt but a big pile of salt.

Second, it's very hard to recruit people. You have to talk to them, it's expensive, it's

inefficient, and the results are questionable.

My brother and I have a joke—he also had a fairly big company—and we said, usually it's the third person you hire that turns out to be a good hire, so can we somehow skip directly to the third person?

We haven't yet figured it out.

Here are my statistics:

10% of recruits are a joy. A "joy" means you tell them what to do, and they do it. You don't have to pay attention to them; the work is just done. They're nice, they smile, they're smart as hell, and they get results. One out of 10. That's kind of my experience.

10% are also easy. They're a disaster. You tell them what to do, but then they come after a week, and they ask, 'Did you really mean that?' and you have to say, 'No, I meant this.'

Okay. Fire them.

The problem is the 80% in the middle.

Remember, they are not a joy because joy was the 10%, and they are not a disaster.

I'll give you a few laws about it.

I like the first one; it's really fun. It's from Derek J. de Solla Price, a British sociologist and historian.

He started looking at articles in the science literature because they started collecting references. As you may know, they now grade people in academia by how many people cite their articles.

This information is now in databases and it's very easy to do research on it. So, de Solla Price researched it. He took a few areas of study, and he found something really bizarre.

Let's say that there were 1000 articles written in one area of research, and there were 100 writers or scientists working on them.

50% of the articles (500 articles) were written by the square root ($\sqrt{}$) of the number of writers, which is 10. So, out of the 1000 articles, 500 were written by ten people, and

90 other people wrote the other 500.

They took the same law and checked it in different areas. The conclusion was that a small percentage of individuals in any organization are responsible for most of the total output and results.

From my personal experience, this is true. You look at every company, even the huge ones, and you will notice the actual number of people that really had a big influence on the company.

Growth Engine – The Biggest Inhibitor – People

Parkinson's Laws:

- In every organization people promote themselves by hiring a team to do their job
- Work will expand to fill the time planned for its completion

Yonatan's Laws:

- Managers spend most of their valuable time on employees they end up firing
- Every three people cause another person to be hired

Parkinson's Law.

Parkinson was an English writer who did some research on the British Navy, and he figured out the following rules:

In every organization, people promote themselves by hiring a team to do their job.

Why?

Because if they want to promote themselves when they have a boss, they can't kill the boss, it's illegal. So, they don't kill the boss, but they can expand their scope by hiring people. As a result, five years later, a job that one person did became a department of ten people with three layers of managers.

Why?

For obvious reasons.

I call the second law “The Last Boiled Egg For *Shabbat [the Sabbath]*.”

This law states that **the work will expand to fill the time planned for its completion**.

Why do I call it The Last Boiled Egg For *Shabbat*? Because it was my mother's story.

My mother made all the *Shabbat* preparations on Thursday. The only thing she needed to do on Friday was boil eggs. But, because that was the only thing she needed to do, it took the whole day.

Now I'll give you my laws.

My first law is that **managers spend most of their valuable time on employees they end up firing**.

Why?

Because you're not sure if they're part of the 10% that are a disaster or at the low end of the 80%—so, you spend so much time on them instead of spending time with your best people and helping them and working with them.

That's the reality. Anybody who manages knows that's true. If you look at what you spend your week on, you will realize how many hours you spend with a person you really detest and want to fire.

Second law: every three people somehow causes a fourth person to be hired.

Let's say you have a really good engineer. He's working, he's doing a tremendous amount of work and you're excited about it. You ask him how you can help him be more productive.

He mentions that he has a genius cousin and that we should hire him as well. You agree and hire his cousin, and the two of them work like a couple. It flies. It's phenomenal. $1+1=2.5$ —it's great!

Now you're enthused. You ask the engineer if they have another relative, but they don't, so they recommend their neighbor, who is also really good. So you bring in the neighbor. Now you have three people.

Except three people need a manager; they need a team lead. So now you have two choices: take one of the good engineers and make him a team lead and lose a good engineer, or bring a team lead from the outside.

Most companies end up bringing a team lead from the outside.

