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Innovation management best practices

Innovation and stock price performance
Longevity is the answer!

Date prepared; December 3, 2013

In this White Paper we examine the long-term stock performance of several of the companies which we have profiled; GE, Starbucks, Toyota, John Deere, Blackberry (RIM), 3M and P&G.

Innovation management and equity share price performance[1]. Aligned or not? Yes and no!

Contents

We have also examined the policies and management practices of BP, DSM, HP, Massey-Ferguson and Nucor and, while not specifically covered in this paper, all but Massey-Ferguson are still in business and doing well - mostly!

Highly-innovative companies sustain themselves through innovation, but there is little short-term correlation between innovation best practices and share price.

Highly-Innovative companies have a culture that is latent, lasts, and its existence leads to an ability to rejuvenate the organization. Founders, however, most often set the tone.

Companies which aggressively foster policies and management practices survive and do well. Those that don't, at least from this small sample, either fail – MF – or enter into troubled times – BBRY.

Background

Since starting CIOnline[1], we have closely followed innovativeness within seven companies. Almost coincidently we have tracked each company's stock price, more out of curiosity than research interest, since our primary interest was in identifying management practices related to innovation within these well-recognized companies.

We posed the question as to why these seven companies had been so successful – the companies having been judged to be innovative by any number of corporate surveys, anecdotal evidence as well as their longevity – not necessarily related to their stock nor financial performance. Some may regard that as an oversight but we are interested in understanding their management practices which support innovation and the reason for their building and sustaining a reputation for innovativeness. We did not focus on strategy and human talent. Obviously people and strategy are extremely important to the outcome of innovation. So what about the stock price for each of these seven companies we have reviewed for this White Paper?

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[1] http://www.corporateinnovationonline.com

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Is there any correlation between being innovative, having supportive management practices and having a reputation for innovativeness and stock price? Does innovativeness lead to outstanding stock appreciation? Is there any evidence to suggest that by realizing that a company is innovative, or could become innovative, there could be an opportunity to invest in the stock?

We looked at each of the following companies and, based on our in-depth research (CIOMAX reports) and an understanding of their management practices which support innovation, attempt to ascertain any correlation between stock price and innovativeness.

- Starbucks; SBU
- GE; GE
- 3M; MMM
- Toyota; TM
- John Deere; DE
- P&G; PG
- Blackberry; BBRY

We also examined several other companies but found that while they were interesting cases related to innovation, they either did not merit a full Profile[2] or there was insufficient information to complete a full profile. For the record, these other companies were;

- **HP**: which stock has done well this year (2013) but is still struggling with the result of past damage inflicted by prior senior level decision making.
- **Massey-Ferguson**; after a 150 years of copying others' designs, finally went bankrupt – but was once Canada's largest corporation.
- **Orgne** (Ontario Air Ambulance Service renamed); very interesting initial set of management practices but fell apart on leadership and related issues.
- **Apple**; as compared to **RIM (now Blackberry)**: comparing in this case the management practices of Apple under Jobs with RIM under Lazaridis and Balsillie. The contrast was remarkably clear.
- **Nucor**; references the golden days of the mini-mill initiatives and Ken Iverson's shake up of the steel industries highly bureaucratic management practices.
- **DSM**; the Netherlands-based company that has a long history of reinventing itself – we looked at their use of enabling mechanisms they have chosen to facilitate these transformations.
- **BP**; on the occasion of Hayward's departure and Dudley's assumption of the reigns – Hayward, we believe, had initiated a range of very interesting innovative ideas but was cut short mid-career.

Each of the above companies has an innovation story to tell but our ability to complete a Profile was limited and therefore a more narrowly based review was undertaken.

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[2] Profile refers to the in-depth examination of each company using a 25-Factor analysis of management practices which either support of distract from innovation and innovativeness. See;

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Our paper uses the DOW as a measure of relative stock performance. Two time periods are selected; the most recent 5-year period and, where information is available, since the company listed itself on the NYSE or TSX. Why 5 years? Only because that covers the recent recession period – the companies had to get through this trough – and it coincides with the time of our earliest reviews. The DOW as of January 1, 2009, was close to 8500 but still was to fall another 2,000 points before building to its current level (late 2013) of close to 15,600.

