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Searching for why GE's financial performance has lagged over the last decade.

June 22, 2017

Overview

Why the comparison

Why is 3M's financial performance so much better than that of GE over the last ten years. CIO's sets out to understand the differences which, if identified, could point GE, under John Flannery, in the right direction for the next decade.

There is no question that Jeff Immelt has brought about profound structural changes to GE during his sixteen years at the helm. GE now seems well positioned to take advantage of these changes and by CIO's analysis, since GE incorporates many highly rated innovation management practices and an innovative culture, should be able to improve financial performance.

Flannery has promised a 'comprehensive review' of all business segments to be carried out "with speed, urgency and no constraints". Surprises may be in store!

In this analysis CIO chooses 3M as a comparison for several reasons; CIO has followed and researched, in depth, the story of 3M for the last ten years.

According to CIO, 3M is the company with the best set of management practices which encourage innovation, CIO has a measure – a rating – of, not all, but a significant number of Factors which make up the ratings for both organizations.

Summary

Appendix

In the first profile of GE, CIO foresaw the divestment of the financial services industry component. While this was an obvious move in order to move GE back to its roots, the shift came at a cost in terms of financial performance. GE, once the darling of the stock market and a bell weather of the U.S. economy, cannot today be regarded in the same light as in the past. With GE's direction into the digital economy, and new management, there be a brighter financial decade ahead!

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CIO's profiles of GE

Profiles have followed GE for the last 16 years

CIO published its most recent profile of GE[1] as of February 25, 2017, not because of any impending change at the top level, bur rather due to the extensive restructuring which had taken place. CIO's executive summary at the time noted;

- GE needs to reinvigorate its tradition of innovation.
- Recent restructurings place GE in a very desirable position to finally, after a decade of poor financial performance, realize significant value.
- Immelt's initiative to 'simplify' the way GE does business must include dramatic decentralization with accountability. Why? To become more entrepreneurial and speed up decision making.
- At the same time, GE, must tighten its financial management practices and perhaps learn from the practice of Deere & Co. and 3M, two companies which CIO has researched and which appear to do better at managing highly-diversified businesses than GE.

Our first report of August 2009, noted the beginnings of major restructurings, particularly the divestment of business segments which were not consistent with the culture of GE; namely the financial services and entertainment industries.

White & Partners (now CIO) started following GE in 2009 when Immelt's book[2] was published, and well after his assumption of the CEO role in 2001. Immelt's book provided a perspective on innovation during the last decade and insight into GE under Jack Welch, Immelt's predecessor. Management styles were different and so were the results.

GE was included in the original research, circa mid 1980s, which focussed on attempting to identify the innovation management practices which lead to success. The notion that one could identify and quantitively measure innovativeness led to the establishment of this web site. GE was chosen because of its fine reputation for innovation and its financial performance.

Today, and given its poor financial performance, GE would likely not be chosen to be part of research into the innovation management practices of highly-innovative, idea-intensive companies. On the other hand, GE continues to draw admiration for many of its management practices and its choices for management.

This paper tries to shed some light on the reasons why GE has not performed well over the last sixteen years of Immelt's term in spite of the dramatic changes which he has brought about.

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[1] CIO innovation management report, February 25, 2017 entitled; GE's recent 'Cialis' is the discovery of AI, digital data management and coding applied to newly-focused industrial segments. 'Pivoting' and 'simplicity' are in and so is clever coding. Visit the web site.

[2] The New GE Way, by David McGee

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Financial performance

Poor performance compared to its competitors and with 3M

GE shares have declined twenty-five percent over the last ten years in contrast to a fifty-nine percent rise in the S&P 500. 3M's shares, by contrast, have increased substantially.

GE's competitors such as Honeywell, Danaher and United Technologies have all gained relative to GE.

	Market cap*	Revenue	Revenue per employee
GE	245 billion	119.93 billion	$379,637
3M	127.49 billion	30.39 billion	$331,826

All[3] figures as of June 20, 2017

Three measurements are commonly used to assess managements' performance.

	Number of employees	Return on assets	Return on equity	Operating margin
GE	295,000	1.69%	11.31%	9.17%
3M	91,584	13.60%	44.76	23.73%

GE's financial performance has been lacklustre at best and part of the answer may lie in conglomerate model which is the structure of GE.

