



## LEADING CHANGE AND RADICAL INNOVATION: BIG BANG VS. START SMALL

### BOTCHING CHANGE MANAGEMENT & RADICAL INNOVATION

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Below is the headline and excerpt from the September 26 edition of *The Wall Street Journal*:

#### *Lands' End CEO Federica Marchionni Is Pushed Out*

**Board was concerned Marchionni was trying to make too many changes too quickly, people familiar with the matter said.**

Federica Marchionni was forced out as chief executive of Lands' End Inc., capping a tumultuous 19 months on the job in which she tried to fashion broad changes at the catalog retailer that roiled employees and turned off shoppers. The former Ferrari and Dolce & Gabbana executive sought to inject more style into the maker of outdoorsy, casual clothes by adding slimmer-fits, stiletto heels and a new line of active wear. She overhauled the catalog, hired celebrity photographers and tapped a Vogue stylist for input. A photo shoot for the new active wear line took place recently in the Marshall Islands, a costly location in the Pacific Ocean, according to people familiar with the situation. Despite those efforts, the 44-year-old CEO was never able to get Lands' End's employees to buy into her vision.

This is nothing new. Many such incidents are reported each year: major change initiatives resulting in near catastrophic failure.

Is there a good way to lead change and/or introduce radical innovation when many uncertainties and ambiguities lurk in the background? Yes, there is. A proven approach for advancing into the future under conditions of uncertainty is a methodology called Lean Startup (sidebar). Although currently a hot topic in the startup/entrepreneurship world, this approach is unfamiliar to many managers in established firms and its techniques are rarely found in most executive circles. The Lean Startup concepts and their application, however, have a long history: It was consistently used by Thomas Edison 120 years ago, then by the British army tank division and the RAF in World War I, and then again for the Manhattan Project in World War II, and it was extensively employed by NASA from 1958 to 1972 for their Gemini, Mercury, and Apollo missions.

#### Lean Startup

The Lean Startup methodology is a scientific approach to developing businesses and products based on a build-measure-learn feedback loop that employs the practices of hypothesis-driven experimentation, iterative product/service releases, and validated learning. Coined by Eric Ries as a method for launching new ventures, the Lean Startup approach can be applied to the introduction or start of any major innovation or change process.

The current Lean Startup phenomenon is about five years old, but it is very much an old pig with new lipstick. Earlier incarnations abound. In 2009, strategy professor Rita McGrath termed it “discovery driven growth.” In the mid-1990s, software developers started using “agile scrum” project management techniques, based on the mid-1980s work of Takeuchi and Nonaka as an alternative to traditional Waterfall methodologies. In 1978, Henry Mintzberg termed the approach “emergent strategy.” Most of today’s Lean Startup (Steve Blank 2012, Eric Reis 2011, and Ash Maurya 2012) concepts, principles and frameworks profess the same emergent strategy, and at Babson, our entrepreneurship and innovation faculty has been teaching this method for decades.

### Lands’ End Is Not Alone!

On November 29, 2013, JC Penny (JCP)—an original member of the S&P 500 since 1957—was kicked off the list due to its sharp decline in market value. While JCP still had more than a 1,000 stores and 2012 revenues stood at \$17B, the historic 100+-year-old U.S. mid-range department store had fallen on hard times following the 2008 economic meltdown. Finally, JCP’s famous board member William Ackman pushed for new leadership, and in November 2011, the company named former Apple retail-star Ron Johnson as JCP’s new CEO.

Soon after his appointment, Johnson introduced numerous major changes. In December 2011, JCP acquired 16% of Martha Stewart Living Omnimedia stock and planned to put “mini-Martha Stewart shops” in many of its stores. A month later, Johnson introduced new pricing strategies, replacing popular JCP coupons with “Every Day,” “Monthly Value,” and “Best Price” campaigns and using whole number prices in place of the common retail tactic of ending prices in a “9” or “7,” (i.e., \$13.99). In August 2012, JCP launched an overhaul of the home department in 500 stores. In November 2013, despite falling sales and a Q3 loss of \$123M, CEO Johnson said the firm wouldn’t diverge from his strategy. By the end of Johnson’s first year, JCP had amassed nearly \$1 billion in losses and a 25% drop in revenues. In April 2013, the new CEO was fired.

Failed efforts to implement major change is not limited to large corporations. On October 1, 2013, the much anticipated “Obamacare” website, healthcare.gov, went live. And, almost immediately, it crashed, due primarily to an unanticipated surge in web traffic. Even those who were able to get onto the site faced a multitude of issues and errors—confusing instructions, missing drop-down tools, unexpected hang-ups, and puzzling design. Those who gave up and called the customer service reps didn’t fare any better. The reps couldn’t access the online marketplace either.

