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Innovation management best practices

Wanting to improve innovation? Know your starting point!

What is the point of launching new initiatives to improve innovation if the problem has not been defined nor well understood?

White & Partners have researched over 40 highly-innovative companies which have built and sustained innovation over decades. The question posed was 'what are the policies and management practices in use by these companies which have contributed to their innovativeness?'

Understanding the current situation in any organization is important if one wants to address obvious or latent issues that could detract or derail initiatives to improve innovation. We present a 'litmus test' for innovation and suggest several starting points if the goal is to improve innovativeness. We offer some ideas on how to go about getting a handle on your current 'situation'.

Equally important is the need to put in place a means of measuring the progress of innovation. While benchmarks for innovation can be complex, having a base line to compare progress is essential and, in itself, a means of motivating the organization.

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What do you – the CEO, the Board - want?

To innovate or to follow?

This is not an easy decision to make. Being an innovator means assuming a greater risk, albeit making fully informed decisions which mitigate the risk. The choice could be to remain slightly behind new, risky developments, just far enough behind to keep up and respond to competitive initiatives. Research indicates that being a follower is the choice of most companies so, if this is your choice, you have company.

In larger companies, the desire to be innovative or to sustain an innovation tradition, is always a challenge. Bureaucracy, size, layers of management, often conspire against being innovative. Even good ideas may not surface and seldom become commercialized.

Our research indicates that there many ways for a company to sustain innovation and, indeed, to build innovation, if it is lacking. Few of these 'ways' are profound but it is in the judicious choice of the most appropriate policies and management practices, taken as a whole, that provides the answer to building and sustaining innovation.

In this White Paper, we explore some of the ideas behind building and sustaining innovation in SMEs, medium and larger organizations. We first take a look at a litmus test that can be applied to provide an initial judgment about the state of innovativeness. This can get a bit tedious but the reality is that there are no shortcuts to success!

If your organization is not interested in being innovative – and with due respect – the suggestion is to stop reading. This Paper is meant for those who want to be innovative.

Why the picture[1]? It is one thing to have the CEO and/or the Board thinking about innovation, but it is quite a different matter to make sure that the desire to be innovative infuses a culture, a common vision, held broadly within the entire organization. Birds looking in all directions illustrates what might be the case in some companies. Companies such as GE, 3M, and John Deere, do not have to worry so much about this as they have decades of tradition on their side. It is common knowledge that innovation is part of their shtick. Other companies may not be so fortunate.

[1] Lori Skinner – A Bird in the Hand – www.abith.ca. A selection of carvings for outdoors by a Canadian artist.

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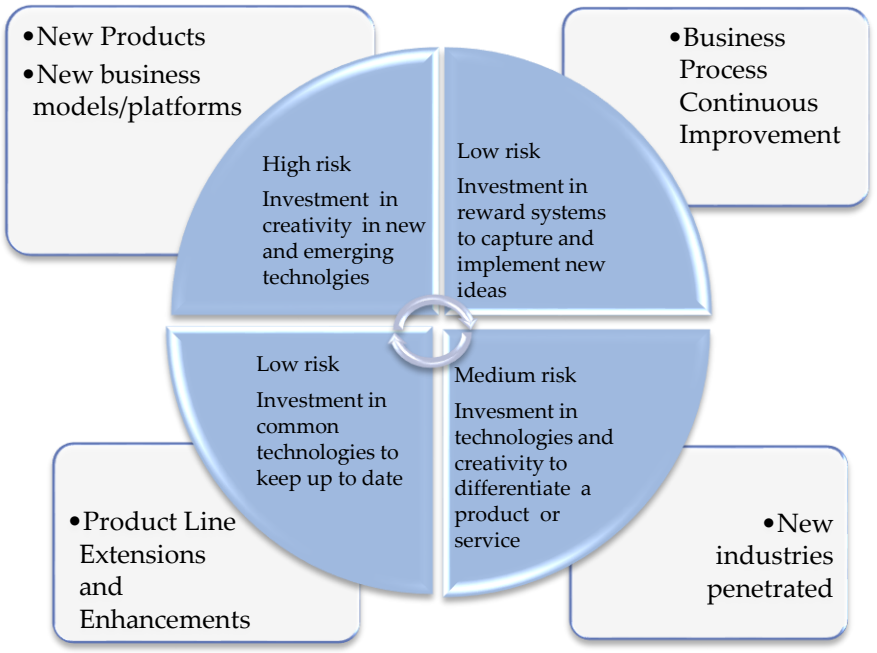
Innovation Outcomes

Litmus tests for innovation

Is there really a problem with innovation? If there is, what is the problem? How can the problem be described? Are there short-term fixes? Or long term? Or both?

Innovation, as the term is used in this paper, includes the full range of ideas which percolate within a company and need to find a way to surface and be implemented. Ideas and change come with risk. The four quadrants as shown in the chart suggest a range of low to high risk investments and the focus of their hoped-for outcome. Investment in this case, while usually thought about in monetary terms only, includes the allocation of all resources: time, thought and even emotional energy.

