Why Utilizing the "Carrot" and "Stick" Matters and What to do About It.

Strategies Necessary for Success in Today's Environment

In an attempt to be provocative, I often tell audiences that if I was working for an organization needing to be more innovative, I would want to give my team two weeks paid vacation, all expenses paid, with just one stipulation: that they spend their time in the San Francisco bay area doing nothing but going to parties. Indeed, it is truly a different world in the bay area. Everyone is interested in starting a new business; in fact, it is not uncommon to go to a party and find that the majority of people you meet are working for startups—each with a Ph. D. from Caltech or Stanford and a small salary without benefits. They know that if they work for three to five startups, on average, one of them will get sold or do an IPO (Initial Public Offering, *i.e.*, go public) and they'll be able to retire wealthy. In fact, I've even had a clerk at a local Safeway approach me to try out her new app!

After I delivered a presentation in Santa Clara, CA about a year ago, someone came up to me and asked: "What is it that has differentiated the winners from the losers for all of the new start-ups in the San Francisco bay area over the years?" Of course, there are a myriad of answers to this question; however, after she left, I thought about the answer over and over. What I came up with was certainly true of the technology winners—within and outside the San Francisco bay area:

- 1. They had built some form of strategic control (*e.g.*, an operating system or scale that was difficult to replicate),
- 2. They found a way to align incentives across both buyers and sellers (*e.g.,* Google's decision to give a 30% cut of app store revenue back to the carriers),
- 3. They recognized that they needed to exert control and influence across a series of interconnected industry value chains (*i.e.*, they recognized a broader "ecosystem").

Based on this observation, I had some working hypotheses. So, we began compiling data from multiple sources to test whether strategic control and vertical incentive alignment were indeed key factors for succeeding in today's environment. The first dataset included data on the financial performances of publicly traded U.S. companies from the Wharton Research Data Services (WRDS) database on financial performance. Specifically, data on measures of financial performance (Stock price, Net Income, RONA (Return on Net Assets), EBIT (earnings before interest, taxes and depreciation) and EBITA (earnings before interest, taxes, depreciation and amortization)) were collected for every U.S. firm in the S&P 500 (the largest 500 publicly traded firms) from 2009 to 2016.² For the second database, managers and industry analysts were interviewed in order to (subjectively) assess each firm's ability to align incentives and exert strategic control. Specifically, we asked them to rate each firm within their domain of expertise in terms of (i) the level of incentive alignment throughout the value chain (both upstream and downstream) and (ii) the firm's ability to capture point(s) of strategic control in the value chain,

¹ Thanks to Chanil Boo, then a Ph.D. Candidate at UNC Chapel Hill, now an Assistant Professor at CUNY, for much of this work.

² We excluded data during the "Great Recession" since this as an anomalous period in U.S. economic history, noting that this limits some of the interpretation of the results (as will be noted later in the chapter).

both on a scale of 1 to 10.3 The two data sources were combined into a large database that was analyzed in two ways:

- 1) through the use of statistics, specifically using multiple regression techniques and,
- 2) examination of the data for patterns and groupings.

DEFINITION: Multiple Regression.

Multiple regression is a statistical technique for examining the impact of one variable on another — in this case on stock price, income or earnings — holding all other variables in the study constant; it gives us the ability to isolate the impact of one variable, such as strategic control or vertical alignment.