In February 2013, an internet course offered by Georgia Tech and hosted by the leading online learning firm Coursera promised to teach 40,000 students how to create their own massively open online courses. The platform asked participants to sign up using Google Docs, but the crush of students trying to sign up crashed the system. According to Google, Google Docs only allows 50 people to edit a document simultaneously. A small detail, just one unknown variable overlooked by the planners, brought the website down.

In March 2013, the high-flying Canadian yoga apparel maker and retailer Lululemon had to recall more than \$60 million worth of women’s yoga pants for being too transparent. Within two months, the company announced first “product chief to exit.” and then the CEO was “stepping down.”

As we all know, expressions like “to exit,” “stepping down,” “pursuing other opportunities,” and “wants to spend more time with family,” are just euphemisms for getting FIRED! Why do CEOs and executives get fired? The No. 1 reason is mismanaging large-scale change and radical innovation projects.

## Analytical vs. Emergent Strategies for Growth, Innovation, and Change

All radical innovation and complex change management projects involve unknowns and risk to varying degrees. Understanding the difference between these characteristics and the extent to which each relates to a project is critical to determining the best path forward. Unknowns involve uncertainty and/or ambiguity, neither of which is amenable to analysis, and both of which require an “emergent” strategy: Analysis after Action. Risk, on the other hand, is about the “known” world—known variables and existing data—which one can analyze and then predict, plan and take action: Analysis before Action

Traditional approaches to radical innovation and large-scale change management projects focus on minimizing and managing risk and entail conducting extensive analysis before taking action. BHAGs (Big Hairy Audacious Goals) are announced with much fanfare and approached by first scanning the environment (SWOT, STEP, Value Chain Analysis) and then setting a project plan to develop and execute a strategy. Trend lines are predicted based on IRRs and WACC or projected cost benefits, KPIs and milestones are set, and budgets are allocated. When project performance does not meet projections, money and energy is spent to get the project back onto the predicted trend line. Unfortunately, heads roll when the predicted future fails to materialize.

This analytical approach is called “predictive logic” and is based on a series of assumptions: (1) all process and outcome variables are known and can be accounted for ex-ante, (2) existing data from past projects can be used to predict the process and outcome of the project, (3) some variation to projections can be accommodated along the way using managerial judgment, and (4) failure is not an option. I like to call it the *Big Bang* approach to change. Most large firms, governments, and institutions predominantly still prefer this mode of going into the future. The firms, organizations, and individuals who principally use this strategy I call *Planners*.

While all radical innovation and complex change management projects entail risk, most also have a number of unknowns, of which there are two types—known unknowns and unknown unknowns. Uncertainty is about known unknowns: situations where you know which variables may impact the process and outcome of the project, but you lack historical data on which to base probabilistic numbers. Ambiguity is a second order uncertainty. One cannot surmise what variables may be lurking in the background; they only appear once the project is underway. Unfortunately, analytical strategies cannot be applied to unknowns ex-ante. Thus, when there are a number of unknown variables, most analysis, and a priori prediction of outcomes, becomes a futile exercise.

Managing projects in the presence of unknowns becomes a radically different exercise. Seasoned entrepreneurs, innovators, and VCs test their ideas for potential opportunities predominantly through Analysis after Action. They Think Big, but Start Small, launching several small projects to test their hypotheses. These testers prototype rapidly and try to establish proof of concept through quick feedback from the market—voice of customer, voice of technology, voice of supply, and voice of demand. They try to fail fast, fail cheap, and fail smart. In doing so, they learn quickly by uncovering hitherto unknown variables and/or creating data where there had been none. With this new knowledge, these innovators refine their hypotheses and business models and continue to iterate this process of prototyping, failing, uncovering unknowns, and establishing a viable business model. They add resources only after a positive proof of concept has been established, slowly replicating and scaling the successful business model. This approach to going into the future I call *Start Small*; in contrast to the Big Bang approach described previously. The firms that employ this technique are *Testers* (Figures 1&2).

Figure 3 shows the Start Small approach adopted by NASA to put a man on the moon, with progressive levels of learning (orbit duration, spending, and number of astronauts in a module) within arguably one of the most complex projects ever undertaken.