What is the state of innovation in your organization? If the following events are happening in your organization, you probably should take steps to address the problem. The 'litmus tests'.



- Innovators, people with good ideas big or small, are leaving the company to find a better environment for what they would view as their good ideas.
- Hiring people is becoming more difficult especially in the engineering, technology, and science fields.
- The ratio of new products to total products offered is on the decline – the NPVI (New product vitality, as it is referred to at 3M)
- Career opportunities for innovators seem capped; bright people – those with good ideas – do not seem to advance in the company. Complaints about 'no opportunities to develop' are often heard.
- There is a sense that the company is not as creative as it used to be, or as it should be.
- Seemingly great ideas never move forward and are aborted before commercialization takes place.
- There is pressure to shrink spending on research and development since, as the argument goes, 'they' have not come up with a good – meaning money making - idea in years.
- Costs of production are escalating faster than normal and faster than the competition.

Most of the companies which we have researched desire to be the leader in their chosen field. Only one company which we have researched, Massey-Ferguson, chose deliberately to be a follower (of John Deere in particular) and that was successful for about 150 years until the company succumbed and its brand bought out. RIM (Research in Motion – now called Blackberry) is, as this paper is being written, attempting to recover its innovative mojo after leading the pack during the early introduction of a new generation of smart phones. RIM became less successful when it decided to stick with minor product and service adjustments, making great profits, a darling of the stock market, but eventually losing market share and experiencing a drastically reduced stock price.

No one would disagree with the idea that a corporation exists to maximize returns for its shareholders. Not every corporation chooses to be innovative and that is an acceptable strategy although fraught with potential problems over the longer term. Copying, or being by desire an imitator or follower, is an alternative to being innovative. No matter what the chosen strategy, if there is a desire to become more innovative, to increase the innovative capacity of the organization, the starting point is to 'know thyself'.

Knowing where to start

Problem solving starts with identifying the problem. What issues have been identified? Too often, one starts with a pre-ordained solution or the latest tool that has surfaced to solve all problems. The internet abounds with tools but tools need sharpening and customized for the purpose at hand.

To get to 'know thyself' we examine three elements; the 'must haves', the investment in the drivers of innovation and lastly the need to get a handle on what stakeholders think about your company's reputation for innovation.

Checking on the 'must-haves'. Based on our research into highly-innovative companies, we have identified a number of characteristics, many often overlooked, which set the foundation for making improvements to innovation management. It is a checklist of what we call the 'must-haves', those characteristics which either are in place or should be built in order to get on with improving innovation management. Examples from our research are noted.

Leadership

- The Board and CEO maintain, over time, a balance between achieving **both the short and long-term objectives.**
- Having a **CEO, with active support from the Board, who aims for the company to be the best in class** [Best of Breed].
- A CEO and Board which **explicitly call for innovation** as a necessary key contributor to corporate success.

3M's long-standing culture for innovation

- A **strategy** which assumes carefully considered risks in growth markets and industries. A strategy which invests **in new products/services** and less so in 'legacy' products.

- Having a **deep understanding and appreciation of the organization's culture;** i.e. recognizing the importance of the culture of the organization and its potential subtle impact on decision making.

- A healthy regard to the **impact of culture on acquisition practices** – making *culture* part of the criteria when considering a potential acquisition.

Starbucks with its controlled innovation

- While **organic growth is the first choice for achieving growth and profit, embracing** acquisitions which are essential to technology or market growth are on the table at all times.

- Ensuring that **industry knowledge and its complexity are well understood by a percentage of the Board of directors**. The term 'adaptive Board[2]' is relevant i.e. having an active, involved and knowledgeable Board of Directors. Suitable **succession planning** in place in order to avoid the need to hire from outside for the key CEO position. This is a Board responsibility, but often overly influenced by the CEO.

HP's hiring of an outsider.

- **Continuity and longevity** of senior management; promoting from within and ensuring there is time for CEO and senior management to make progress.

- Avoiding a sense of **arrogance** which can often arise from too much success – but badly handled. Hubris!

Nortel's last years.

Organization and management of day-to-day affairs.

John Deere's adoption of SVA

- **Having a strong financial management system.** This provides stakeholders with a sense that the company's financial house is in order and that investment decisions meet specific well understood criteria.

- An approach **to providing non-monetary and monetary group-oriented rewards** which focusses on collaboration as well as rewards for achieving outstanding success and for meeting agreed-upon goals.

- Instituting **a system of managing human resources** which aligns individuals with corporate goals and leads to measuring individual and group performance which is supported by a fully transparent approach to recognizing rewards. Having well-articulated and understood **performance measures** for people.

[2] See Nortel report. An Overview of the Demise of Nortel Networks and Key Lessons Learned. Telfer School of Management, 2014.