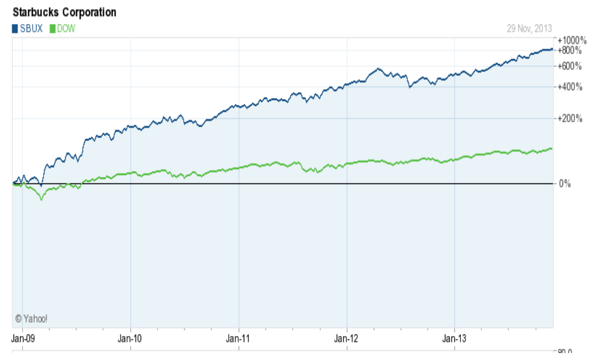
A quick overview of the seven companies

Company	First review and W&P publication of a Profile	Leadership over the 5-year period?	Stock Price - January 1, 2009	Current price – November 30, 2013	Multiple since January 1, 2009	Beta[3]
GE	June, 2009	Immelt	15	26	1.73x	1.28
Starbucks	May, 2011	Schultz took back Starbucks 2008	10	82	8.2x	.75
3M	April, 2008	McNerney, Buckley and now Inge Thulin	42	133	3.16x	1.12
John Deere	March, 2008	Lane was in charge when we did our first review	43	84	1.95x	1.32
P&G	November, 2008	Lafley was CEO in 2008 but, on retirement in 2010, was replaced by MacDonald. Lafley is back in charge.	62	84	1.35x	0.38
Toyota	March, 2010		66	125	1.89x	.69
Blackberry	June, 2011	Founders out and new management in place now for the 3rd round.	40	6		.72
DOW			6547	15680	2.4x	

[3] Beta; A measure of the volatility, or systematic risk, of a security or a portfolio in comparison to the market as a whole. Beta is used in the capital asset pricing model (CAPM), a model that calculates the expected return of an asset based on its beta and expected market returns. Beta is calculated using regression analysis, and you can think of beta as the tendency of a security's respond to swings in the market. A beta of 1 indicates that the security's price will move with the market. A beta of less than 1 means that the security will be less volatile than the market. A beta of greater than 1 indicates that the security's price will be more volatile than the market. Most high-tech Nasdaq-based stocks have a beta greater than 1, offering the possibility of a higher rate of return, but also posing more risk. Courtesy; investopedia.

Share price performance for each company

Starbucks[4] – SBU

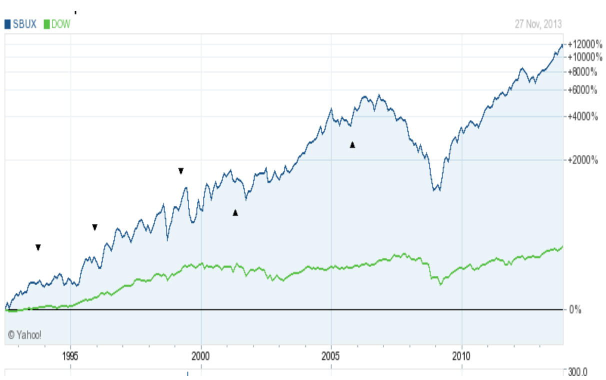


Starbucks has been the outstanding performer over the past 5 years, the period which we cover in our examination of the role of R&D within their organization and a review of the many actions taken by Schultz to recover the company after retaking the CEO role in 2008.

Starbucks has outpaced the DOW dramatically in the period beginning in January, 2009. Not only that, SBU has, since the company first went public has done better than the DOW.

Schultz must obviously be given credit for the whole period since, with the exception of his well-documented sort-of absence[5] from Strarbucks prior to 2008, he was and is the man in charge.

Starbucks is our example of 'controlled innovation'[6] – or a situation where the CEO is very close to the organization and, since the business model is so well known, one might say 'highly tailored', it can be experimented with and adjusted on a highly organized basis. Mistakes, if made, can be corrected since their impact is quickly apparent; such as their issues with food quality.



