All Factors (F#s) What is the best mix of innovation management practices?

'Thinking about' series

On-line lab results analyzed by Factor with other references

May 25, 2017



One *really good* management practise is insufficient for the effective management of innovation. Booz c^{1} makes an insightful observation about innovation management.

- For the ninth year in a row, we have found no correlation between how much companies spend on R&D and their financial performance.
- How companies spend their innovation dollars is much more important. Our studies have consistently shown that innovation investments in select capabilities, tools, talent, and culture which are tightly aligned with a business's strategy are what drive sustained success.

Users of CIO's on-line lab have provided their opinion on a range of Factors. CIO's 'Thinking about' series reports on these results. Other papers provide specific analyses on topics such as; emphasis on short versus long-term profit, the importance of rewards and recognition, the importance of delegation and decentralization, searching for ideas and 'the tolerances', referring to failure, risk, etc. These papers are available on the web site under 'Ideas'.

This paper provides a perspective on the overall results drawn from the data base. Reading this paper will provide a sense of users' opinion on each Factor, a rating, and an indication of the degree of satisfaction on the part of the user. 3M's innovation management practices are highlighted.

The challenge for management is to choose the most appropriate mix of practices which will be most effective. Each organization is different and has its own current mix of practices. Often, the starting point for improvement may not be so clear. Analyzing the source of issues is the first step to choosing the right 'fix'.

¹ The 2013 Global Innovation 1000 Study

Building, sustaining and articulating innovation management best practices

Summary comment

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3M's experience. *3M has the best set of management practices but, more to the point, 3M's mix of practices is the best*

Appendix A

User's median 'Ideal' compared to Best of Breed

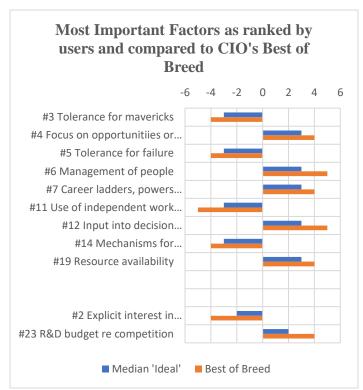
On-line lab results

An analysis of data base information provides the opinions of users

Overall results for users is provided in Appendix A. The chart shows the weighting users placed on each Factor compared with CIO's composite; the Best of Breed; explained later in this paper. For fifteen of the Factors, users provided a rating of either two or three for the median 'Ideal'.

Those Factors shown in chart opposite are those Factors where users placed a rating of three indicating a greater emphasis on their response to the question. For example, for Factor #3, tolerance for mavericks, users provide a rating of three compared to a rating of four under CIO's Best of Breed. In all the Factors noted, the Best of Breed is one or two ranked places higher than that registered by the user; not a surprising result given the source of information for establishing the Best of Breed ranking; e.g. using information from 3M and other highly-regarded companies researched by CIO.

Two additional Factors, #2 and #23, are shown since these two Factors are indicative of the importance placed by users on their interest in innovation (#2) and an associated Factor, #23, research and development spending. Users ranked these two Factors at



two whereas the Best of Breed ranking is set at four; a substantial difference to be noted.

Results here may differ from those provided by way of the customized report available on using the online lab, since CIO has performed some nominal statistical analysis on the data base for purposes of preparing this report.

Note that, as set out in Appendix A, there are no ratings for Factors #21, #22 and #23 as these three Factors are regarded as outputs and not, as for other Factors, inputs or decisions about the management process in place.

For three Factors shown in the chart in Appendix A,

- #13 relating to whether the decision process is elaborate or formal versus short and informal,
- #15 whether the organization is action or planning oriented, and
- #25 whether employee organizations discourage or encourage innovation. Results were inconclusive as opinions differed dramatically.

Median results are used for this analysis. The median, the number in the middle of a given set of numbers, for F#3 as an example, is -3, is believed to better portray the results than a calculation of a simple average which can be compromised by extreme ratings.

Interpreting results

In words

Paraphrasing opinions registered online is difficult and risky but to get the points across, this chart may enable a better understanding of the opinions of the bulk of users of the online lab.

F#	Users' opinion – paraphrased (words of wisdom)	No clear opinion	A good idea	A really good idea	Passionate opinion
1	Profit; a slightly longer-term view is preferred, not short-term		х		
2	A slight tilt towards innovation, but not necessarily explicit		х		
3	Have a good tolerance for mavericks			Х	
4	Management should focus on identifying opportunities not so much on cost reduction			Х	
5	Have a high tolerance for failure			х	
6	Management of people is a priority			х	
7	Career opportunities for innovators need to be evidenced			х	
8	Deemphasize the corporate norm 'stuff'		х		
9	Assume some risk in planning but not too much – be conservative		х		
10	Style (formal/informal) of communications within the organization	х			
11	Use independent work groups where possible			Х	
12	Consult within the organization (collaborate)			х	
13	Decision process (is it short and informal or elaborate and long	х			
14	Reward innovation where possible; both monetary and non-monetary?			х	
15	Is the organization planning or action oriented	х			
16	Is there an open attitude to mergers etc. – potential disruptors	Х			
17	Get a personal as well as a corporate life		Х		
18	Decentralize or centralize	Х			
19	The organization should have a sense that resources will be available of good projects			Х	
20	Make use of staff resources – in addition to line managers - collaboration		х		
23	Keep the R&D budget up to scratch		х		
25	Employee organizations impact some organizations but not many	Х			