- A focus on **regular and repetitive communication of corporate policies and management practices**, as well as appointments and matters impacting individuals and groups within the organization. Making people constantly aware of new developments. Emphasizing the importance of **intra-company communications**, both down and up.

- A company which values **broadly-based input into decision making but without slowing down the speed of decision making**.

- Cohesion **and a commonly-held vision of the future** is facilitated by meetings/gatherings of senior managers at key points in the development of the company.

GE's use of Crotonville.

- **Centralized financial management but maximum decentralization** for SBUs and other functions and activities of the organization.

Idea generation and realization

- A consistency in the **company's spending and approach to spending on research and development.** Maintaining, year after year, **a significant investment and interest in those activities which drive new ideas** and successful commercialization.

Deere's customers are defined as both dealers and workers of the land

- **Maintaining a concerted watch on developments at the customer level;** overall end-user demographic and economic shifts which eventually impact product/service demand.

RIM ignored Apple's growth.

- **Keeping an eye on the competition by c**ontinually **monitoring competitor developments** globally.

- **Having a tolerance for risk and failure** both in the planning process and in the execution of plans. Making failure a part of a learning process.

- At ease with **adopting ideas from outside the organization** through acquisitions or through mid-career hires.

P&G's 'Connect and develop'.

- Having **a reputation for producing reliable products or services** and thereby imbedding trust with all stakeholders but particularly with customers. Delivering what a company says it will deliver to customers **builds a sense of trust between company and customer**.

A check list of these 'must haves' is provided in Appendix A.

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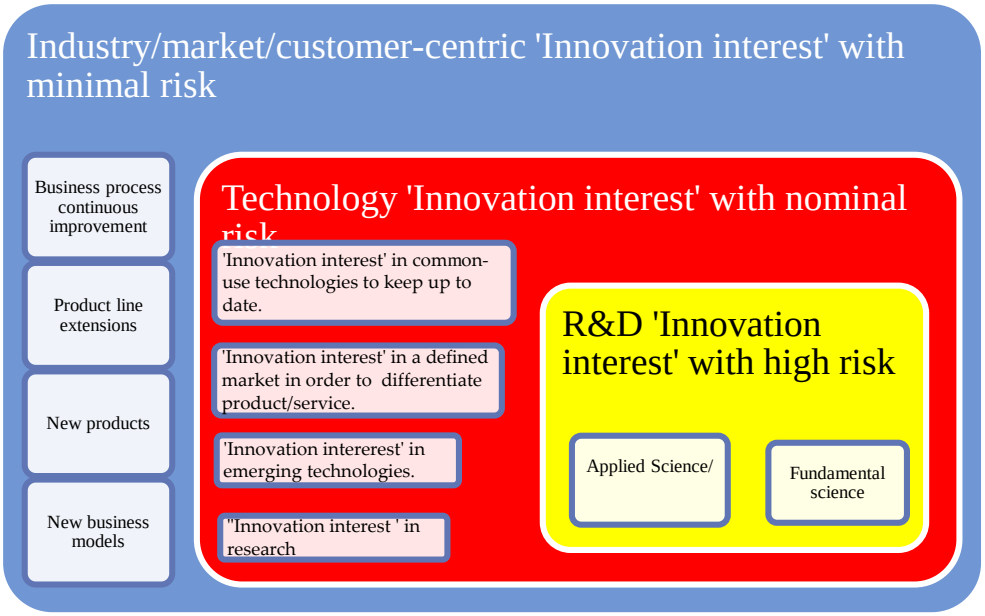
Checking for investment in innovation drivers. Innovation takes many forms. Not every company has all forms of innovation going at the same time, nor would it be wise to do so but it is important to know which ‘cylinders’ are firing, which are not, and where strategic decisions have been made to engage or not to engage - not apply the spark.



The chart opposite illustrates two aspects of innovation.

1. Helps to define innovation for purposes of this paper.

2. Can lead to an easily understood portrayal of which ‘cylinders’ the company has engaged and those which are not part of the company’s innovation program.

Continuous improvement is the most common form of innovation and has been for years. At the other extreme is the notion of investing in fundamental science; not something usually found in the corporate world but is most often associated with the activities of research institutions. One is not being judgmental at this point as to what is happening in the organization, but rather it is an attempt to provide evidence of activity and in addition the provision of a base line for future measurement, in this case, of the innovative drivers that are actively engaged.

Appendix B provides a list of drivers and makes use of innovation initiatives at Starbucks, organized according to this template.

Getting to know what stakeholders think about your innovativeness. Building a consensus within the organization on what the current situation is with regard to innovation is another step in discovering and portraying the current situation. It is vitally important to have a consensus moving forward and the early recognition of the viewpoints of stakeholders, particularly employees, is critical. Customers and supply-chain participants could well have additional comments to make.

Often simple questionnaires can be used to gain feedback from stakeholders, but other approaches such as focus groups, independent research groups, and basically any and all means reasonable should be deployed to gather this information.