Now, what does a team lead do? He talks to the other team leads because he's not going to waste his time with these people, right?

So, every three people bring a fourth person, and the rest of it is iterations.

I think you understand why this is happening.

The Biggest Inhibitor to Profitability – People

- 70% - 80% of any technology company costs are around people (salaries, overhead, travel, amenities...)
- People and salaries are rigid fixed costs – and salaries always go up
- Rule number 1 for building Growth Engines is to replace work done by people, with software and processes that require less people
- Sales per employee – a very important measure and indicator for profitability

Now, let's think about the impact on profitability. 70 to 80% of any technology company's costs are around people, salaries, rent, overhead, travel, etc. If you look at the budget, those are the biggest costs, and they are rigid expenses.

You cannot tell an employee, 'I don't really need you next week, so don't come next week and don't get paid. In September, I might need you for a few days.'

It doesn't work this way.

Remember the Wolt and Amazon model—the moment you hire a person, on the 30th of the month, the check goes out whether you like it or not. Moreover, if you want to get rid of that person, there are legal processes to follow, which also include costs. So even if you decide to fire that person, it's still expensive to do.

People are the worst expense you can have in terms of rigidity. Their costs are inflexible.

Additionally, salaries always go up. I tried to make them go down; it didn't go very well.

Rule number one when you want to build a Growth Engine is to replace work done by people with software and processes that require fewer people.

In most cases, you cannot reduce the number of people, but you can increase the output without adding people.

Just to be realistic, if you want to grow, and you want to make money, and you want your business to be scalable, don't hire people.

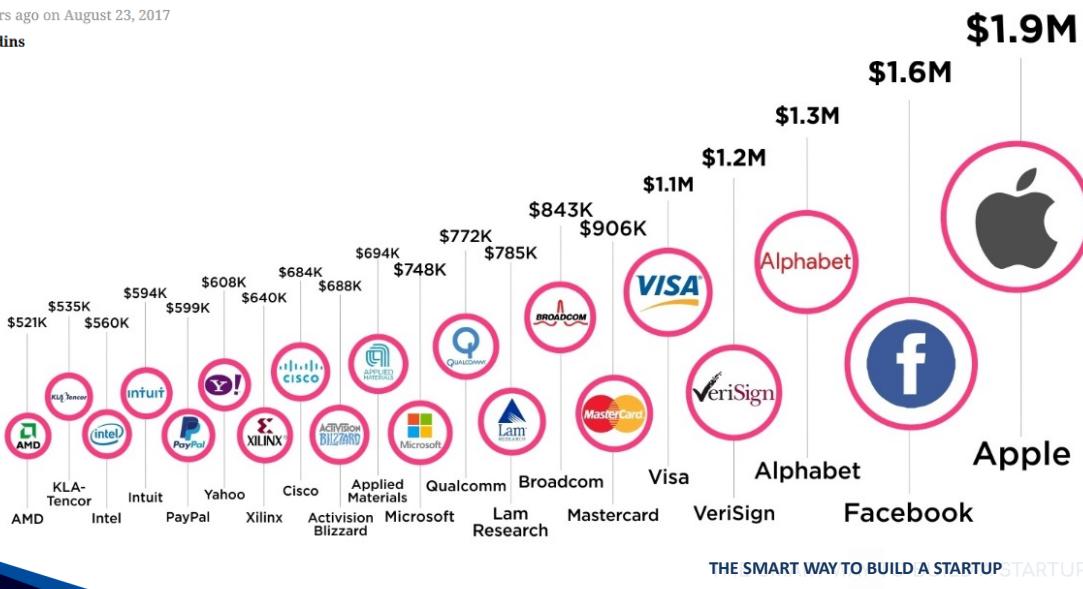
Don't hire people. It will kill your Growth Engine because only the third person might work out. Remember, the first two are a disaster.

The Top 20 Tech Companies by Revenue Per Employee



Published 7 years ago on August 23, 2017

By Jeff Desjardins



How is this rule reflected in the numbers?

There is a measure called “sales per employee,” which is a very important measure and an indicator.