Our hypotheses were strongly confirmed – companies that are succeeding today utilize both a "stick" (strategic control) and a "carrot" (vertical incentive alignment); they find points of strategic control, leverage them in the market and align external incentives effectively. The utilization of both strategic control and vertical incentive alignment has a profound impact on a firm success - particularly with respect to financial performance. The table below (which is not intended to be exhaustive but illustrative) lists just a few of the companies that our research has identified as either a success or failure in the game of strategic control (SC) and vertical incentive alignment (VIA),

Winners (High SC and/or VIA)

Amazon

Walmart

Alphabet (Google)

Losers (Low SC and VIA)

Borders, Geeks.com

JC Penney, Sears, Toys-R-Us

Yahoo

Apple, Samsung

Netflix

LinkedIn

Eastman Chemical
FedEx, Facebook

Yanoo

Cononical
Blockbuster

USPS

Zynga

Amazon, for example, has recognized that owning points of strategic throughout the value chain (and owning the value chain from back to front) can be a dominant strategic advantage that others cannot match. However, Walmart learned from P&G's initiative in the 1990s and now aligns incentives throughout *its* supply chain (*e.g.*, via inventory management processes and "scanbacks").

³ Note that to the extent the "experts" were not able to do a good job assessing the degree of strategic control and vertical incentive alignment (for example, if their assessments were random or subject to a significant degree of error), this would work against us—that is, make it substantially <u>more</u> difficult to find any result at all. Thus, the existence of any expert error actually makes these results stronger since we would be finding these strong results in spite of error that would make it less likely to find any result at all.

To illustrate how important this can be, we conducted a detailed econometric analysis, employing advanced multiple regression techniques to ascertain the post-downturn (2009 and forward) financial performances of the companies in our dataset via Compustat and Wharton's WRDS data. This detailed analysis revealed that:

- 23% of earnings growth (from 2009 to 2016) can be explained by strategic control alone:
- 34% of net income growth is explained by strategic control and vertical alignment;
- A full 41% of share price growth (from 2009 to 2016) is explained by just three factors: strategic control, vertical alignment and net income.

That's startling – to explain 41% of the (cross-sectional) variance in share price growth with just three items is phenomenal. In order to put this in perspective, an increase in strategic control from a 3 to an 8 on a 10-point scale (from low to high, where a 3 might be a company like Hulu, whereas an 8 might be a company like Amazon) would increase share price growth by a startling 35%. This drives home how important strategic control is to financial performance. In short, strategic control and vertical incentive alignment are material to a firm's financial performance.

We then divided the companies into four quadrants and gave each quadrant a name, "Update the Resume" (because you'll be looking for a job soon), "Don't Quit your Day Job" (because the company will do well and you should stick with it), "It's Fixable" (because it is) and "It's a Matter of Time" (because it's not fixable and it's a matter of time before the company faces hard times):

<u>Update the Resume</u>. 32% of the S&P 500 rated low on both incentive alignment and the ability to form points of strategic control. These firms were the least successful in terms of share price return, market share and long-term prospects for growth.

<u>Don't Quit your Day Job.</u> 19% were high on both strategic control and incentive alignment and these firms outperformed the rest of the sample in every metric, from share price and market share appreciation to long-term success and growth rates. Indeed, this is not surprising since aligned incentives and control of key points of strategic control (*e.g.*, Amazon's obsessive control of the value chain and Apple's control of the "Apple ecosystem") make it nearly impossible for a rival to displace the company that executes on this well.

<u>It's Fixable</u>. 19% of the firms in the S&P 500 had reasonably high points of strategic control (*e.g.*, Microsoft's Office and Facebook's social network); however, they were relatively weak on incentive alignment outside of the organization. For example, Surface sales or Microsoft mobile OS have performed nearly as well as the previous group in terms of short-term market performance; however, they will be under pressure unless they can solve the incentive alignment issue. Thus, their success is tenuous moving forward but fixable.

<u>It's a Matter of Time</u>. 30% of firms in the S&P 500 had low points of strategic control, but reasonably well-aligned vertical incentives (*e.g.*, Time Warner Cable's control of geographies and apartment complexes). These firms have done well in the sales channels and/or with customer

acquisition and retention strategies but will continue to be under the threat of competitive entry unless points of strategic control can be formed.

