

Dead Reckoning:

A business growth planning and management method – Part 1



In considering growth velocity and specific growth paths for their companies in the face of uncertain futures, managers typically attempt to produce within their companies strengths tailored to meet the anticipated challenges of a future based on prognostication. We argue that a better approach is to identify the company's existing growth drivers and to plan growth vectors and velocities based on these existing points of strength.

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Back in the early days of commercial flight, pilots faced a real problem. This was before the creation of the current standard flight routes now used nationally and worldwide and before the installation by the government of radio direction finder beacons and radar sites across the nation let alone provision of satellite GPS location services.

There are no route markers in the sky. Finding your way from one city to the next in those days was a very difficult proposition, especially when the weather was less than perfect. Winds could blow aircraft off course, and ground surface references were obscured by clouds or fog. So, in such an instance, how could the pilot set and maintain an accurate course?

Pilots in those days used a course-setting method called “dead reckoning” (a somewhat unfortunate name given the highly risky nature of early flight). This method used vector arithmetic to allow pilots to set and maintain a course and air speed that, generally, would bring the aircraft safely and effectively to the intended destination (see the text box on the next page for a brief introduction to dead reckoning).

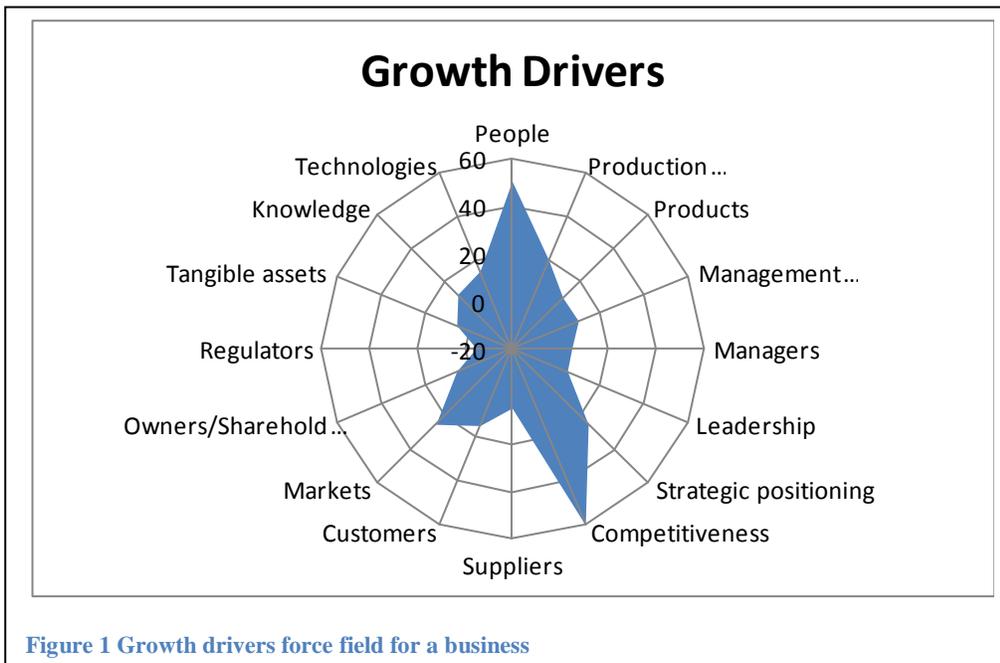
In dead reckoning, the pilot approximately knows the intended air speed of his craft for the duration of the flight, the direction and speed of the winds along the route, and the nominal course necessary to arrive at his intended destination given such an environment. Expressing each as a vector, he can use standard vector arithmetic to arrive at the course in magnetic degrees that he must maintain to counteract the forces of the winds and to hit his intended target on time.

In some ways, managing business growth is similar to piloting an airplane in these early days. Even if we know our intended destination (not always the case in my experience), forces in the business environment can alter our planned growth path and result in completely unintended outcomes. The net effect might be no growth or even decline.

Each business has a peculiar mix of factors which propel it down a unique growth path at a given speed, just as the airplane's engines propel it along. The ground speed of the enterprise's growth depends on the individual and combined strength of these factors, but also on factors in the company's environment. The environment provides opposing forces reducing growth rates, but can also supply impelling forces increasing growth rates greater than those that might be expected from strictly internal drivers.

As an example consider the force field diagram (Figure 1) for a particular business. Each of the vector line radiating out from the center indicates a particular factor or "driver" that promotes or inhibits growth for this specific enterprise.

Reading this particular diagram we can see that the company has exceptional strength in its employees, in its competitive position, and in its markets. It has some weaknesses in its products, management processes, managers, tangible assets, and knowledge base and particular problems with regulatory issues.



