Innovation, Fads and Long-Term Value in Management Accounting

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Innovation

• “Innovate or die, we are told. It's the core of excellence and the root of entrepreneurship. It's the attacker's advantage, the new imperative, the explosion, the dilemma and the solution.

• (You can play this game at home, too, with any of the 49,529 titles that come up for ‘innovation’ on Amazon.)”
  - Carleen Hawn, “If he’s so smart ....” Fast Company, January 2004
Some popular wisdom about innovation

Not All Innovation Is Equal. Technical innovation [elegant engineering] will earn you lots of adoring fans. Business-model innovation will earn you lots of money.

Innovate for Cash, Not Cachet. If your cool new thing doesn't generate enough money to cover costs and make a profit, it isn’t innovation. It's art.

Attention Deficit Has No Place Here. Every innovation worth doing deserves your commitment. Don’t leap from one new thing to another. [Hawn, Fast Company, 2004]

Suggests management accounting (cost and profit measurement) provides an important reality check for product innovators.
Management Accounting and Innovation

• How much of a reality check can management accounting provide?
  – Can we actually tell if an innovative product is making a profit?

• Management accounting is struggling with its own innovations
  – Do our innovations make a profit?
  – Do we “leap from one new thing to another”?
Management accounting: a recent history of innovation

JIT    EVA    ABC    TQM    Lean
BSC    CFROI   SPMS
Beyond Budgeting    ABM
What have we learned?

- Before we rush to the next innovation (“the new new thing”) ….
- How successful have these innovations been over the last twenty years, and why (not)?
- Does this tell us anything about managing future innovation?
Some definitions and limitations

- Management accounting innovations have many roles and purposes
  - “Success” could mean many things
- This presentation looks at one espoused purpose of MA innovations
  - Helping for-profit firms make measurable profit
- If I am an owner or a manager wanting to make a profit, how likely is it that ABC/EVA/BSC, etc. will help me do this?
No clear answer because …

• Single cases are hard to generalize
  – Some are highly successful but majority of implementations are said to be failures

• Data and statistical analysis problems plague large-sample studies

• Both single-case and large-sample results are unstable over time
  – Enthusiastic adopters often abandon them in disappointment
  – Firms that abandon innovations sometimes return to them later

• Presentation focuses on last problem
The problem of fad-like cycling in MA innovations

- **Short-term:** “flavor of the month” adoption and abandonment of innovations
  - Leads to employee cynicism about management innovations
  - Wasted effort
- **Long-term:** creation, death and rebirth of management accounting practices
  - Residual income and EVA
  - Recycled budgeting issues in “beyond budgeting” and ABB
  - Old and new ABC
- **If “old innovations” are valuable, not fads, why do they drop out of sight for a time and then return?**
Cycles of adoption and abandonment

• Some adoption and abandonment has clear economic grounds
  – E.g., residual income measures, which account for cost of equity capital, receive more attention in periods when cost of equity capital is high

• Some adoption and abandonment is due to consultants'/journalists'/academics’ short-term success in selling “defective products” to naïve buyers who abandon them in disappointment

• Unlikely that these two reasons account for all the cycling
Cycling as a prediction problem

• Firms seem to adopt innovations with high expectations of success, which are quite often not realized

• Why is this puzzling? Predictions can never be perfect

• Problem is prediction bias:
  - Predictions are often erroneous but unbiased
  - Professional weather forecast may be wrong about whether the sun will shine tomorrow afternoon or not, but does not predict twice as many sunny days as actually occur
  - Even amateurs and optimists don’t expect sunny winters in Michigan or Manchester
  - But innovation adopters predict too many sunny days
Biased predictions about innovations

• Speed, probability, and magnitude of profit increases from innovations are probably systematically overestimated by adopters
• Overestimates and subsequent disappointments help drive cycles of adoption and abandonment -- and sometimes return to a modified version of innovation)
• Why so much overestimation?
  – Sellers of innovation (external or internal to firm) have incentives to overestimate
  – But why do buyers agree - so repeatedly, for so long?
• For the future: Could we have less biased estimation? Less cycling?
What do we know about sources of judgment bias?

- Researchers in behavioral economics and cognitive psychology study judgment biases
  - Major change in economic theory (formerly assumed unbiased judgments)
  - Nobel Prize in economics (2002) to Daniel Kahneman for work on judgment biases

- Judgment biases result from the use of simplifying judgment strategies (heuristics)
- Heuristics work well much of the time but result in extreme bias in specific cases and some bias on average
Common examples of judgment biases

• Rate your driving skills
  - Top 25% of drivers? Bottom 25%? Middle?
  - Typically 90% of drivers rate themselves in top 50%
  - Similar responses for management skills
  - Note: people sometimes back these judgments with their money and their lives

• How many people in the room do you think own a (popular but not universal new product)?
  - Owners estimate a much higher percentage than non-owners
  - “False consensus effect” = belief that “other people believe/choose as I do,” more than is actually the case
One more judgment bias