I found a chart, but unfortunately, it is from 2017. Surprisingly, I couldn’t find anything newer, even though the numbers are out there. Every public company has to publish their number of employees and their revenues, but I haven’t seen anything like this for the most recent years.

So, unsurprisingly, on the right is Apple. Then Facebook, Alphabet (which is Google), etc., and what you start to see is that the tech companies that have figured out Growth Engines are out there.

As you can see, the sales per employee in those good companies are in the hundreds of thousands of dollars and up, whereas the average salaries in those companies are maybe \$150,000. The rest is profits, which is why they are worth so much money.

If you want to know how well your company is doing, calculate your sales per

employee.

Take your revenues and divide it by the number of people you have.

If you are below \$200,000, you can improve dramatically. Most companies in the early stages are at about \$150,000/\$200,000, which is not great.

How to Build a Growth Engine

Inhibitors and Friction vs. Enables

- Inhibitors are all the things that stand in the way of scaling up a process
- Friction are all the things that just slow down the process
- Enablers for a Growth Engine fall into two broad categories
 - Continuous removal of inhibitors and friction
 - New ideas how to do things efficiently

We understand that there are **inhibitors** to building a Growth Engine.

Inhibitors are all the things that stand in the way of scaling up the process.

Friction is all the things that just slow down the process—they don't inhibit; they just make it longer.

For example, what I described about the Samsung phones, e.g., you need to read articles, talk to friends, etc.—this just slows down the process; it's friction.

When you want to build a Growth Engine, think very carefully about what stops you and what delays you every step of the way.

What are the **enablers**?

They fall into two very broad categories:

1. The continuous removal of inhibitors and friction.

When I say **continuous**, I mean it's something you keep thinking about because the inhibitor you removed yesterday reveals the next one. It's always like that.

You have to think about enablers all the time—how you can make your processes faster, better, and cheaper.

Usually, it's by removing problems and there are an endless number of problems.

Don't ask me why, but every time I tried to get to the bottom of an issue, I found another turtle underneath it. There are turtles all the way down—and for those of you who don't understand the joke, I'll explain it at the end.

2. New ideas about how to do things efficiently.

I'm not minimizing this option, but in most cases, just removing hurdles, frictions, and inhibitors makes a big difference. But don't hire people—figure out how to remove these without hiring people.

Sales Growth Engines

- Sales Growth Engine - a dilemma
 - Build a sales organization – Number of people linear with sales growth
 - Develop eCommerce and sell online – Good only for small transactions
 - Do both: Free → to eCommerce → to Corporate sale (HubSpot, Zoom video, Zoho, SalesForce, Slack, LinkedIn, Google Workspace, ...)

I'm now going to pivot into a slightly different subject and want to share with you a real dilemma.

Many times, when I talk about a Growth Engine, people think about sales.

It's obvious, but when you go to sales, there is a dilemma. You can build a sales organization, but there is a problem: in sales organizations, the number of people is linear with the sales growth.

This equation is the opposite of what I just said to do. Yet, I did it.

Why?

You can do it, and I'll explain how, but this is really a decision you have to think about.

Sales organizations are the only exception where, unfortunately, you keep growing it if you want to grow.

Another option is to develop e-commerce. Many people want to do e-commerce, but it's only good for small transactions. Nobody's going to put a credit card for \$20,000 or \$50,000.

So, you have a problem: you either do this or that or a combination. We have many examples of combinations.

The combination goes like this: first, you start with a free product, then you move to e-commerce, and then you move to the corporate sale.

HubSpot is a very good example. With HubSpot, you can start free with limited functionality. Then, if you want to use more features or add users, you have to pay for it. As you keep growing, you'll get a phone call from a salesperson who says, 'Oh, I see you guys are using it; let me give you our best offer.'

Zoom Video also uses a combination model. As a user, you can use it for free, but after 40 minutes, it stops. Additionally, Zoho, Salesforce, Slack, LinkedIn, Google Workspace, etc., use a combination sales model.

Unfortunately, at ZoomInfo I didn't figure it out. I went the other way around. This is critical.