Point of Strategic Control

Low	High		
	Update the Resume	<u>It's Fixable</u>	
Weak	(Others will Dominate)	(Dominance under Pressure)	
	Barnes and Noble,	Microsoft,	
	JC Penney	Facebook, Twitter	
Vertical Incentive Alignment	(32%)	(19%)	
Alignment	It's a Matter of Time	Don't Quit your Day Job	
Strong	(Unsustainable Dominance)	(Sustainable Dominance)	
	Comcast,	Amazon, Walmart,	
	Spectrum	Google, Netflix, Apple	
	(30%)	(19%)	

The table above depicts the continuum that exists across points of strategic control (from low to high) and across degree of vertical incentive alignment (from weak to strong), in addition to some of the companies that fit into each quadrant (note that Barnes & Noble is not in the S&P 500). Some companies have moved significantly over time and their position may differ from country to country. For example, Nokia earns over 500 million Euros (*i.e.*, approximately \$700 million US) in patent revenue annually but has essentially fallen out of the handset race in the United States despite a significant presence in other parts of the world. Hence, in the market for handsets in the United States, Nokia would fall into the "Update the Resume" quadrant, but would fit in other quadrants for other lines of business and in other parts of the world.

We provide further perspective on why this matters financially by examining financial performance across the four groups and reporting this in the table below (all numbers represent percentage change from 2009 to 2016; the LL (Low/Low), LH (Low/High), HL (High/Low), and HH (High/High) designations refer to strategic control (Low or High) and vertical alignment (Low or High), respectively, and correspond to the four quadrants above):

	Share Price	RONA	EBIT	EBITA
"Update Resume" (LL)	0.256	-2.19	-0.560	-0.261
"Matter of Time" (LH)	0.498	1.44	-0.035	.0389
"It's Fixable" (HL)	0.347	1.55	0.332	1.057
"Don't Quit Day Job" (HH)	0.698	1.45	0.495	2.238

⁴ See *Wall Street Journal*, "Nokia Needs Time to Mine Patents," December 2013, page B14.

These numbers suggest the following:

- Those in the "LL" category (low in both Strategic Control and Vertical Incentive Alignment) had a 25.6% increase in share price from 2009 to 2016 (2009 as base); in contrast, companies that were high on both appreciated almost 70% over the same period.
- Return on Net Assets (RONA), Earnings before Interest and Taxes (EBIT) and Earnings before Interest, Taxes and Amortization (EBITA) were all *negative* for firms that were low on both strategic control and vertical incentive alignment; all were positive and grew significantly for those companies in the "Don't Quit the Day Job" (HH) category. Whereas EBITA more than doubled for those in the HH ("Don't Quit Your Day Job") category, it was actually negative for those low on both (*i.e.*, in the "Update the Resume" category).

Conclusion: the "Carrot and the Stick" approach of developing businesses around points of strategic control and vertical incentive alignment matters financially; firms that succeed in today's markets have effectively developed points of strategic control and align external incentives. You can utilize this to help identify key strategic issues to invest in moving forward. Use this to your advantage; sketch this out for your business.

An Important Caveat

In this study, we address only U.S. data during a period of economic growth (*i.e.*, coming out of the "Great Recession"). Furthermore, we focus only on larger firms (*i.e.*, those inside of the S&P 500). As such, we can, at this time, offer only anecdotal evidence as to how these results translate to economies outside of the United States, would play out in a downturn or recession and play out for smaller firms. We would suggest that this would indeed extend to other situations, countries, economies and economic climates; however, this would be pure speculation without further, detailed study. That said, much of the logic of this book is about how points of strategic control and vertical alignment are utilized by small and large firms alike in the United States and abroad (*e.g.*, Alibaba and Tencent in China and Tata Communications in India). Consequently, we suggest that the concepts discussed in this book apply universally in today's global markets; however, this chapter presents statistical evidence to confirm the importance of these concepts to the financial performances of U.S. firms during a period of economic growth.