Starbucks does a lot of testing of new prodct and service ideas directly in the market place. If it works, they know about it quickly. Now referred to 'green lighting', Starbucks was one of the first to make use of this technique.

More complexity, such as movements into tea, food, and selling the brand, erode the ability for the organization to follow a highly-controlled – centrally controlled – business model. Moving outside the coffee envelope introduces new challenges to the organization. Succession is a looming issue. Perhaps the recent appointment of a new head of stragegy who evidently has strong analytical approach to business is a step towards being able to control and experiment in the more complex and diversified market that is developing. Knowing 'coffee' has been the key to Starbucks ability to innovate. The future may be more about knowing 'branding'.

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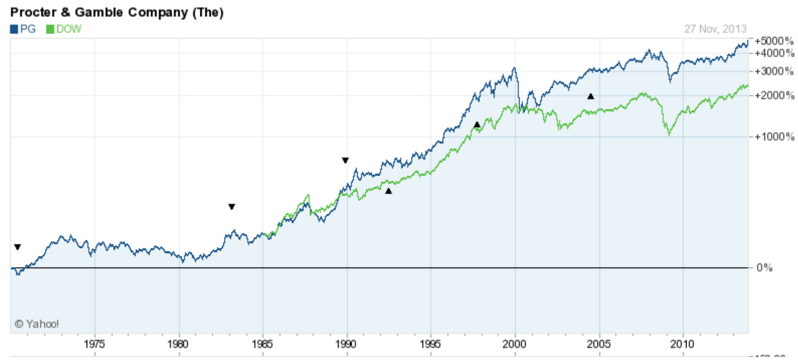
[5] Schultz kept an office in the same building as his replacement over this whole period
[6] See White Paper on 'Starbucks Controlled Innovation'

Procter and Gamble – PG



Procter and Gambles stock performance has been less exciting than Starbucks by a considerable margin. This is a much more difficult business model to manage. Touted as one of America's, if not the world's, outstanding companies, it has a long history of innovation but the stock price has not lived up to its reputation. Better performance over the long term than the DOW for sure, but as an archtypical example of America's innovativeness, and studied at length by business schools, there is something missing. Do companies become too big too manage? Or, is it possible to over manage innovation?

Over the last five years PG has done less well than the DOW. Clearly the company is struggling as evidenced by the return of Lafley to the helm. The issue of leadership is critical. Lafley was a breath of fresh air when he originally assumed the leadership[7]. He noted in his first book[8] how he had to change the culture of the organization. This was one of the first public admissions that PG was in need of change. Lafley went at great lengths to introduce any manner of organizational and management practice changes to the organization with a view to improving its innovativeness; even quantifying goals for failure so that risk taking would be encouraged by otherwise risk-averse executives within the organization.

Our view, as set out in the Profile prepared at the time, was that Lafley had almost reinvented innovation management in P&G.

> "*One can quibble about whether the new emphasis on innovation is incremental or more significant but our opinion is that* ***the changes*** *are more than just same-old innovation and indeed* ***are a major step function in the company's history****. To use the company's own definitions, the innovation*

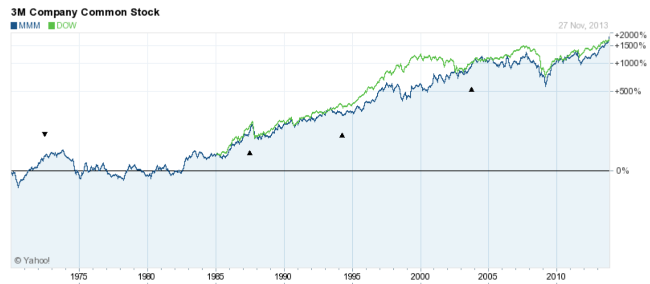
[7] For a full review of P&G, see Profiles.
[8] The Game Changer The Game-Changer, How You Can Drive Revenue and Profit Growth with Innovation, published by Crown Business, by A.G. Lafley and Ram Charan.

*practices introduced over the last 8 years (up to 2008) are 'disruptive' more than they are 'incremental'.***"**

Here is another example where, even with the best management practices encouraging and supporting innovation, the stock price has not responded positively. More recently one has access to even more information management smarts[9] in use at P&G. P&G has been an innovator of best practices in innovation management but the impact on share price has been mute – to say the least. What might have happened without Lafley's innovation initiatives? The jury is still out.