I built a sales organization, and the reason I did it was because it was easy. I brought in a salesman because I didn't know who I was going to sell to. I couldn't figure it out. It was the year 2001. So, I brought in a person.

Actually, I fired the first salesperson, but the second one worked out, so I didn't have to wait for number three. That was very lucky. I knew the second person; I brought them in from recruiting to become sales.

Sales grew fantastically. We sold our license for about \$1,000 per month, and we brought in more salespeople, and we grew. Then we said, this is ridiculous; we need to develop an e-commerce option.

The only difference between the corporate model and the e-commerce model is the size or the amount of data you get.

But we encountered a problem. When we introduced e-commerce, the salespeople rioted. They said, 'Look, I was working on a \$10,000 deal, but the customer went to our website and saw that he could start using ZoomInfo for \$99. He told me he was still interested in the \$10,000 option but wants to use the low-end one for 2 to 3 months to see if he really likes it, and then we will talk.'

The salespeople pointed out that I held them responsible for the quota, but the rug was just pulled out from under them.

I tried six times to introduce e-commerce and failed. They still don't have real e-commerce at ZoomInfo because I did it wrong.

If you take anything out of this lecture today, this is the deepest lesson I can share with you.

Start with free products, then e-commerce, and then corporate sales. It might not work in every organization, but it's a thought process.

Basically, what you want to do is target individuals, even if they are corporate individuals and work for a company. But, as they use it individually, they can just put in a credit card and pay \$99 a month or use a free version.

But when you start seeing traction in the organization, you have a sales organization that calls and says, 'Hey, I see you have 10 people who pay individually for our product. We can give you a better deal, and it has all of these other features, etc.'

Just force yourself to think if you can do that. It's not always possible.

I didn't even think about it. It was the year 2000; I didn't think about it, and I paid a huge price. Honestly. Later, I learned how to do it, but I was already on my way out.

Any questions?

[From the audience]: What do you do if you need the whole organization to work on this? So, it means that once you start, the benefits don't just come from the organization but from just one person?

I don't know how to solve your specific problem; I'm just saying I failed, and it was tremendously painful and stupid.

I mean, the company was successful, I made a lot of money, all of the good things, but that's not the point. The point is I felt like I tried six times to do it, and I failed each and every time. I knew this was the right thing to do and I couldn't do it.

Every time I failed was because the salespeople basically went rioting. They were literally rioting. They stood in front of my office and said they would not meet the quota because I had just ruined the quota by adding friction and inhibitors to their

sales.

[From the audience]: Was there no political solution to this challenge?

Yes, I could fire all of them, but that would be really stupid. I don't know.

I'm just saying to try and think this way, if you can. That's all I'm saying. I don't have solutions for everybody; I'm just sharing mistakes, which is the most valuable thing I can do.

Sales Organization – Quasi Growth Engine

- Sales organization – PEOPLE
- Sales growth linear with the number of sales people
- Key parameter: Cost of sales
 - Cost of sales = (total cost of the sales organization) / (revenue generated)
 - Cost of sales between 15% to 25% of sales, revenue
- Levers to reduce Cost of Sales in linear growth situation
 - A stable and reliable source of leads
 - Clear path, and training to reach quota in a few months
 - Build the entire process and compensation plans for B Players
 - Stability – make sure the plan allows B people to succeed

We talked about sales organizations, that they're comprised of people and sales growth is linear with the number of salespeople.

The reality is that most organizations hire salespeople—and I don't think they're stupid.

I'm going to introduce this very simple measure. It's a common measure; I didn't invent it. It's called the "cost of sales."

What is the **cost of sales**?

The cost of sales is the total cost of the sales organization, including all the managers, the commissions, the rent, Salesforce, etc.—everything you need to run the organization as an organization, divided by the revenue generated.

So, the cost of sales is usually between 15 to 25% of revenues. If you are at 15%, you're doing a really good job; if you are at 25%, you need to improve. We were hovering around 19% most of the time.

Again, it's fairly rigid.

Why is it rigid?

Because you hire a person, and you give them a quota. Essentially, the cost of the person and the quota is basically the cost of sales.