Lessons for First Movers - Source of Advantages and Disadvantages via Strategic Control

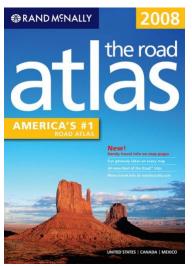
While much has been written about "first-mover advantages," there is an important distinction to be made here. When first movers are in product areas where attributes and features can be easily imitated, they can be at a disadvantage strategically since rivals may subsequently enter the market with improved and/or lower-cost alternatives or imitated attributes. Conversely, when firms can move first and secure critical *strategic control points* (*e.g.*, the pumps for Softsoap®), they can potentially attain long-term strategic gains. Thus, first-mover advantages are generally considerably stronger with respect to *strategic control points* versus attributes.

<u>Business lesson</u>: First Mover Advantages involving product attributes are generally fleeting since the attributes can generally be replicated and imitated. On the other hand, a first mover advantage that involves securing a point of strategic control is sustainable and often long-lasting by definition. Thus, always try to move first on points of strategic control and be wary of any advantages gained on offering attributes alone.

There are exceptions, of course. Certain attributes can be protected and thus can potentially be a source of long-term and sustainable competitive advantage. For example, Boeing developed longer wings on its new plane (the "777-X"), which can't fit between planes at gates at airports. It's solution? Folding wingtips, which result in planes that are 28% more fuel efficient (*vs.* competitive planes). Indeed, it will take competitors five to 10 years to incorporate such a design into competitive products. In agrichemicals, one ingenious company had the idea to put green dye in the chemical used to treat lawns and golf courses—as a visible sign that the product was working. Customers loved it, perceived it to be better at controlling the weeds (that made greens unsightly) and it would take competitors three to five years to have competitive products (*i.e.*, with a comparable green dye) since even inert ingredients require regulatory approval for "labeling." Thus, the first mover had a sustainable advantage in the interim.

These are exceptions, however; most attribute-based advantages can be imitated, replicated or even made better. Thus, you must determine what you can defend (*vs.* more typical attributes that competitors can copy). Indeed, the mapping industries (*e.g.*, paper, digital, aviation, marine, land, online and mobile) illustrate the fast-moving pace of today's markets and how first mover advantages work when they are created by owning points of strategic control that are created based on the advantages of product features or attributes. Probably the most visible mapping battle has been between Apple Maps and Google Maps on the mobile platforms (Apple's iOS in particular). Thus, we will start here; however, the battle for maps has been dramatic, far-reaching and has involved a myriad of players (*e.g.*, Rand McNally, Garmin, TomTom, NavTech, MapQuest, Google Maps and Apple Maps).

The battle for maps isn't about maps.



Imagine the following: you are about to embark on a journey from your home address to a place you haven't been before. How do you figure out how to get there? In the "old days" (*i.e.*, before about 2005), you would consult your handy Rand McNally atlas, write down the preferred route on a piece of paper and you were on your way. By July 2006, MapQuest (then a division of AOL, now a division of Verizon Media) had launched its beta version of an online tool that would allow you to "Build Your Route" and you could go online and plan each portion of your route, print it out and then follow the printed page throughout your journey - hoping that traffic was clear during that time of day.

At around the same time that this service was being launched, Google was acquiring Where 2 Technologies, a small mapping company written by two Danish brothers, Lars and Jens Rasmussen.

Building on this acquisition, Google launched Google Maps in June 2005 with U.S. road maps and then followed with integrated Google Earth and Satellite imagery in January 2006. Google Traffic

was integrated into the maps in February 2007 and "Street View" was added in May 2007. Indeed, much of this was happening behind the scenes without many of us even noticing.

The launch of the iPhone, iPad, Android operating system and digital maps with turn-by-turn navigation integrated into other third-party apps began a heated rivalry for an entirely free mapping service. From the time of the launch of the first-generation iPhone (on June 29, 2007) until September 18, 2012, mobile applications, through both Apple's iOS and Google's Android operation systems, used Google Maps for turn-by-turn navigation by employing GPS location-based services. However, Apple replaced Google Maps with Apple Maps as the default mapping system integrated in Apple (iOS) devices on September 19, 2012. On December 13, 2012, Google Maps was re-launched inside the Apple platform as a standalone app, although Apple Maps remained the default application for all other key apps.