What does one want to know about stakeholders’ views on innovation? As a CEO or the Board, there is a danger that one’s view is distorted. Customers and supply chain participants’ views are a much more objective source of information. Is your company viewed as being innovative? Is it viewed as being up to

date? Normal customer feedback should suffice but often is from scattered sources, anecdotal and certainly screened as the information moves into reports. Broader-based surveys are more likely to produce results that are truly objective and able to bring substance to non-objective opinions.

As we have found from our research, there are particular policies and management practices which contribute to, or in their omission, detract from a company's innovative capacity. Some practices are more important than others, some may be irrelevant, and taken one at a time, are ineffective. It is the combination or a clutch of practices that create and sustain innovation.

Consider the ingredients that go into having an organization which desires to have ideas being brought forward, reviewed, and eventually commercialized. Employees need to know, to feel, that should they have a god idea, that it will be listened to, treated with respect, and should it not proceed, there is no loss of internal reputation or truncation of one's career. Such a climate is impacted by the state of the corporation's financial performance. In dire economic times, most would agree there are priorities other than the nurturing of individual ideas. The challenge for the moment is to survive. In better economic times however, the climate can change, providing management makes it clear that there is room for new ideas. Tolerance for failure is a mark of highly-innovative companies. In some cases, a failure rate can be adopted as an objective.

If there was any single policy or practice which impacts innovativeness, it is the issue surrounding the role that leadership – specifically the CEO and the Board – plays in creating a need for innovation. Those companies which we have researched, the innovative ones, have experienced generations of senior management who adopt the policies and practices of predecessors which provide a continuity of interest in innovation. The details may change but the notion is clear, innovation, change is what we do and come to expect. Leadership demonstrates its interest in leadership by making sure that the company is more opportunity focused than it is driving to cut costs, and willing to assume a carefully considered risk in making investment decisions.

It is often said that the devil is in the details and this applies equally well to managing innovation. The overarching interest in innovation by senior management has to be demonstrated each day. How to exhibit encourage innovation? Innovation means moving ahead with new ideas and that infers that, at least in larger organizations, there is an element of urgency in decision making, that decisions can be made without undue bureaucracy interfering with the process. Typically, this means decentralizing to the greatest extent possible through organizing autonomous work groups or project groups and establishing SBUs. Communication becomes ultra-critical to the building and maintenance of a climate for innovation.

Appendix C sets out a questionnaire about policies and management practices which impact innovation.

Three ingredients for successful innovation

If the company has a tradition of innovation, probably infused by the founders, then the challenge is to sustain the tradition. If the company has not had a tradition of innovation, the challenge is to create a culture which fosters good ideas and makes things happen.

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The starting point for any progress to take place has to be at the top, specifically with senior management and the board. There are three ingredients for success.

1. **A culture** in the organization which values innovativeness and where the corporation is driven to be an outstanding competitor in their chosen field of endeavor. Companies which start off with a founder(s) who are guided by this desire have a head-start over those coming late to the idea of being innovative. 3M, GE, and, of course Apple, for example, began with this culture of innovation. Massey-Ferguson did not. RIM (Research in Motion) was pulled off track mid-way.

2. **A strategic direction** which guides the organization to the opportunities as they develop within their current-customer or potential-customer community. Strategy and the culture need to go hand in hand. Simply relying on a culture for innovation is a recipe for disaster. It is, however, often easier to modify the strategy of a company than it is to restructure its culture for innovation.

3. **A means of measuring** the progress of innovation within the organization. Whereas innovation can be viewed by some as a black art, i.e. that the surfacing of ideas is willy-nilly and subject to a lot of luck, more recent examinations of how corporations sustain or develop their innovativeness are revealing a more systematic management process. Software can be a big enabler of this third element; even for smaller organizations.

> A recent study by Booz and Company[3]confirms that this latter element is now an important aspect of innovation.
> *" Few companies succeed at innovation without ensuring that adequate processes are in place to generate new ideas, and that those processes are followed in a disciplined fashion".*

In summary, being good at innovation results from making wise choices from a complex of policies and management practices, developing a great strategy and having a disciplined approach to making it all happen.

[3] The Global Innovation 1000: Making Ideas Work

Measuring the progress of innovation

Putting a base line in place

Whether one trying to build or sustain innovation, a key is to have some means of measuring progress towards the goals for innovation that have been set. Only through knowing how the company is progressing an innovation be sustained. In this section we explore some of the means of measuring the progress on innovation and innovation management.