[From the audience]: Do you measure only the sales organization, not the marketing?

Without the marketing. Again, you can do whatever you want; you just have to understand what you measure.

So how do you reduce the cost of sales?

First and foremost, you need a stable and reliable source of leads. Without this, don't even bother hiring people.

Next, you need a clear path first and training on how to reach the quota in a few months.

What I'm showing you now was conceived by Peter Wehman. Peter Wehman is a physicist, MIT graduate, an engineer, a little autistic, and VP of Sales. I think he is a genius, and he built the sales organization at ZoomInfo on scientific or engineering grounds. He taught me a lot, which is what I'm telling you now.

So, think about the last line on this slide: when you build an organization that is going to grow (if you want to grow), you have to build it around "middle of the road people." You can't expect to bring in the best salespeople time and time again. It just won't happen.

So don't bring in "C people," but you should build the organization to perform well with "B people." These are reasonable salespeople who are willing to work reasonable hours. They will listen to you, but that's about it, nothing genius. They are not going to cold call or discover opportunities.

What you want is to give a lead and have them convert that lead to a sale and perform above the average of the organization. But for that, you need a stable source of leads, and you need to tell them how to do it, and you need to train them.

When we brought in a new person, they typically reached their quota in about four months. The quota was around \$800,000. They reached an \$800,000-a-year run rate in about four months because everything was standardized.

You want your sales team to be successful, so you want the compliment to be something that they are proud of.

What Peter did was make everybody, pretty much everybody, above quota.

I said to him, 'That's stupid. You put the quota below what they do. How do you get them to do above quota? You lowered the bar. That's easy. Lower the bar and everybody's above the bar.'

He says, 'Yeah, I know, I do it on purpose.'

When I asked him why, he said it was because then the sales team are excited, and everybody feels like a winner. He built confidence that the cost was the right cost. Philosophically, he wanted "B Players" to feel great that they succeeded. That's what he wanted, and he built it.

This is what you do if you have no choice.

Growth Engine - Sales

- Some common direct sales friction items
 - Fixed price vs. price negotiation (supermarket vs. bazaar)
 - Discounts
 - Lengthen negotiations
 - Discounts stay forever
 - Risk angering other customers
 - Promotions
 - "You get this price if you buy before the end of the month..."
 - Small customers negotiate and waste time more than big customers
 - Big corporation customers have strict internal processes
 - Internet security, SOC2, data security
 - Legal, compliance with laws,

The second thing I want to discuss is the friction points on the way to sales.

What I'm going to tell you now is similar to what I told you about people, which is kind of counter to what most people think.

Fixed price vs. negotiating

When you do B2B, most salespeople say, 'I need the ability to negotiate. I know the customer; I talked to the customer, and if I just gave him a 10 percent discount, he would have bought right now.'

The people who managed know exactly what I'm talking about.

I have yet to see a salesman not saying, 'The fact that you don't let me negotiate is stupid. It's against everything I did in my life. I'm a successful salesman; I'm above quota; why can't I discount the product?'

The reason is this: think about a supermarket where you get in a line and start negotiating about every piece of bread. I don't want to stand in that line.

Efficiency. When the price is fixed, it's far more efficient.

When you do **discounts**, here's what happens: the guy on the other side says, 'Wait a minute, he just gave me a 10% discount so that I move. I'm in no rush; if I wait another week I will get a 20% discount.'

[From the audience]: And by the end of the quarter—

Exactly right. I'll get to the end of the quarter, don't worry.

So, the customer says, 'I really really appreciate the 10% discount, but I need to talk to my CFO because as far as I remember, we don't have the budget for it.'

Then he comes back and says, 'My CFO really wanted to thank you, but he wants a 50% discount because we don't have the budget, and if you really want to sell this quarter, we need to do it with the budget we have.'

It lengthened the negotiations.

By the way, I failed. I'm telling you my wishful thinking. I failed; my salespeople discounted. But we brought it to a rational level because Peter Wehman was nice, and he allowed them to give a 10% discount.