Figure 1



Figure 2

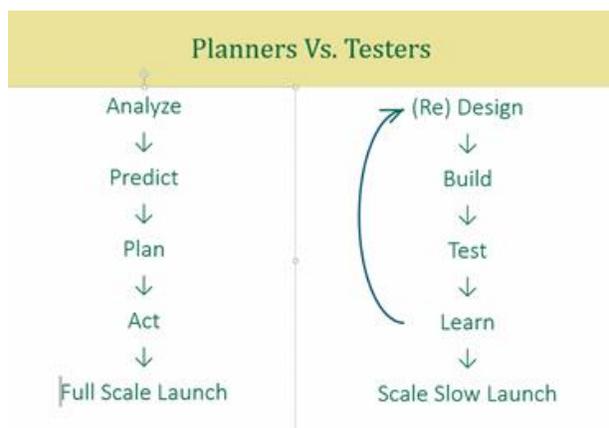


Figure 3

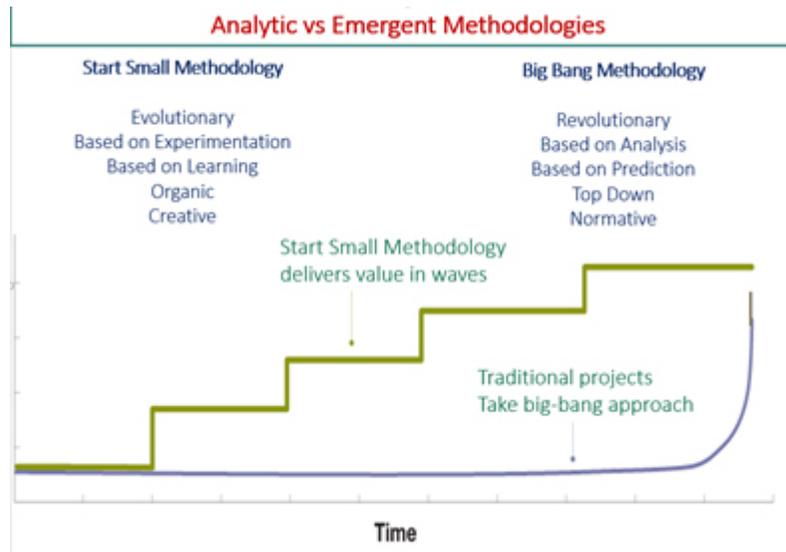
### Race to the Moon

Mercury	Gemini	Apollo
1958-1963	1961-1966	1961-1972
\$277M (1965)	\$1.3B (1967)	25.4B (1973)
1 astronaut	2 astronauts	3 astronauts
6 Flights	10 Flights	17 Flights
Orbits (Duration hours): 0 (0.25) → 0 (0.25) → 3 (5) → 3 (5) → 6 (9) → 22 (35)	Extra Vehicular Activity	Orbit Moon
Man into space	Orbital Maneuvering	Descend near moon
Sub-Orbital Flight	Rendezvous & Docking	Bigger Rocket
Orbital Flight	Longer Duration	Land on Moon
11 successes	Guidance & Navigation	
3 failures	12 successes	
	2 partial failures	1 mega failure (Apollo 1)

### Which Approach Is Best? Ask the Right Question

I am not suggesting that one approach is inherently good and the other bad. The right question to ask is: When do you use analytical strategies and when do you use emergent strategies? The Big Bang approach to change or project management works very well for version 3 or 4 of a product. For incremental innovations and for the known world—known technology, known products, known customers, known business models etc.—when we have a lot of data and prior experience, the Big Bang approach can be very effective. In the unknown world, however, where we have unproven technologies, unidentified customers, and/or untested business models—and for radical innovation or major organizational change the Start Small approach works much better. Both approaches can deliver results—if they are used appropriately in the right circumstances—though through very different means (Figure 4).

Figure 4



### Why Big Bang Failures Keep Recurring

Business is the only discipline where we keep reinventing the same basic principles again and again and again. This constant reinvention or revisiting of business fundamentals is because of executives' and leaders' inability to learn. Somehow, executives and management leaders seem to be the only people who have the luxury to not learn and not be up to date. Architects cannot sign off on plans if they do not have basic professional certification. Pharmacists cannot dish out medicines if they are not aware of the side effects of specific drugs. Yet, executives absolutely don't have to learn the basic concepts of management, as Elon Musk would term—1st Principles.

### Take-Aways

1. Risk is different from Uncertainty. Risk is about the known world with known variables and with historical data. Risk can be calculated and failure can be mitigated by careful planning.
2. Most enterprise change (big or small), large project management and radical innovation (as against incremental) has many unknowns and cannot be estimated or predicted ex-ante.
3. In the presence of unknowns (uncertainty and ambiguity), there is only one way to go forward—trial and error; testing, testing, testing; experimentation. You cannot predict your way into the future.
4. Traditional Big Bang project management may work fine for incremental innovation or later generation projects in the known world—when most variables are known. But, Start Small project management is a sine-qua-non in the presence of uncertainty and ambiguity.
5. Business executives are poor students of history. They keep repeating the same mistakes again and again and again. Executives who have not heard of “Lean Startup” or “Agile” should be fired! Period! They are unfit to lead enterprises. All boards should require executives to know the 1st Principles of leading change and/or radical innovation, initiatives that are fraught with uncertainty and ambiguity.