Concurrent with much of this, a small Israeli startup, Waze Mobile, had introduced a free mobile map app that contained innovative, "community-driven" features. Originally launched as "FreeMap Israel" in 2006, it expanded to the United States and contained innovative features that allowed users to report accidents, traffic jams, speed and police traps and identify the cheapest, nearby fuel stations. In June 2013, Google purchased Waze for \$1.1 billion, adding the crowdsourced, community-driven features of Waze to their existing maps. Thus, the "old" days (i.e., six to seven years ago) of paper maps is an ancient memory; now the "market" is focused on free maps with integrated navigation, directions, local "crowdsourced" information and the battle is now not just about travel routing but also indoor mapping and promotional planning.

So, why would Apple spend so much development time competing with behemoth incumbents (e.g., Google and MapQuest)? Why are companies like Apple and Google so obsessed with winning the exceedingly expensive battle to give away *free* digital map applications?

Before 2010, Apple faced a difficult dilemma that had nothing to do with maps but had everything to do with maps. Specifically, the online environment was increasingly driven by location-based *mobile* advertising revenue (*vs.* traditional desktop and search-based advertising). For example, Google has been increasingly pushing advertisements within all mobile apps in order to diversify its ad revenue stream, as traditional search and desktop advertising prices and revenue growth fall.⁶ Both Google and Apple knew that the future of revenue for mobile applications was correlated with location-based services that Yelp, OpenTable and others need in order to bring their offerings to market. Furthermore, if you allow your map to access your locational "geo tag" (*i.e.*, where you are), as the vast majority of us do, your map provider knows where you are and how fast you're going. Indeed, this type of information is often quite valuable, as noted by the aforementioned insurance executive from Latin America.

Apple, like Google, has recognized that the future is about (i) information (*e.g.*, where you are, what you are doing, how fast you are going and what you are buying) as <u>the</u> point of strategic control that can be used to acquire mobile-based advertising revenue and (ii) aligning incentives

⁵ Source of the background information on Waze: https://en.wikipedia.org/wiki/Waze

⁶ See *Business Insider*, "Apple Maps is Catching up to Google Maps in the US," November 2013, http://www.businessinsider.com/apple-maps-is-catching-up-to-google-maps-in-the-us-2013-11#ixzz2mFI8IWe0

with players in this space. So, the search for a local hardware store on an Apple iOS device (*e.g.*, via an app like Yelp) will ultimately lead to an integrated iOS maps program (*i.e.*, Apple or Google Maps). This map contains a myriad of advertising opportunities and locational information (*e.g.*, subscriber movements and actions), which will be huge revenue sources in the near future. Thus, if one firm can harness the power of any app using locational data by offering a popular mapping service, they have a huge strategic advantage in the battle for the information coming off your smartphone.

Utilization of principles in this chapter leads us to address the following two questions:

A) What is the strategic control point for mobile-based data? Indeed, the valuable item is the data. When a firm owns access to such data, the revenue opportunities are almost limitless. Here, we suggest that there are two important points of data access control that we should focus on: the connection and the map. Currently, connection is fragmented. On your smartphone, you can connect numerous ways (e.g., various WiFi hotspots and cellular carriers); however, only the map is common to every application on the planet. Own the map and you own access to virtually all of the data coming off the phone. This is why the battle for maps has been so fierce; indeed, this is reminiscent of when Rand McNally locked up the distribution of paper maps in gas stations, 7-Elevens and Kmart's back in the day. Today, however, the control of "distribution" is very, very different. Good companies get this.