But I told my salespeople, 'If the guy insists on a discount say, "Oh no problem, sir. Absolutely no problem, but in our company, the only person who has the authority to authorize a discount is the CEO. Here's the phone number of the CEO; I'm sure he will be happy to talk to you."

I never got a single phone call—maybe the sales team didn't say it, I don't know—but I never got a single phone call.

What do you do? You don't say "no," you just put friction on the way to a discount. That's all you do. Nobody wants to talk to the CEO of a big company.

The second problem with a discount is the next year, when you renew the product, customers will say, 'Wait a minute, last year you gave me a 20% discount and this year you want to take it away?'

You say, 'But we talked about it in the agreement.'

However, the customer will respond, 'Yeah I know we talked about it but if you want

me to renew, I need the discount.'

It's also worse when customers talk to one another, and they find one paid less than the other. It makes them really angry.

Promotions.

In many companies, they offer promotions for Christmas. People expect promotions year-round, that's the reality. So, they delay their purchase. That's what happens.

Why is the Christmas Season approximately 30% of sales of the year? Because customers just waited. That's all. It's really simple—it's not that they generated more money on Christmas Eve; they just waited.

"You get this price if you buy before the end of the month."

What we discovered is that small customers negotiate and waste more time than big customers.

Why?

Because they don't have money. It's really simple. They really don't have money, so they negotiate like crazy, and it's not worth the effort.

Another friction—for which there is nothing you can do except be ready—is that big customers have processes that you can't avoid, e.g., internet security, SOC2, data security, legal, compliance, etc.

You just have to manage it. The only way to deal with it, which we did at ZoomInfo, is to be prepared.

We had a stack of documents at ZoomInfo so that when the customer needed something, we could just pull the digital file and send it. Sometimes, we had all kinds of variants because some customers needed customized documents.

Growth Engine - Sales

Some common sales friction items

- Complicated, not clear pricing scheme. The simpler the better
- Complicated product options
- Multiple decisions vs. one decision
 - Automatic renewals
 - Amazon Prime – free two-day shipping on all products. Dramatically increased sales. Now, more than 200 million subscribers, at \$139/year, close to \$30 billion annually
 - Microsoft Office - \$99/year bundle. Word, Excel, PowerPoint, Outlook
 - Apple and Google phone app stores
 - All inclusive vacations – cruises, ClubMed,
- **Other examples?**

Friction with **Pricing Schemes** (they're complicated)

However, remember what I said about Apple. As I said, Steve Jobs is one of the people I really admire.

When he introduced the iPod, he also introduced iTunes. He made it really simple to buy a song, and lo and behold, regardless of how good the song was, it was 99 cents. That was it. It didn't matter what song you wanted; it was 99 cents. You didn't have to think about anything; it's 99 cents. This system reduced friction.

Friction with **Product Options**.

Sometimes, you look at a product and have no clue what's included, what's not, or what the details are, etc.

Friction with **Decision-Making**.

This is a big thing.

Every time you need to think about what you do, we lose you. So, multiple decisions are much worse than one decision, and I'll give examples of decision-making made easy.

Automatic Renewals: nowadays, all of us are aware of automatic renewals. When you purchase anything with renewals, they tell you it's going to automatically renew unless you notify them 30 days in advance.

Why do they do it?

So, you don't have to think. You can still cancel, but you don't have to think about renewal.

Amazon Prime: it's an ingenious thing. Prime offers free two-day shipping on all products. Its initial price was \$79; today, it's \$139.

The interesting thing is it increased sales dramatically because you don't have to think. You already paid for the freight. The system is built around you thinking that you're only paying for the products. You don't think about the shipping (because you paid for it in advance).

This increased sales significantly. I tried to find the numbers (I couldn't), but I remember reading that Amazon has 200 million subscribers at about \$140 each. That's about \$30 billion annually, just from those subscriptions.

That's the power of these types of programs.

Microsoft Office: they went through many iterations until they figured out the benefits of bundling their four main products (Word, Excel, PowerPoint, and Outlook).