> Both Mr. Greenwald and Mr. Damodaran[4] said the Welch conglomerate model had been thoroughly repudiated, so much so that there is a widely recognized "conglomerate discount" applied by investors to the stock prices of companies consisting of businesses with no obvious synergies.

Immelt's strategy in returning GE to its roots was clearly directed at focussing on growing industrial sectors such as transportation, aviation and the energy sector but the size of the organization may well be a contributing factor.

There are, however, other Factors – innovation management practices – which have contributed to GE's poor financial performance and should not be discounted.

Is it a fact that acquisitions and divestitures, of which there have been many over the last sixteen years, not only cost dearly in terms of financial transaction costs but more importantly take the time of the most senior executives and the Board.

[3] Financial information as of June 20, 2017 and from Yahoo and BMO Investor line.
[4] Did the Jack Welch model sow seeds of G.E.'s decline? James B. Stewart, June 15, 2017

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Insight from an analysis of 3M versus GE

Some management practices are highly rated, others are not

CIO has rated, where possible, most of the Factors which have been found to impact a culture for innovation. The rating has been applied to both GE and to 3M.

Factors which are equal of close to equally rated are set out as well as those Factors where there are differences between the organizations. Data for several other important Factors is not available.

Factors where are differences between 3M's and GE's ratings could lead to potential improvements.

Similar results

Seven out of twenty-five Factors[5], i.e. ratings by CIO, for GE and 3M are equal or close to equal; meaning that, according to CIO's analyses, management practices are in line with each other. For each Factor, numeric values are set out in Appendix A.

These 'equal' Factors are noted below.

1. Management's emphasis is on short-term versus long-term profit.	GE takes a long-term view of profits
2. Management explicitly looks for or has no interest in innovation.	GE CEO. Board, and management explicitly look for innovation.
5. Management's tolerance for failure or not.	Reasonable position – unless initiative is not done as stated. No specific policy
6. Leaders emphasize management of people and their interactions for not	Substantial emphasis on people management.
11. Management's discourages or encourages use of independent work groups for special purposes.	GE establishes independent work groups for specific tasks.
12. Management makes decisions with lots of input from the rest of the corporation or not.	GE employee survey is evidence of a desire for input on at least this front.
19. Resources (budget, personnel, time, etc.) are generally available for new ventures or not.	Resources are available based on projects meeting established criteria.

[5] For the full background on Factors, please refer to the web site and IM (Innovation management) reports.

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Data missing

For three Factors, CIO does not have the data on which to base an opinion but the lack of information for GE, when there is comparable information available for 3M, could well, with further research, lead to an identification of priorities for improvement.

16. Management has an open and relaxed attitude towards mergers, acquisitions, joint ventures and divestitures or not.	Very open attitude to mergers and acquisitions but organic growth was emphasized under Immelt.
3. Management's has tolerance for mavericks or not.	No evidence to conclude either way.
7. Corporation provides career ladders, powers and titles for innovators or not.	No evidence to conclude either way.

Factor differences suggest new directions

Several Factors stand out as being different as between 3M and GE. It is these Factors which could well indicate a direction for GE needs to move in order to restore its reputation for innovation at least from the financial performance viewpoint.

3. Management's has tolerance for mavericks or not.	No evidence to conclude either way but 3M makes a point of recognizing mavericks.
8. Corporation is tolerant towards variances from the corporate norm or not.	GE has a fairly strict set of guidelines but not meant to interfere with innovation.
14. The corporation has specific mechanisms available for rewarding innovation or not.	No evidence to conclude either way
18. The organization has a decentralized or centralized hierarchy.	Was seen to be too highly centralized but is now attempting to remove layers of ‘checkers’.
23. The R&D budget is less or more than the competition.	R&D spending has been increased in recent years and is above competitor levels at least for the aviation segment.

The fact that GE does not make as much about its tolerance for mavericks, as does 3M, may not be significant but there is no doubt that there is a subtle message that suggests GE is more oriented towards a corporate norm than is 3M. This degree of rigidity comes naturally to a larger organization.

In the last few years the inclusion of research and development spending has been more difficult to tie back to GE’s segmented information leading to a concern that while it is understood that

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R&D spending is a necessary driver in the aviation segment, it is not so much required or carried out in other segments.