3M – MMM

3M is recognized as an icon of innovativeness. Our Profile of this organization, which was compelted when McNerney was in charge, documents and codifies the full range of innovative practices going back to the time when they were first introduced by William L. McKnight who is given most of the credit for forging an innovative culture during his long tenure at 3M.



3M was one of the 28 companies included in the original research by Arthur D Little Inc. and which resesarch is now used as the basis for our on-line survey which sets out 25 Factors influencing the climate – culture – for innovation. 3M passed with flying colours.

3M's own publication – A Century of Innovation – documents their innovation story and demonstrates the pride with which this mantra was held by all, or at least most of its people, for over a century.

Over the last 5 years, 3M has outpaced the DOW but not by much.

McNerney brought in Six Sigma, which was an unpopular move. Only latterly did Buckley comment[10] - "Using Six Sigma for innovation at 3M was a complete disaster. It almost killed the innovation culture". Our Profile commented that we were suspicious that this move would not contribute to 3M's innovativeness. Six Sigma seemed to be a hard tool when the culture of 3M was so well established and such a tool ran the risk of damaging the culture.

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9 Playing to Win, How Strategy Really Works. A.G. Lafley and Roger L. Martin, Harvard Business Review Press, 2013

10 http://www.15inno.com/2013/03/05/buckleyquotes/, Attributed to George Buckley apparently taken as notes at a 'Front End of Innovation' event in Copenhagen

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Buckley, only the second outsider appointed after McNerney, did much to restore the reputation of innovation at 3M. Inge Thulin, a career 3M'er, has followed up by acting to return 3M to its long-standing innovative culture.

3M continues to be a reference point for the best innovative practices – including the 15% rule which has become so well known. 3M is closely watched by all those interested in innovation practices. 3M's use of NPVI illustrates the company's commitment to innovation. What other company provides 'forward guidance' on innovation and its importance to growth?

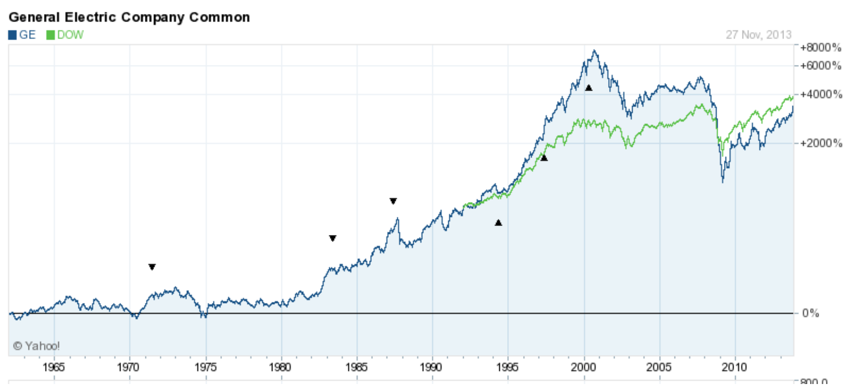
> *NPVI continues to be used by 3M as a measure of its innovativeness. The growth of the New Product Vitality Index registers the percentage of revenue the company generates from products that did not exist five years earlier. Thulin anticipates that this measure will reach 40 percent by 2017, driven by the additional spending on R&D.*

3M's management practices, parsed by using 25 Factors, is used as our standard of excellence – 'best of breed', available on-line.

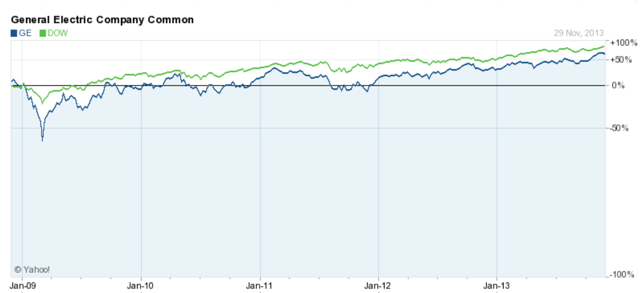
General Electric Company - GE

GE, over the long term, ends up a bit behind the DOW but has a period of stellar performance in the 90s and into the early 2000s. GE is often looked upon as a bell-weather of the U.S. economy.