B) What is the point of aligned incentives? Note that if Apple Maps was the only integrated map in the apps on iOS devices, the incentives are aligned since the objective is for the customer to use the app in a user-friendly, seamless fashion. Indeed, this would be true regardless of the map (i.e., Apple or Google) that is integrated; however, the winner of the battle for default integration also wins the war. Hence, the *strategic control point* is key and aligned incentives enable the point of strategic control to work effectively. By integrating Apple Maps, Apple tried to move its model into the "Don't Quit Your Day Job" category (the bottom right in the table above), which is an area rich in revenue opportunities that are growing exponentially. The problem, of course, is that Apple Maps doesn't work well enough to be effective in this market. In any market, if your offering doesn't work—or isn't competitive—all else doesn't matter.

So, let's now look back with "20/20 hindsight" and think of the choices that Apple had during the latter portion of the last decade. We can represent these under two broad headings; however, naturally, there was a continuum and set of choices available to them:

choice A was for it to cede the "maps market" to Google and focus on revenue from hardware, software and via its apps store. Google, via various location-based services, would dominate the market for location-based advertising revenue. Due to Google's penchant for competing on hardware, software (Android OS and Google Play) and in the internet-provision space (through projects like Fiber and more recently Loon), this could prove disastrous for Apple as Google develops the revenue to dominate across multiple markets (including Apple's core).

Choice B was to compete directly with Google on maps in an attempt to gain a significant share in the mobile-based advertising space. Not only would this add to Apple's ability to compete across multiple markets but it would also cut into Google's revenue base as well. This would also give Apple ownership of a key strategic control point (i.e., ownership of the maps that are integrated into the operating system and apps on Apple iOS devices), much like Google owns that same point on Google's Android-based platforms.

So, who is winning the revenue-rich, "free" maps, digital mapping market today? Well, let's do the math. In the U.S., Google has 185.2 million map users (154.4 for Google Maps, 25.6 million for Waze and 5.2 million for Google earth), whereas Apple has a total of 23.3 million map users. That gives Google approximately an 80% market share with Apple at 10%, MapQuest at 10% and Yahoo! Maps at 1%.⁷ The evidence is clear that Google is winning this war across the board. This battle will continue, however, as its importance to information access is pivotal in multiple market opportunities.

The business lesson associated with the key strategic control points in these examples is that the future of advertising-based revenue is in location-based mobile applications, which are rich in sponsored advertising and tracking data. The key strategic control point for this revenue source (which is based on location- and customer-based information) is the mapping application that is integrated into the operating system (as the default application), giving the map provider access to critical information coming off the phone. This also aligns the incentive structure of both end users and app developers. Missteps on attributes (e.g., Apple's horrible reviews and the fiasco after its initial Maps launch) can be overcome as long as the strategic control points are in place and the incentives are aligned; conversely, you can have the best attributes in the world (e.g., Google Maps on iOS devices) and if someone else owns the point of strategic control, the attributes won't matter.

<u>Bottom line</u>: the battle for the maps is really about the battle for mobile location-based advertising revenue (illustrating the key points raised earlier).

⁷ Source: Verto Analytics. "Most Popular Mapping Apps in The United States as of April 2018, by Monthly Users (in Millions)." *Statista - The Statistics Portal*, Statista, www.statista.com/statistics/865413/most-popular-us-mapping-apps-ranked-by-audience/, Accessed 23 Mar 2019

⁸ This has progressed indoors; retailers are tracking movements and offering location-based promotions as well. See *CBS 17 (WNCN)*, "Some Retailers Tracking Shoppers' Movement Habits" http://www.wncn.com/story/24077303/some-retailers-tracking-shoppers-movements-habits

This example translates to related industries as well. For example, Rand McNally faced a difficult choice when Patriarch Partners LLC acquired it in a distress sale in 2007. By 2007, the paper maps company had essentially missed the digital revolution in the consumer market (where Google and Apple have been fighting so vigorously). "You have to get one step ahead of everybody else, not redo Google Maps. You tear the company thread by thread and try to find the thread that allows you to leapfrog and innovate," according to Lynn Tilton, head of Patriarch Partners in 2009.