Dead Reckoning Method

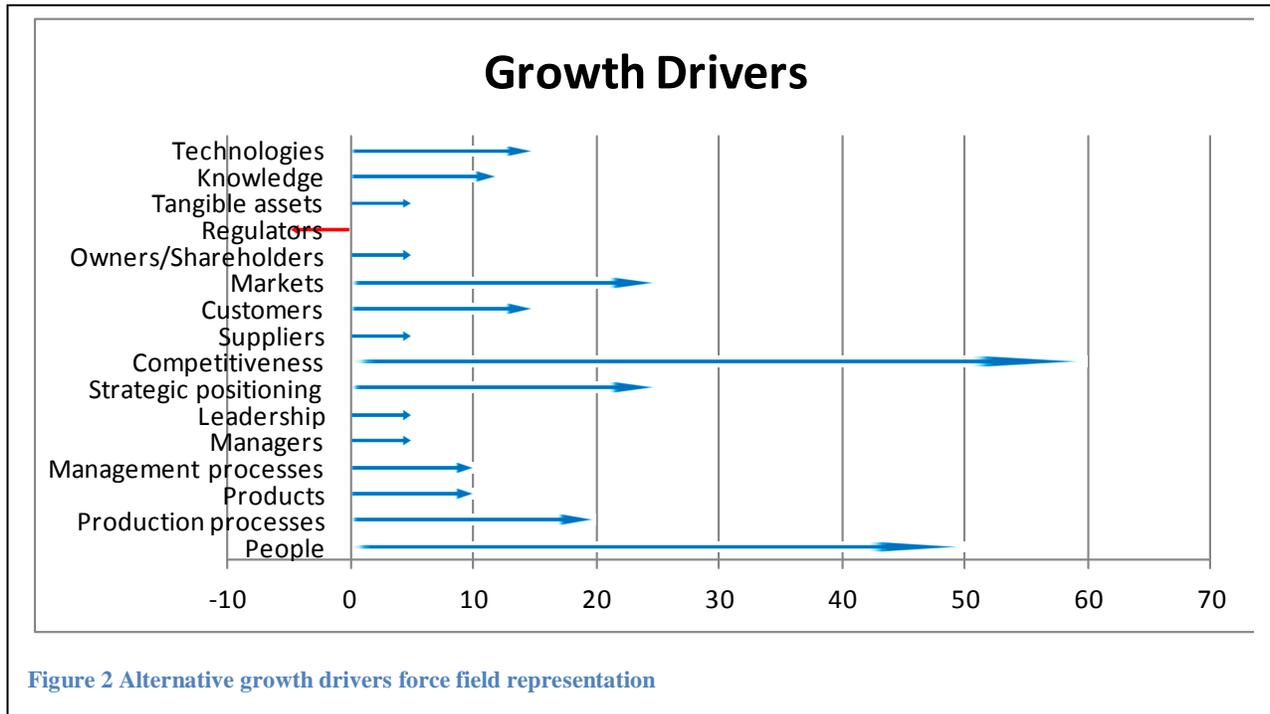
Let's say we want to fly from Chicago to New York and the wind is blowing from the Northeast at 50 knots (blue line). If we took the direct course and speed indicated by the red line, at the normal arrival time into New York we would instead be at the end of the lower blue arrow as a result of the wind drift. To get to New York on time with the current wind, we must set the course and speed indicated by the green line to counteract the effects of the NE wind. Using vector arithmetic we can calculate this course in degrees and the speed in knots necessary to achieve our desired result.

Given this profile, we would expect its competitiveness, employees, and market position to be its most valuable growth drivers. If this company embarks on a major growth initiative, its most effective weapons will be these.

So this company has three specific growth drivers:

people, competitive position, and market facility. However, it has mediocre contributors in the other measured growth factors and a major growth inhibitor in its relationship with its regulators and its regulatory environment.

The sum of forces among these factors will determine the company's rate of progress. So, in this case, the three growth drivers provide this company's forward momentum while regulatory issues will provide a drag on its growth. Figure 2, below, gives an alternative, and for some a more comprehensible



representation of the force field mapping of the same company's growth drivers and inhibitors.

So how fast can our company grow?

For pedagogical purposes we have unrealistically reduced the number of considered growth drivers in our example above. Obviously there are many more factors that help determine possible growth rates for this particular company. There may be hundreds of factors that have some effect on growth. In practice, we should select and use those drivers that result in the net growth vector that is best for our enterprise both in terms of direction and speed of growth.

As in flight, speed, along with direction, helps to determine the endpoint of our growth vector both in terms of distance travelled and in lateral positioning. The faster we go, the less buffeting we experience from external growth affecting factors along the way.

However, also as in flight, the faster we go, the more propulsive energy we use and that energy is not inexhaustible. There is an absolute limit to the speed of growth having to do with the quantity of resources available to fuel our growth engine. For instance, if we are a goods retailer, we cannot outgrow the geographical reach and material capacity of our goods delivery system without having to stop and expand that part of our business.

Finally, it is entirely possible to grow too fast. Just as flying overspeed can damage our airplane, so growing too rapidly can damage our business. A rate of growth that exhausts the capability of our control systems to manage or exceeds the ability of our structure to withstand resulting internal or external pressures can result in catastrophic failure.

What we want to achieve is the maximum rate of growth that our company can manage without damage to customer relations, employee morale, financial well-being, production quality, management effectiveness, or any of a dozen other structural components.

OK, What About Direction?

Part 2