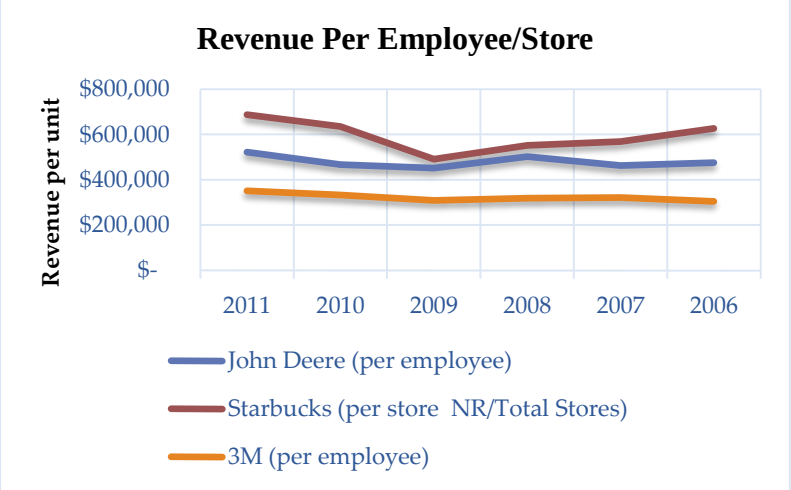
Why worry about metrics of innovation? Phil McKinney[4] perhaps summed up the situation when he stated:

If you set the right metrics, then you're going to have people doing the right actions. Consistency in producing and measuring the innovation metrics will eventually take hold. It eventually will become part of the corporate culture, but you can't give up. Because people work to metrics.

In other words, metrics play to and impact the culture in the organization. Decisions concerning metrics work to impact the culture for innovation but gaining the culture takes time and a discipline. Losing an innovative culture takes much less time.

Choosing the right metrics is key to measuring innovativeness. Anyone who has gone through an individual performance review, or business unit review, knows full well the importance of metrics – whatever they may be. Metrics determine your perceived performance within the organization, the chances of being promoted and extends quickly to the determination of compensation. At the CEO level, especially in these days of short-term thinking, the focus is on share appreciation and growth. Metrics matter at all levels.

Every measurement of innovative output will have its detractions, but as long as the business model remains the same from year to year, even the simplest of measurements can provide a degree of insight into the effectiveness of innovative initiatives.
Take for example; revenue per employee or per asset unit.



By adding revenue to an existing asset such as, in these three cases, John Deere, Starbucks and 3M, there is an indication that innovation overall is contributing to growth and profitability. Apple with its model emphasizing outsourcing much of its supply chain has a whole different level of performance per employee – currently at the rate of over $2,000,000 per employee having risen from close to $1.5 million three years ago.

[4] Phil McKinney.com

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Its relatively easy to measure the innovativeness of some companies but as companies grow and become more complex, the task is made much more difficult. Other measures are used, at least at the overall corporate level. No doubt simpler measures can be used in distinct divisions, business units or for individuals, but such information is seldom reported publically.

3M, a company which we have researched[5] at some length and which has, since its inception, emphasized the importance of innovation and gets more complicated to analyze with simple metrics at the corporate level. The complexity has not stopped 3M from emphasizing what it believes are measures of its commitment to the outcomes of innovation.

- Thus 3M emphasizes its innovativeness in terms of; patents awarded, technology platforms of which there are 46 globally, researchers employed (2,673 in the 2011 report).

- The company currently publishes a report on its 'culture of innovation' replacing an earlier document entitled 'A Century of Innovation which was discontinued during McNerney's watch.

- 3M reports its awards for everything from science initiatives to business awards. For example;

  3M earned a top spot on Booz & Company's list of most innovative companies for the third consecutive year, ranking No. 3 behind Apple and Google. Booz & Company, a global management consulting firm, surveyed nearly 700 innovation leaders from companies worldwide to determine which companies those leaders see as the most innovative companies in the world, in 2011.

- *3M was named among the top 50 of "The World's Most Attractive Employers" in a survey conducted by research firm Universum. More than 160,000 undergraduate business and engineering students worldwide participated in the survey in 2010.*

- *3M has been selected for inclusion in the 2008/09 Dow Jones Sustainability Index that tracks the performance of sustainability-driven companies worldwide. 3M has been included in the index every year since its inception in 1999*

3M chooses to report on these rewards and recognitions as evidence of its inherent innovativeness and, by implication, its sustainability.

Phil McKinney provides a full expose of 3M's use of metrics around research and development spending and its relationship to gross margin.

This is what I call the "3M Metric". 3M is famous for pushing their executives to embrace the new by putting in place a metric that reinforces the need to constantly re-invent itself. So what constitutes a new product? Rather that describe what it is, it's easier for me to describe what it isn't. It's not the next generation of an existing product (the next year's model of a car or laptop doesn't qualify) or a line extension (a new flavor of soft drink doesn't qualify).

[5] See Profile of 3M at http://www.corporateinnovationonlilne.com

It is hardly useful to repeat here what McKinney has already set out; except for one key metric; "**% of** revenue from products launched in the last XX years"; a very common measurement of innovativeness[6].