Most households don't use all of them. They use one or two, but Microsoft made it simple: \$99 a year for the whole family to use on multiple devices. You don't have to think about it.

I have it on my laptop, I have it on my PC at home, I have it on my PC here, my wife has it—it's just simple. Keep it simple.

Phone App Stores: the first thing you do with an app store is enter your credit card and forget it's there. From then on, you just click, and something happens in the background, and you don't notice you've spent money. It's two levels away.

A credit card is already not "real" money; it's just a piece of plastic and a few numbers, and this is not even a credit card—it's just a click. No friction.

All-inclusive vacations: for example, cruises, Club Med, etc. Again, you don't need to think. You go with the kids, you eat breakfast, you drink, you eat ice cream. You don't need to think.

So again, the lesson is to remove friction. These are just examples. I'm not saying this is what you need to do; I'm just trying to explain what is included in a Growth Engine.

Every friction, every hindrance reduces the efficiency of the system.

Growth Engine – Branding and Marketing

Marketing is the process to generate leads and sales

Branding is the growth engine behind, making marketing easier

What are the inhibitors when doing common marketing activities?

- Email campaigns – most people don't read spam mail
- Advertising – expensive, usually poor results, high CAC
- Tradeshows – expensive, not scalable
- Content, blogs, press releases – hard to create new and interesting content on a regular basis
- Webinars – hard to produce, hard to bring people

What is the difference between branding and marketing?

Let's start with **marketing**. It's the process of generating leads and sales. It's direct: I want to generate leads; I want to generate sales.

Branding is the Growth Engine behind it. It just makes it easier to accomplish.

Think about branding as the foundation and you build marketing on top of it.

But what are the inhibitors when doing common marketing?

So, we all do marketing. As I said, you bring in a VP of Marketing, they change your logo, and then they start thinking, let's do **email campaigns**.

But, what's the problem with email campaigns? Nobody reads them.

I want to know how many of you read 100% of your emails.

No one?

Advertising: Advertising is an interesting example, but I don't have the time to cover it here.

Basically, advertising is expensive, and usually, Google and other platforms make sure that you pay what it's worth, so it's not a big bonanza. It also comes with a high customer acquisition cost (CAC).

Trade Shows: we talked about how they are expensive and not scalable.

Content: we talked about content, but it's hard to create new and interesting content.

Webinars: these are hard to produce.

So, how do you handle all of these inhibitors and frictions?

Growth Engine – Branding

- SEO Long Tail
- Free products
- Ideas for easily created interesting and engaging content
 - Thought Leadership – Research
 - People love and believe graphs and charts – factoids
 - Call and interview potential customers. Collect data
 - Start publishing a newsletter with factoids, and a new survey
 - Call and interview more customers, and repeat the process
 - Continue to collect data from cold calls
 - Organize and record Round Tables of industry leaders, by Zoom
 - Engage freshly retired industry leaders

I want to share with you a few ideas and each company can do it with their own ideas.

The two obvious ways that I often talk about are long-tail SEO and free products. But it's not always easy to come up with these ideas; therefore, I want to suggest another way of doing things, which I think can be adopted and done by many companies.

Ideas for easily creating interesting and engaging content:

1. Thought Leadership

What is Thought Leadership?

It's basically research, and the first point is the most important one: **there is a magic to numbers.**

If I tell you that 40% of stores don't have a planogram, it's really interesting, right? The fact that I have no clue what percent really have a planogram is irrelevant. You write that 40% don't have a planogram, and that's the number.

It's kind of bizarre.

You can then create a pie chart that says 30% of companies with up to 10 stores don't have a planogram, and X% of companies with 10 to 50 stores don't have one—it's amazing; people go bananas over it. Nobody asks where you got the numbers from. They just don't.

And people love it. They're called factoids. (I would call them "lie-oids," based on the word "lie.") But it doesn't matter that it's not a fact, people love pie charts, they love graphs, they love numbers presented nicely, graphically.

Don't ask them to do calculations; just show them the results.

If you can start collecting data from your market, you can start producing content that is very interesting because it's easy to digest.