In short, none of the Factors are given a 'passionate' rating which would be seen to result from a rating of four or five on the scale provided. This is not to state that there were not ratings at this level, as there were, but this was not the predominate result.

Best of Breed

CIOs' own interpretation

Having researched a large variety of highlyinnovative corporations, CIO has developed a rating for each of Factors under study; called the Best of Breed or BoB for short.

The chart shown in Appendix A compares users' median 'Ideal' with the BoB. For example, referencing Factor #1 – whether management's thinking is short-term versus long-term, users' opinion ranks at two – '2' – compared with the BoB of 3; not surprising when one is comparing a 'best' ranking to the mean 'Ideal' of registrants.

For all Factors, apart from Factors #9, the BoB ratings exceeds the ranking by users. This is not surprising given the range of companies chosen





Median 'Delta'

by CIO, most of which were picked because of their innovativeness.

Seldom does CIO's research come up with companies which exceed the BoB rating but there are exceptions. Our analysis of Apple (Apple versus RIM²) showed that, under Jobs, some of the ratings exceeded those of our Best of Breed.

Level of satisfaction/dissatisfaction

Users report a higher degree of dissatisfaction with rewards systems and managements' focus on cost reduction

The level of dissatisfaction expressed by registrants is measured by the difference between their rating the 'Ideal' situation and their current – 'Reality' at the time referred to as the 'Delta'.

Nine Factors stand out as representing the greatest level of dissatisfaction. The highest level of dissatisfaction lie in four Factors which are related.

- That management too often focusses on cost reduction and not on identifying opportunities
- There is concern over the provision of career ladders, powers and titles for innovators
- That mechanisms are not in place for rewarding innovation
- The sense is that resources are not available for good projects and this is a disincentive for innovation

² Report is available – free - on line under company research

Ranked just below the above four Factors is the issue of tolerance – or lack of tolerance- for failure.

3M's³ experience

3M has the best set of management practices but, more to the point, 3M's mix of practices is the best

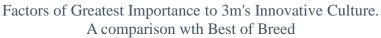
3M is CIO's choice for having the best set of innovation management practices impacting innovation. For almost all Factors, 3M rates at or close to Best of Breed and is a major component of the BoB.

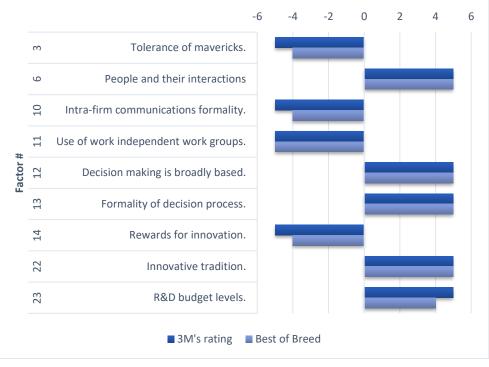
Above and beyond 3M's rating there are, in CIO's opinion, a set of Factors which provide 3M with that special characteristic which makes for success over the longer term.

• Tolerance for mavericks is a significant indicator of the openess of an organization to new ideas and new people. A closed organization would hardly welcome mavericks and make such a point of doing so. 3M has always welcomed mavericks and, over the longer term, this mantra has served as a bell

weather of the attitude of the organization to change.

- An emphasis on people and their interactions.
- Intra-firm communications keeping staff abreast of development.
- Use of independent work groups – along with the delegation of authority, accountability and responsibility, broadly-based decision making.
- Informality within the organization.
- The provision of rewards of one form or another for innovators and innovation.
- R&D spending which has been consistent over years.
- A tradition of being innovative.





³ See the latest IM (Innovation management) report available online

Sounds simple but in reality management needs to support a number of the levers of innovation, not just one or two.

For each of the 9 Factors we rate 3M against our Best of Breed⁴. In four Factors out of the nine 3M rates higher than our Best of Breed.

The list of 9 Factors should not be construed as the only important Factors impacting innovation. Further examination, at least with regard to 3M, indicate that second-tier rated Factors are also important contributors to 3M's reputation and success. It is just that the nine Factors stand out and make for a marked difference.

⁴ Best of Breed is a composite of the performance of our select group of companies.

Appendix A