Under Jack Welch up to 2001, GE had a wonderful ride in terms of its stock price. It was also the company to be with if one wanted good management experience. It was known as a great training ground and spawned a cadre of executives which now find themselves in senior roles in America's business.



Our Profile was completed in 2009[11] well after Jeff Immelt's assumption of the CEO role but, importantly, on the publication of his book[12]. The Profile documents the culture of GE from the time of Edison, the founder who set the tone for innovation. Those following Edison have maintained the culture. For some at GE it proved difficult for some managers to actually articulate the culture of GE. They knew what it wasn't but could not



[11] See under Profiles

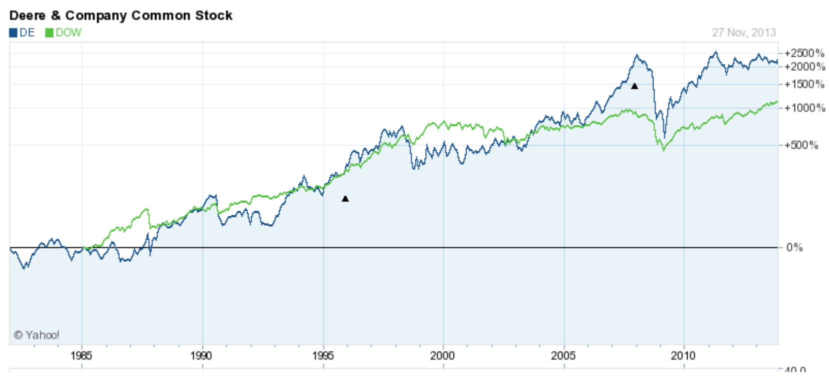
[12] The New GE Way, by David McGee

so clearly state what the culture was. Culture is often latent and tracks below the surface.

There is a suggestion that during Welch's time, the culture shifted its emphasis away from technology to finance. This is in the process of being redressed by Immelt. Over the most recent three decades,

For the past 5 years, GE has tracked the DOW but ends up a bit behind overall.

Deere & Company – DE



Deere's stock performance over the longer term exceeds the DOW by a fairly wide margin.

Deere has been a stalwart of innovation in an industry which many would view as not being, in itself, as innovative as other perhaps more exciting industries. As a comparison to Deere, we completed a review of Massey-Ferguson (MF), once a major global competitor to Deere. MF went bankrupt in the late 1990s, having earlier been Canada's largest corporation with over 68,000 employees. MF always looked to Deere to lead the way in innovation and was excellent at picking up ideas from others; including Deere. Copying paid off for 150 years but, in our opinion, was a major contributor to its eventual failure.

Our Profile of DE was prepared in 2008 when Robert W. Lane was CEO. Lane was clear about the importance of innovation to Deere.

> *'The need for a significant level of innovation and hence, differentiation has led us to develop a complementary process to BGP [a multi-phased framework called the Business Growth Process, or BGP, which is designed to help the entire enterprise achieve sustained, profitable growth from a mix of new innovative offerings, as well as enhancements to our existing products and services] which focuses on both speeding up and improving the quality of our innovation. The Accelerated Innovation Process, or AIP, is being implemented to help us conceive, evaluate, and propose ideas much more quickly. Then, as appropriate, we advance the ideas with higher potential, sideline merely good ideas for later consideration, and discard the ones that show less promise.'*

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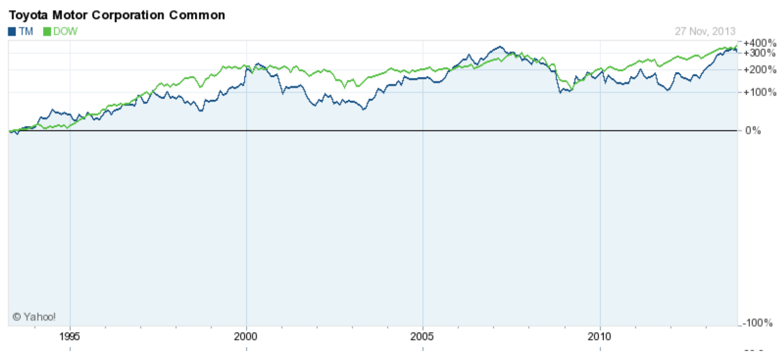
Lane's successors have continued to emphasize the importance of innovation. For the most recent 5-year period, DE's stock performance is better than the DOW and the company continues to emphasize innovation. DE's global launch is only just underway but the competition has heated up in this industry from companies in Japan and most recently from India.