CIO's latest IM report stated that[6]; *GE has historically spent approximately 5% of its sales revenue on R&D, in line with Deere and P&G but about 50% of IT high tech companies, but most recently, under Immelt, this spending has risen to 6%. R&D spending has been a priority since the founding of the company.*

The Digital Era
CIO's ratings of Google are even higher than for 3M

CIO published its first profile[7] on Google's management practices in December of 2014, pre-Alphabet Inc. Largely based on information from the publication and discussion around a then new book by Schmidt and Rosenberg, the book offers insight into Google's manner of management.

Googles innovation management practices are an example of a new era in terms of the management of innovation, more specifically the practices which make for fostering a culture for innovation.

	Market cap	Total revenue	Return on equity	Return on assets	Employees
Google/Alphabet Inc.	670.28 billion	90.2 billion	15.42%	9.67%	73,992
GE	241.24 billion	119.93 billion	11.31%	1.69%	295,000

A quick summary for what makes for innovation at Google identifies the following major characteristics;

1. old management ideas but brought up to date – even futuristic in their application,
2. extreme openness and transparency,
3. optimal use of new technologies,
4. communications facilitated by technology with

Pasteur's model[8] at the center or Google thinking.

A comparison of practices of GE and Google is set out in Appendix B.

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[6] See discussion for Factor #23 in latest CIO's IM report on GE.
[7] The Google way – how they manage innovation – and a comparison with the 'Ideal'; 3M. Web site; www.corporateinnovationonline.com.
[8] Pasteur's quadrant is a label given to a class of scientific research methods that both seek fundamental understanding of scientific problems, and, at the same time, seek to be eventually beneficial to society. Louis Pasteur's research is thought to exemplify this type of method, which bridges the gap between "basic" and "applied" research. [1] Wikipedia.

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CIO, in the 'mini-profile'[9] of how Google manages innovation, identified numerous management practices which have contributed to Googles success. Several of these practices are listed here as one source which GE could refer to in their quest for improving performance.

- Full transparency of peoples' activities including regular updating of performance information. Manager's own performance reviews open to 'subordinate' staff.

- Board strategic presentations made by product/service experts and shared widely after presentation. No secret documents – with some obvious exceptions.

- Job descriptions/ activities (OKRs) used to bring about alignment within the organization.

- A focus on thinking big and having in mind the intersection represented by Pasteur's model.

- A deep sense in the organization that Google is working to better the universe by doing good deeds not 'evil'.

- Physical office arrangements focusing on crowding, relationships and not hierarchy, with the objective of spurring innovation and effectiveness.

- A process of filtering ideas based on the idea of forming teams with the relevant know how, encouraging collaboration, along with a continual review of potential projects (a long-standing practice at Google) and drawing on input from many sources.

- A functional organization concept to avoid creating 'silos'.

- A deliberate intention to focus a percentage of product investment into 'non-legacy' products.

- Untypical organizational thinking on the number of direct reports – designed to minimize micro managing.

- An extreme emphasis on the use of data for assessing projects and yet, at the same time, going ahead with an idea based on faith that it will be successful commercially, but based on limited financial information.

- Tight idea management at the top and yet the provision of freedom for individuals and groups to take initiatives – if they can secure a buy-in to make up a team.

[9] Google – Mini profile – manages differently, December 2014, and concluded that Google manages its innovation with a combination of old and new management practices but with a dramatic shift to openness and transparency. Available on the web site under 'Reports (IM+)'.