Picking the right metrics can be made easier by closely analyzing their use by the competition. Find a comparable company and use their choice of metrics as your starting point. In our experience such a comparison is one of the best ways of introducing almost any kind of change; i.e. by recognizing a potential threat from the competition. The Olympic skier Jean-Claude Killy said it best, "The best and fastest way to learn a sport is to watch and imitate a champion."

John Deere emphasizes its expanded product range and performance enhancements to its engines as well as rewards received from external sources.

John Deere received a number of medals presented at Europe's largest farm equipment show, eight awards from a leading U.S. agricultural-engineering group and a gold medal earned at an international competition in France. The recognized technologies pertain to advanced steering, tractor implement automation and crop harvesting logistics, among other areas. In addition, the John Deere 7280R was named tractor of the year by European farm-magazine editors.

Both John Deere and 3M make extensive use of external sources for recognizing innovativeness, at the corporate level. The complexity of their organization did not deter either of these companies from communicating the importance of innovation. Rewards are consistent with their internal reward philosophy; i.e. using non-monetary rewards is at least as significant a recognition as monetary.

Starbucks measures its innovation in a variety of ways; same store sales growth, new store openings globally, operating margin (implicitly referencing cost reductions per unit), new product offerings, specifically transitioning the packaged coffee business in-house to a direct distribution model (a new business model for supply chain control), and providing a light roast coffee (product enhancement), Starbucks Card Apps (new service).

Other measures which could be deployed require surveys or extensive analysis. There are a variety of ways of measuring innovativeness at least as seen by stakeholders, customers and even employees. Here are a few means of measuring; some better than others.

- Surveys that provide customers opinion of your company's innovativeness and its brand image – as compared to the competition.
- Financial analyst rankings and feedback from investor relations broadcasts to the media.
- Stakeholders' (in this case suppliers, investors, etc.) opinions on the 'innovativeness' of your company compared with their opinion of the competition.
- New sales to new customers - marks the rate of new customer acquisition reflecting the efforts to enhance the brand.
- Measurements of incidence, or rate of increase, of attractive, internally generated investment opportunities (the size of the pipe line) which come under review by senior management and the Board.

[6] ibid

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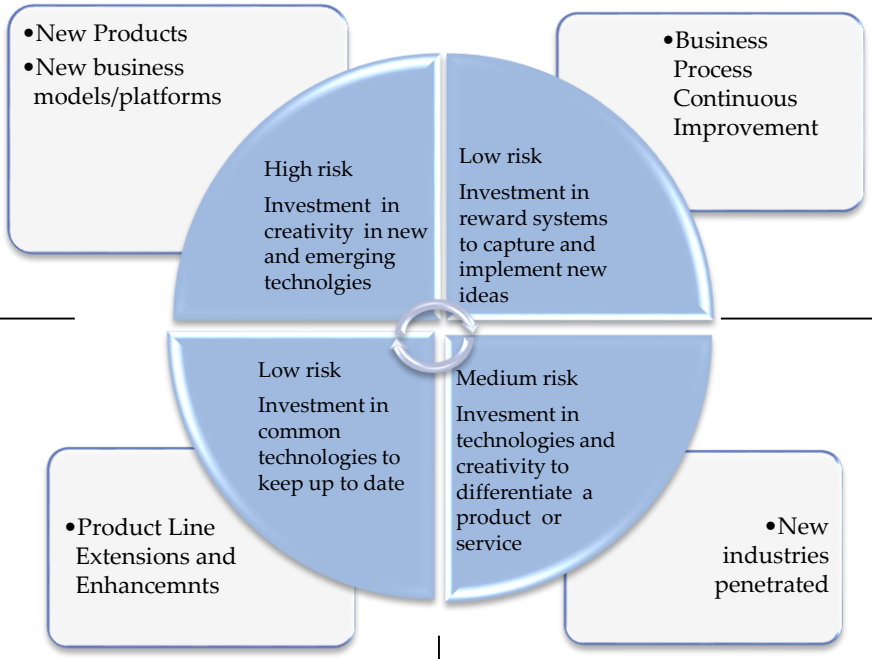
- Increase in the value of intellectual property generated from internally-sourced ideas; augmented by acquisitions of IP from other organizations. The information could be broken out by IP for existing versus new product initiatives.
- Share price premium attributed to the company's reputation for innovativeness.
- Conducting an analysis focused on employee retention and ease of attraction.
- Collaborations and partnerships reflecting the company's reputation for its innovativeness.
- The percentage-of- time key executives/Board members spend on innovation as a specific topic of a meeting, seminar or workshop.

The following chart provide measurements of innovation related to various types of investment.