• You are betting on coin flips and beginning to wonder if the coin is not fair
• Which set of events is more suspicious?
  – 4 heads in 5 flips
  – 30 heads in 50 flips
• Second event is less likely with a fair coin than the first

• People don’t intuitively gauge uncertainty well and calibrate their judgments appropriately to deal with it
Simplifying approaches, management accounting innovations, and cycling

• Management accounting innovations are often attempts to simplify the complexities of business moderately (not extremely)
  – ABC is less complex than real cost-generation processes but more complex than volume-based systems
  – Strategic performance measurement systems provide simplified representations of strategy and performance
    • 12 measures do not completely represent business performance, but they represent more than current profit does

• Partial simplification of complex systems often leads to cycling
Example 1: Improving the cost system

• Suppose product cost estimation is important for a firm that currently has a crude system with two indirect cost pools
  – Machine costs, allocated based on machine hours (not perfect; not clear what would be better)
  – All other costs, allocated based on labor costs (clearly wrong, and better alternatives are obvious: pool can be split based on activities and better drivers can be used)

• Strategy: let’s at least fix the “other costs” pool
  – This would be a gain in itself, and if it is a success, maybe then we can tackle the other pool
Simplification problem: countervailing errors

• Suppose, before improvement in system
  – Allocation from other-cost pool to product X is too large
  – Allocation from machine-cost pool to product X is too small
    • Estimated cost of X is not too misleading

• After improvement in other-cost allocation only
  • Estimated cost of X has become more misleading
    – Countervailing errors of this kind are fairly common
Countervailing errors and cycling

• Initial enthusiasm
  – We know allocations from first cost pool are very wrong, and fixing them has to be beneficial

• Disappointment
  – New product costs don’t strike everyone as more convincing
  – Decisions about product X made on the basis of new costs are not more profitable

• New cost system loses support
  – Firm may have learned a good deal about activity costs in “all other costs” pool!
    • But expectation was better product-cost estimates
  – Discontent with product costs persists, at some point another innovation may be tried
Example 2: innovations and false consensus

• False consensus effect
  – If I am enthusiastic about flat-screen televisions (balanced scorecards, etc.) other people must be too

• Innovations sometimes fail because of initial underestimation of magnitude and persistence of conflict

• Management accounting innovations create winners and losers
  – Often an understated point in the professional-magazine articles describing MA innovations for practicing managers
Underestimating conflict as simplification

• First-level (simple) thinking: If the other party’s actions didn’t matter, what action choice would be best for me?
  – No concern about conflict here

• Second (harder) level: What does the other party think is the best action choice for her (apart from my actions), and how does that affect what I should do?
  – If what she wants is not what I want, maybe I need some kind of strategy to deal with her, but …

• Third (even harder) level: What does she think I think?
  – Will she predict my strategy and counter it? Can I predict what she will predict and counter that? Can she predict what I predict she will predict …?

• Maybe I should just push for what I think is best and not bother with all this!
  – I can probably make it work, since my management skills are better than most ….
Underprediction of conflict and cycling

- New performance measurement system requires extensive cooperation to develop measures
- It is not in some individuals’ interests to cooperate
  - This was not fully incorporated into planning
- Disappointment, abandonment …
  - If the firm concludes the problem was with this particular innovation (not generic underestimation of conflict), then it will try the next popular innovation
    - Perhaps with similar underestimation of conflict and similar results
Example 3: Insensitivity to uncertainty

• We know current profit is a myopic measure of managers’ performance, so we also make managers responsible for a measure of customer satisfaction
• Customer satisfaction is measured carefully, by an independent professional polling organization
• This organization’s services are costly, so we buy fairly small samples from them
  – We know this can be a problem so only take action when the sample values seem fairly extreme
Uncertainty judgments and cycling

• Subjective judgment about what constitutes an extreme sample value is not always very good!
  – How fair was that coin?
• Over time it becomes evident that very high and low customer satisfaction scores are unreliable, and evaluations based on them have often been wrong
  – But maybe it is not clear why
• Disappointment, declining use of customer satisfaction measure
• But current profit is still a myopic measure, so in time the firm will try something else to supplement it …
Where does this leave us?

- Alternative to “evil-consultant” explanation of cycling may be valuable
- But is there a solution – can we deal well enough with complexity to reduce cycles of over-enthusiasm and disappointment?
  - Only up to a point
A longer history of MA innovation: do we ever get it right?

• 19th century: fixed assets poorly accounted for, investment decisions poorly analyzed

• Innovation: return on investment measures
  – Down side: no allowance for time value of money in long-term investments
  – Some unprofitable decisions, disappointment

• Innovation: net present value analysis
  – Down side: no allowance for value of flexibility
  – Some unprofitable decisions, disappointment

• Innovation: real options analysis
  – Down side: not clear we know how to do much of the necessary modeling …
• ROI, net present value, and real options are not secure paths to profitability
• Would we rather not know about these techniques and go back to ignoring fixed assets as much as possible?
Damping the cycles

• Less enthusiastic dogmatism about proposed innovations
• Awareness of remaining simplifications in innovative systems