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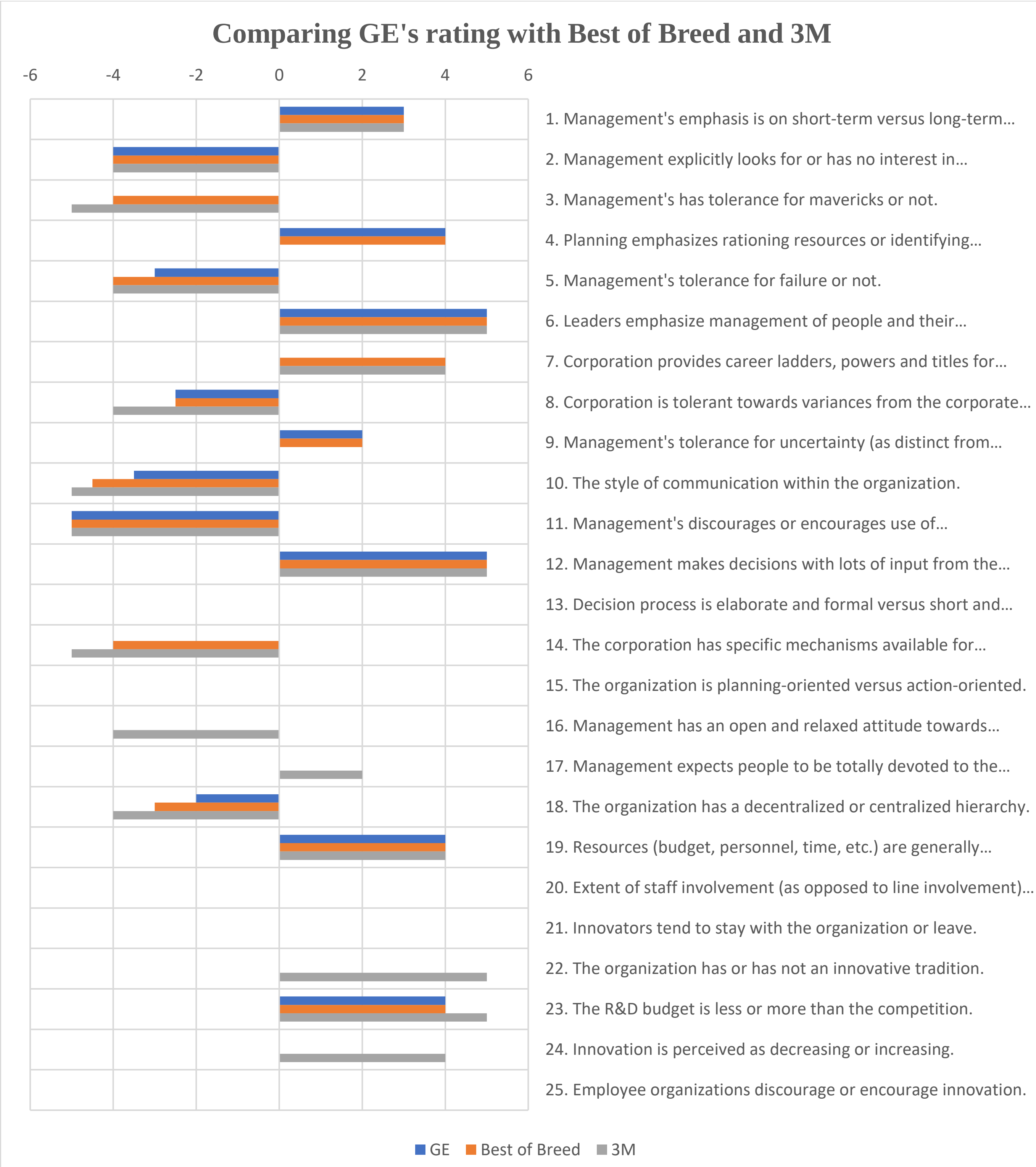
Appendix A