- Patent applications
- Patents achieved
- Ability to hire SMETS personnel
- Number of 'breakthroughs'
- Rewards from external sources
- Publications in prestigious journals
- Licensing fees derived
- New products as a % of current offerings
- Dropping under- performing products

- Reduction in cost per unit
- New technologies adopted
- Service levels improved
- New customers added in existing markets
- Revenue per employee
- Revenue per units of production
- Measurable quality improvements



- Ideas generated and in the pipe-line
- Ideas generated and implemented
- New markets entered

- Number of collaboration linkages
- Stakeholder (employees, suppliers, customers) surveys
- Results of 'exit' interviews with innovators
- Risk profile at target level

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Appendix A; Check list of 'must haves'

	Check list of 'must haves'	Yes	No
Leadership			
	• The Board and CEO maintain, over time, a balance between achieving **both the short and long-term objectives.** • Having a **CEO, with active support from the Board, who aims for the company to be the best in class** [Best of Breed]. • A CEO and Board which **explicitly call for innovation** as a necessary key contributor to corporate success. • A **strategy** which assumes carefully considered risks in growth markets and industries. A strategy which invests **in new products/services** and less so in 'legacy' products. • Having a **deep understanding and appreciation of the organization's culture;** i.e. recognizing the importance of the culture of the organization and its potential subtle impact on decision making. A healthy regard to the **impact of culture on acquisition practices** – making *culture* a part of the criteria when considering a potential acquisition. • While **organic growth is the first choice for achieving growth and profit, embracing** acquisitions which are essential to technology or market growth. • Ensuring that **industry knowledge and its complexity are well understood by a percentage of the Board of directors**. The term 'adaptive Board[7]' is relevant i.e. having an active, involved and knowledgeable Board of Directors. Suitable **succession planning** in place in order to avoid the need to hire from outside for the key CEO position. This is a Board responsibility, but often overly influenced by the CEO. • **Continuity and longevity** of senior management; promoting from within and ensuring there is time for CEO and senior management to make progress. • Avoiding a sense of **arrogance** which can often arise from too much success – badly handled.		
Organization and management of day-to-day affairs			
	• **Having a strong financial management system.** This provides stakeholders with a sense that the company's financial house is in order and that investment decisions meet certain well understood criteria. • An approach **to providing non-monetary and monetary group-oriented rewards** which focusses on collaboration as well as rewards for achieving outstanding success and for meeting agreed-upon goals. • Instituting **a system of managing human resources** which aligns individuals with corporate goals and leads to measuring individual and group performance which is supported by a fully transparent approach to recognizing rewards. Having well-articulated and understood **performance measures** for people. • A focus on **regular and repetitive communication of corporate policies and management practices**, as well as appointments and matters impacting individuals and groups within the organization. Making people constantly aware of new developments. Emphasizing the importance of **intra-company communications**, both down and up. • A company which values **broadly-based input into decision making but without slowing down the speed of decision making**. • Cohesion **and a commonly-held vision of the future** is facilitated by meetings/gatherings of senior managers at key points in the development of the company. • **Centralized financial management but maximum decentralization** for SBUs and other functions and activities of the organization.		
Idea generation and realization			
	• A consistency in the **company's spending and approach to spending on research and development.** Maintaining, year after year, **a significant investment and interest in those activities which drive new ideas** and successful commercialization. • **Maintaining a concerted watch on developments at the customer level;** overall end-user demographic and economic shifts which eventually impact product/service demand. • **Keeping an eye on the competition by c**ontinually **monitoring competitor developments** globally. • **Having a tolerance for risk and failure** both in the planning process and in the execution of plans. Making failure a part of a learning process. • At ease with **adopting ideas from outside the organization** through acquisitions or through mid-career hires. • Having **a reputation for producing reliable products or services** and thereby imbedding trust with all stakeholders but particularly with customers. Delivering what a company says it will deliver to customers **builds a sense of trust between company and customer**.		

[7] See Nortel report. An Overview of the Demise of Nortel Networks and Key Lessons Learned. Telfer School of Management, 2014.

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Appendix B; Check list of drivers of innovation (Starbucks as an example)

	Check list of drivers of innovation - 'Innovation interest[8]'		Yes	No
	Low risk	Business process and continuous improvement		
		Product line extensions		
	Higher risk	New products		
		New business models		
	Low risk	Innovation interest in common use technologies – just to keep up to date		
		Innovation interest in a defined market to differentiate product/service		
	Higher risk	Innovation interest is emerging technologies		
		Innovation interest in research		
		R&D innovation interest		
		Applied science		
	Highest risk	Fundamental science		