Toyota - TM

Toyota's stock performance – on the NYSE - has been tumultuous and a reflection of the problems in auto industry in general.



Our Profile[13] was prepared on the occasion of Toyota's alleged (and now seemingly settled) acceleration problems and investigations by the U.S. government. The massive recall of 8.4 million vehicles was unprecedented in the auto industry.

While maintaining an enviable reputation as a highly-inventive and highly-innovative company, its reputation was under a cloud in terms of its handling of the recall in the U.S. and elsewhere.

There was no question that Toyota's reputation would recover from the recall and continue to be one of the more innovative companies in the industry.

Over the last 5 years, a recovery period for the whole automobile industry, TM has exceeded the DOW but only by a small margin; still significant given the troubles of other players – over the same period. Stock price increases in the last 18 months staved off a more negative assessment of its relative performance.

[13] Currently unavailable but soon to be updated and reissued

Blackberry (was RIM) - BBRY

In contrast to the other six highly-innovative companies noted in this paper, Blackberry represents both one of the best – when it was functioning well – and the worst – when 'things' fell apart.

Stock performance was outstanding until it wasn't. While very good management practices[14] were in place for the growth period, a risk averse culture took hold and allowed – indeed facilitated - the entry of Apple and Samsung into a market created and once dominated by this Canadian-based (Waterloo) company.

In contrast to the other six companies in this paper, the innovative culture, the climate, changed very quickly and with the ensuing market and financial performance came a drop in stock price, bad morale and the inevitable staff reductions.

One of the lessons learned is that an innovative culture which can give rise to great products/services can be quickly destroyed and probably, in this case, by leadership which was not sufficiently aware of the consequence of its actions or, in this case, of its inactions.

While it is unclear at this point as to whether the company will survive or not - the stock is highly depressed. The company is being restructured as this is written, employees are being let go and financing risk has increased.

[14] See Profile 'The Next Big Challenge' comprising 73 pages of research on this highly-interesting company whose future is yet undecided. You might also be interested in the comparison between Apple and RIM while Jobs at Apple and Lazaridis and Balsillie were in charge at RIM.

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Conclusions (and questions)

What is to be made of our review of these seven companies? All represent best policies and management practices when it comes to innovation but how does this relate to stock price performance?

Based on this small sample, it is clear that companies that aggressively foster a sense of innovation have a great probability of surviving over the long term. After all, these companies have kept close to the indexes, for some, the overall measure of financial efficiencies.

Conclusion (and questions)	Best illustration(s)
• The maintenance of a great climate or culture for innovation has a lasting benefit and can continually refresh itself even in large corporations.	3M, GE
• Leaders, flown in for cleaning up a highly-innovative company, must take time to understand the culture of their new organization – good or bad – and act accordingly.	3M
• One can lose an innovative culture very quickly if leadership becomes dysfunctional.	BBRY
• It’s not safe to conclude that the best management practices ends up with stellar stock performance. Other components; human capital, strategy, overall market conditions may have a more dominant impact.	P&G
• Is it possible to over organize and over manage innovation?	P&G
• In many companies, the promulgation of an innovative culture may take decades and can act as an immovable force with its own inertia – for better or worse. The important point is to recognize the existence of a culture for innovation and try to articulate its characteristics.	3M, GE
• Even in industries which are not usually seen to be hi-tech, innovation plays a significant role in their long-term performance.	DE
• Leadership at the CEO level is closely correlated with successful innovation.	All of the above
• Founders ‘values’ have a very significant impact on the attitude towards innovation in the company; an attitude which has a long-lasting legacy.	TM, GE, 3M