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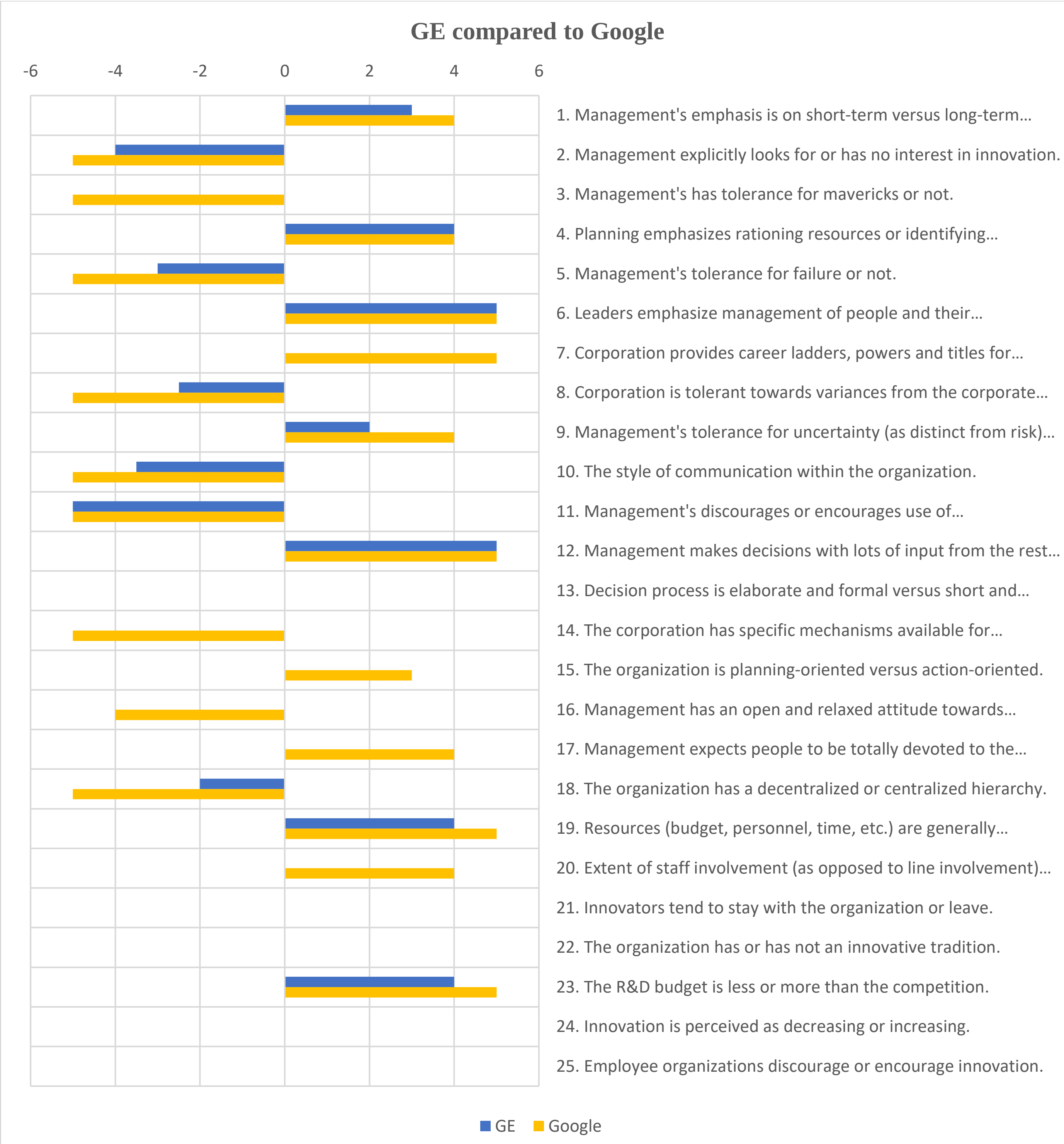
Appendix B


GE compared to Google
-6
-4
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0
2
4
6
1. Management's emphasis is on short-term versus long-term...
2. Management explicitly looks for or has no interest in innovation.
3. Management's has tolerance for mavericks or not.
4. Planning emphasizes rationing resources or identifying...
5. Management's tolerance for failure or not.
6. Leaders emphasize management of people and their...
7. Corporation provides career ladders, powers and titles for...
8. Corporation is tolerant towards variances from the corporate...
9. Management's tolerance for uncertainty (as distinct from risk)...
10. The style of communication within the organization.
11. Management's discourages or encourages use of...
12. Management makes decisions with lots of input from the rest...
13. Decision process is elaborate and formal versus short and...
14. The corporation has specific mechanisms available for...
15. The organization is planning-oriented versus action-oriented.
16. Management has an open and relaxed attitude towards...
17. Management expects people to be totally devoted to the...
18. The organization has a decentralized or centralized hierarchy.
19. Resources (budget, personnel, time, etc.) are generally...
20. Extent of staff involvement (as opposed to line involvement)...
21. Innovators tend to stay with the organization or leave.
22. The organization has or has not an innovative tradition.
23. The R&D budget is less or more than the competition.
24. Innovation is perceived as decreasing or increasing.
25. Employee organizations discourage or encourage innovation.
GE
Google