	Starbuck's Innovation Profile [9]	
Type of Innovation	**Evidence of Innovation by Type**	**Comment**
Science		
Fundamental Science	None	Not expected in this industry
Applied Science	VIA development based on the chemistry of 'freeze-dried' technology/ Roast curve relationship	Unusual depth for this industry
Technology		
Research	R&D spending as a % of sales/ Intent to be the 'coffee authority': maintaining a watchful eye on developments/'Know how'	Coffee is in Starbucks DNA
Emerging technologies	?	Unclear
Differentiating technologies	Quality of product/ R&D to develop less expensive soluble powders [e.g. VIA]/ Sandwiches without a cheese smell/ Ethically-sourced coffee/ Merging coffee with a 'place'	Combination of 'technologies' provides the differentiation
Common-use technologies	Loyalty program/ Clover equipment/ Mastrena equipment to improve quality, speed, and view	Keeping up to date with technology
New business models	Store design/ Integrating coffee roasting with sales and with both bean and drink	Fundamental shifts in the industry
New products	Store design [seating, wi-fi, comfort/'Street-named' stores/ Coffee quality and price/ Pike Place Roast/ Frappucino/ Coffee – 'bold'/ Sandwiches/ Branding realization [e.g. Digital Ventures]/ VIA/ Renaming coffee to designate taste rather than bean	Probably the strongest Starbucks type of innovation
Product extensions	Store openings/ Coffee variations/ Sandwich selections/ Coffee but in out-of-store locations/ Limited release reserve coffees	This type of innovation has propelled growth
Business/continuous improvement	IT/ In-store information systems/ Mastrena = speed	Came as an afterthought after Starbucks decline

[8] Innovation interest picks up on the idea that even an 'interest' can consume time, effort, thought and can be a distraction before actual investment in terms of human resources, capital equipment takes place.

[9] Starbucks believes that innovation is in their DNA[9]. The company has introduced many innovations of all types over its history. Some innovations are more important than others. In an attempt to better understand the focus of Starbucks' innovation, this paper groups innovations under explicit topics. In so doing it is easier to identify areas of successful and not-so-successful innovation, as well as gaps in innovation performance.

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Appendix C; Questionnaire re policies and management practices[10]

Factor Description	Extreme left	Extreme right
1. Management's emphasis is on short-term versus long-term profit.	Emphasizes very short term	Emphasizes very long term
2. Management explicitly looks for or has no interest in innovation.	Explicit objectives for innovation.	Has no interest in innovation.
3. Management's tolerance for mavericks or not.	A lot of tolerance.	Very little tolerance
4. Planning emphasizes rationing resources or identifying opportunities.	Very much rations resources.	Focus is on identifying opportunities.
5. Management's tolerance for failure or not.	Very high tolerance for failure.	Very low tolerance for failure.
6. Leaders emphasize management of people and their interactions or not.	Little emphasis on people.	Very much emphasize people management.
7. Corporation provides career ladders, powers and titles for innovators or not.	Innovators have limited career opportunities.	Innovators have careers and recognition.
8. Corporation is tolerant towards variances from the corporate norm or not.	Corporation highly tolerates differences.	Corporation has little tolerance for differences.
9. Management's tolerance for uncertainty (as distinct from risk) in the planning process or not.	Plans have a very low tolerance for risk.	Plans have a very high tolerance for risk.
10. Style of communication within the organization.	Communication is highly informal.	Communication is highly formal.
11. Management's discourages or encourages use of independent work groups for special purposes.	Use of independent work groups is greatly encouraged.	Use of independent work groups is greatly discouraged.
12. Management makes decisions with lots of input from the rest of the corporation or not.	Little consultation.	Lots of input is sought.
13. Decision process is elaborate and formal versus short and informal.	Process is short and informal.	Process is elaborate and formal.
14. The corporation has specific mechanisms available for rewarding innovation or not.	Mechanisms exist for rewarding innovation.	No mechanisms for rewarding innovation.
15. The organization is planning-oriented versus action-oriented.	Organization is prone to planning and analysis.	Organization is prone to action with little planning.
16. Management has an open and relaxed attitude towards mergers, acquisitions, joint ventures and divestitures or not.	Very open attitude to mergers and acquisitions.	Very closed attitude to mergers and acquisitions.
17. Management expects people to be totally devoted to the corporation or makes room for personal development.	Insists all time and effort are devoted to corporate objectives.	Really encourages personal development.
18. The organization has a decentralized or centralized hierarchy.	Highly decentralized hierarchy.	Highly centralized hierarchy.
19. Resources (budget, personnel, time, etc.) are generally available for new ventures or not.	Few resources are ever available.	Resources are generally available.
20. Extent of staff involvement (as opposed to line involvement) in the decision process.	Little staff involvement in decisions.	Lots of staff involvement in decisions.
21. Innovators tend to stay with the organization or leave.	Innovators stay with the corporation.	Innovators leave the corporation.
22. The organization has or has not an innovative tradition.	Corporation has not tradition of innovation.	Corporation has a fine reputation for innovation.
23. The R&D budget is less or more than the competition.	R&D spending is much less than the competition's.	R&D spending greatly exceeds competition's spending.
24. Innovation is perceived as decreasing or increasing.	Innovation is decreasing rapidly.	Innovation is increasing rapidly.
25. Employee organizations discourage or encourage innovation.	Organizations encourage innovation.	Organizations discourage innovation.

[10] This questionnaire is drawn from the on-line survey at http://www.corporateinnovationonline.com . The survey provides a means of testing our opinion against other respondents and profiling your own organizations issues of greatest concern. You also receive a 'score'.