Let's step back in time a bit and examine the choices faced by Rand McNally back in 2009, shortly after the acquisition:

- 1. One option considered and dismissed was attacking Google (and eventually Apple) Maps, MapQuest and others in the consumer mapping and mobile applications market head-on by building its own map app. Why was this dismissed? Clearly, Rand McNally had a brand presence and had they invested heavily in this market back in the early 2000s, one would imagine that they would be the likely winner in this market one that we've already established was a key *strategic control point* in the market for mobile location-based advertising spend a key growth driver in 2014 and beyond. However, in 2009, they were in absolutely no position to compete (and spend) head-to-head against Google and Apple, both of which were flush with cash to defend their market position in maps; this was not a fight Rand McNally could win, no matter how hard they tried.
- 2. So, if you couldn't realistically win *this strategic control point*, was there another attractive market wherein they already had a brand presence, expertise, a reasonable chance at succeeding, competencies and a *strategic control point*?

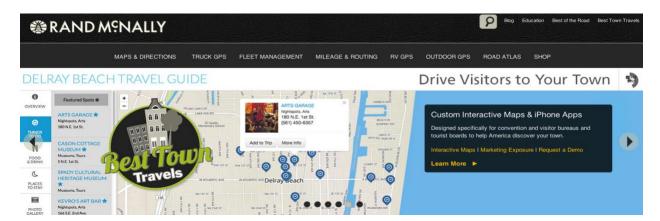
Fortunately, for Rand McNally, there was. They have become the "go to" app for truckers. In the last decade, it has dramatically transformed its business model to focus on location-based information in trucking, fleet management, mileage and routing, recreational vehicles. Due to a refocus on fleet management and trucking (*e.g.*, fleet location, mileage and optimization services), they – in principle – have found a key point of control in these markets, albeit in a smaller niche. Indeed, if you own the data, you are able to lead in the routing and management in trucking, RVs and outdoor; you can also lead in areas where Google and Apple have no real investment and no significant expertise.

To see why this is so important to Apple, Google, Rand McNally and others – and why it isn't about the maps per se, but about the data. For the truck driver, location, revenue-generating deals, ads, restaurants, truck stops and other local information and opportunities pop up on the screen. Indeed, owning (or at least leading) with fleet, trucking and RV opportunities, Rand McNally has put itself in a similar position to what Google and Apple did with iOS and Android platforms - albeit in a much smaller opportunity space.

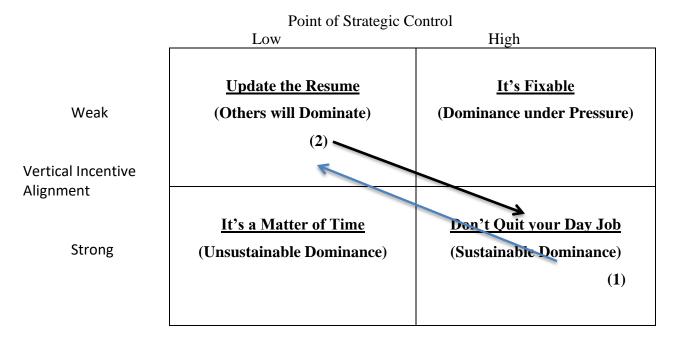
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⁹ Source: *Chicago Tribune*, October 5, 2009, "Rand McNally Maps a Digital Future," https://www.chicagotribune.com/news/ct-xpm-2009-10-05-0910040209-story.html

One could argue that given the situation Rand McNally faced from 2007 to 2009, this was likely the only viable competitive play that they could have made. The research discussed earlier in this chapter would suggest that a key to their success in this area will be how well they can align incentives (e.g., truckers, fleet managers and local merchants catering to these segments). Indeed, to the extent that they can align incentives, the strategy can actually pay off - and may have been the only smart move available to them. Time will tell if this will be successful; however, recognizing the points of strategic control and aligning incentives are key points to recognize above all else. After all, the battle for the maps isn't about the maps.