I don't have to read an article; I don't have to read 500 words; I can glance at this pie chart, read the few lines below it, and I am so excited.

So, what do you do?

You start calling potential customers and you just interview them. Now you ask, 'Why would they talk to me?'

Chances are 9 out of 10 will not talk to you. But if ten people talk to you, you have enough data to start with. Just fudge the numbers: don't say '10% said X and 20% said Y'—use 9% this and 11% that so it looks like you have a bigger sample.

[From the audience]: People love talking about themselves.

They always love talking.

Once you get the initial data and you have the first factoid, send it to all your potential customers. Now you have something to tell them that is easy to digest—and it's interesting and it's cool.

Also, include another survey. Tell the customers what your next question is and where they can go to answer it. Now you will get 20 responses.

You then create another nice pie chart and a nice factoid, and you talk to them again.

Gradually, you start talking to a lot of people, and you start creating a more meaningful database. It also starts to be valuable for you.

What's really interesting is that a lot of companies don't do this. They have salespeople, they have BDRs (Business Development Representatives), and they talk to customers, but they never really systematically collect data.

However, if you give them a chart to complete when they speak to potential customers, they will do the job while they are trying to sell. Because the first thing you need to do in sales is understand your customer.

So, prepare the questions and tabulate it and you will get tremendously valuable data that you can publish. You can cross reference; you can do other things. It's very interesting.

The next thing to appear as Thought Leadership is to have the luminaries of the industry talk about you.

The reality is that they're not going to talk about you. Because they have never heard of you, they don't know who you are, and you're just bothering them—but that's not what you tell them.

You tell them that you're organizing a roundtable of the luminaries of the industry. That you already have others attending and you also want to include them because they have significant insight as the CXO of their company.

You will get people to join. You'll be surprised. Then, you tell the person you will send the discussion questions in advance and schedule the roundtable via Zoom, so it's very inexpensive and easy to do. Run the meeting for 30 minutes and record it, promising that you will send the recording as well as short videos about themselves that they can post wherever they want.

Essentially, you are producing content for them. Remember, people are vain; they really want to have videos of themselves saying smart things and being in this context, etc.—so they will participate.

When you organize this, have the logo of your company on one side of the screen, the logo of the speaker on another side, and a big title that says he is the CXO of such and such conglomerate.

Without saying anything, most people who see the video will believe the speakers are customers.

Why?

Because why else would they be at your roundtable?

You didn't believe it until two minutes ago.

You end up sending subtle messages that you are a Thought Leader in this industry.

Add to that all the charts and graphs that you produce, and you suddenly become a known entity that people talk about and think about.

The last point is that there is a group of people that really would love to talk to you now (retired industry leaders).

Most of you are too young, but there comes an age, usually around 67, that until yesterday

, you were sitting in a nice room, and people would come to you and say, 'Yonatan, what do I do here? I need your permission. I need your signature. We want you to speak here.'

You're busy.

The following day, you retire. You celebrate, you go to the golf club, and you say, 'Thank god I don't have to work anymore.'

The following month, you wake up in the morning, and you have no idea what you're going to do that day. You're sick and tired of playing golf; your wife gets on your nerves; and nobody really calls you. Nobody. You are a nobody.

Now you are very open to people saying, 'We really want to talk to you about the industry because after 30 years of being the CXO in X, you really understand the industry.'

You write his title with a small "ex" on the side, and they are the best people to engage with. They love to be engaged because they are bored, and nobody cares about them anymore.

What I'm trying to convey to you here about Growth Engines and Marketing is to stay away from what everybody is doing because it's not going to work. Try to be creative with how you create scalable content.

You can do a roundtable once a month easily. You don't have to think about the content. There are four other people who are going to talk. You only have to invent three questions, and they will talk to you. Believe me, you will have to stop them.

Once you host three roundtables, the participants will call you and ask when the next one is because they want to be included with their colleagues. You just have to start the engine, which is very different from writing blogs where you are online.

So, I'm trying to give you ideas on how to think about branding and marketing in ways that are Growth Engines and scalable. I hope I was successful.

Thank you.