In the figure below, the lighter, shaded arrow (on the bottom) represents what happened, over time to Rand McNally as the market shifted to digital (moving from point 1 to 2). The darker arrow (*i.e.*, from point 2 to 1) represents the direction that Rand McNally has been attempting to achieve today, albeit in a smaller part of the market (*i.e.*, inside of the transportation and travel sector). To date, they have been successful in being the "go to app" for truckers in the United States. Moving to dominate in a smaller, niche market is indeed a strategic direction that makes sense for them today.



Utilizing this example, you can extend the framework to your firm and industry, building on earlier examples:

- 1. Using the scale presented earlier on strategic control (where ten means you own the patent or standard [i.e., complete control] and one represents a commodity product), rate your current level of strategic control.
- 2. How aligned are your external partners? Use a 10-point scale where ten means perfectly aligned (as in the P&G/Walmart example), one means "everyone is in it for himself or herself" (*i.e.*, no alignment) and five is the midpoint (*i.e.*, between the two extremes).
- 3. Plot your business on the four-quadrant diagram above and then plot your major competitors on the same diagram. In an ideal world, your business is on the bottom right and your competitors are on the top left (or at least somewhere on the left). If so, you're fine. If not, this can indicate what you need to focus on (as a business).

The example extends to multiple industries

The pace of transformation cuts across multiple industries. For example, in aerospace, Jeppesen, the leading company in commercial aviation mapping, is replacing reams upon reams of paper (distributed within plane cockpits via pilots) with iPads¹⁰ For decades, they printed key information (e.g., routes, warnings and changes in the approach structure) out of their massive facility in Englewood, Colorado (i.e., just outside of Denver) and sent, via FedEx, the paper plans, routes and information to pilots for their next route assignments. The sheer scale of this operation created a barrier to entry that made small-scale entry (i.e., competition) nearly impossible. In fact, at one point, they were the largest FedEx printing facility in the world. 11 Indeed, this move to digital formats—both in aviation and in its marine division—presents both opportunities and dangers. On the one hand, Jeppesen's strategic control is weaker (due to the lack of physical printing scale and distribution); however, Jeppesen may be able to align incentives (e.g., with pilots and local merchants), much the same way that Rand McNally is doing in the trucking industry (via links to other local businesses, information and opportunities, as in the image above). In short, the digital revolution has moved them in the direction of the arrow below and unless they can maintain a point of strategic control, others will be lured into the market for revenue (from ancillary services and advertising)—eventually weakening Jeppesen's enviable market share position in the aviation market.

There are multiple examples across multiple industries wherein this process is replicated. Detailed examples include (i) Amazon using its clout (*i.e.*, *strategic control point*) to launch Amazon Local (a local services version of Amazon.com), Amazon Go (if you've ever visited one of its pilot stores, you know how amazing it is) and now via Whole Foods, (ii) Google's Project Loon (an attempt to secure a point of strategic control for internet provision via low-altitude balloons), (iii) the battle for home automation (*e.g.*, Microsoft's HomeOS *vs.* Google), and the list goes on. Indeed, the convergence revolution has transformed entire industries by lowering the points of

¹⁰ See the *Wall Street Journal*, "iPads help airlines Jettison Costly Load of Cockpit Paper," June 27, 2013, https://www.wsj.com/articles/SB10001424127887323998604578567720762762606

¹¹ Source: visit to company headquarters in Englewood Colorado.

strategic control – for example, traditional hotels have lost a key point of strategic control due to the introduction of Airbnb (and similar sites) and taxi companies have lost their point of strategic control (the medallions) through apps like Uber and others.

Always know where the points of strategic control are.