August 25, 2014



Volume 16 Number 17

John Stark Associates http://www.johnstark.com/

* The Embodiment of Open R&D Innovation Management Begins *

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In the July 7, 2014 issue of 2PLM, the scope and focus of recent research on R&D Operating Environments, Organic Innovation, Open Innovation, Intellectual Property, and the Top Corporate Metrics used to measure R&D and Product Development was introduced. The July 21 and August 4 issues addressed industry research findings regarding R&D Operating Environments and corporate practices in Organic R&D Innovation. In this fourth of a six part series, selected GGI findings on Open R&D Innovation will be discussed.

The study, entitled the "2014 Product Development Metrics Survey", was conducted by sending questionnaires to a wide range of companies developing products throughout North America. Participating companies had headquarters throughout the Americas, Europe, and Asia, but their response was for North American R&D-Product Development operations. Complete data sets were received from 200 companies. Consumer, industrial, medical, chemical, and automotive/vehicular products were the top respondent industries. Participants completed 31 questions across the five primary research subjects. The research period was September 2012 to October 2013. The results were published March 3, 2014 in a 138-page report. This research is statistically valid and provides a Margin Of Error for each research question.

Open Innovation [OI] is the ability of a corporation to invent and innovate using outside sources and resources, excluding the use of contracted personnel to supplement employee-equivalent responsibilities.

The credit for coining the term, and beginning the body of knowledge related to Open Innovation, is generally given to Henry Chesbrough and the publication of his first book on Open Innovation in 2005. Certainly the underpinnings of this work began years before. Arguably, "the beginning" was the popularization of "benchmarking other companies" in the 1980s which changed historical practices of keeping private information within a company. Robert Camp's book on benchmarking in 1988 methodized corporate practices that had begun a few years earlier.

Bodies of knowledge take four to six decades to flesh-out and mature. In its nascency for seventeen years, and now growing in corporate practices for almost a decade, Open Innovation has progressed enough to begin to see some of the strategies, approaches, frameworks, software, and metrics that are likely to withstand the test of time. That said, much is still yet to be discovered and thought out. GGI's research provides a snapshot of OI evolution after approximately the first decade in practice.

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Open Innovation is a two way street. GGI coined "Inbound Open Innovation" and "Outbound Open Innovation" to segment the research. If a company looks to make its capabilities available to other companies that may have an interest, that is Outbound. If a company is looking to acquire innovation to supplement its own Organic R&D Innovation capabilities, or perhaps to repackage and sell acquired innovation, that is Inbound. This article focuses on Inbound OI.

Five Inbound OI areas were researched: Importance of OI, Financial Tracking of OI, Financial Results from OI, Corporate OI Approaches To Acquire Capabilities, and Processes Used To Manage OI. Over 95% of all respondent companies provided answers to these research areas. That, in itself, is an indication that this evolving body of knowledge is likely to have staying power in the years ahead.

Importance of OI: Corporate emphasis on OI is currently strong; equivalent to the high corporate emphasis to improve organic innovation after the 2001 recession. While almost half of respondents said that the emphasis had not changed in the past five years, almost half said the initiative had become either more or much more important. Less than three percent indicated any reduction in importance. And, it is possible that those were the market leaders that were already years into OI practices and some of the excitement had worn off.

Financial Tracking of OI: Systems and infrastructure typically lag the implementation of new corporate practices. As well, cost tracking systems are generally much better architected and featured to take on a new activity than are revenue and profit tracking systems. Four out of ten companies now track OI development costs, and slightly less track capital costs. Three out of ten companies now track OI revenues, and slightly less track OI profits.

Financial Results from OI: While every company may not know exactly what monies accrue to them from OI initiatives, there is no lack of clarity on practitioner perceptions of economic benefit. A touchier area to research than corporate importance, the positive response on financial results was perhaps surprising. Six out of ten companies indicate neutral results, while acknowledging that OI has increased total corporate capability. Four out of ten companies indicate positive or strongly positive economic benefits. Only three out of two hundred respondents indicated anything other than neutral or positive.

Corporate OI Approaches To Acquire Capabilities: Today's corporate practices are a combination of practices used by non-R&D functions that have been imported to R&D, and new practices that uniquely evolved to fill corporate needs. Currently, the two most used OI approaches are "Supplier Co-Development" and "University Contract Agreements." While both have been part of the corporate nomenclature for years, both have increased in usage to sixty-seven percent and fifty percent respectively in the OI era. Fifteen to twenty percent report the emergence of several specialized bartering and brokering services that make matches between Outbound and Inbound companies. Like scouts for professional athletic teams, companies utilize these service firms to find and inventory capabilities and/or facilitate the licensing or sale of those capabilities. OI can also be a joint activity, two halves coming together to make a whole. Forty percent report joint R&D ventures with non-competitors.

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approaches. Almost all approaches have achieved greater than a five percent industry penetration.

Processes Used To Manage OI: Like financial tracking systems, formalized processes also lag the implementation of new corporate practices. Currently, seventy-three percent of companies do not yet have dedicated OI processes. When the time comes, OI processes will be more numerous than Organic R&D processes due to the quite wide range of OI approaches. Fifteen percent report having at least one dedicated OI processes at this time. Twelve percent report having either two, three, or four processes at this time.

SUMMARY: Open Innovation is currently a corporate priority, rivaling organic innovation's importance a decade ago. While companies do not generally have processes and systems in place to institutionalize OI practices, it is a pretty sure bet they will in the years ahead. Corporate perceptions of the benefits and financial performance of OI are strongly positive. Few will turn away from the extra revenues and profits that OI could provide. While still a young body of knowledge, the increased usage of old techniques and the emergence of new techniques are enabling OI across companies and geographies. New service industries are spawning to fill corporate demands for OI. Expect that some new seemingly questionable bartering, brokering, or scouting firm will be knocking on your door in the years ahead to see if your company is interested in Inbound or Outbound OI.

For more information about Goldense Group Inc.'s (GGI) R&D, Product Development, Innovation, and Metrics research approach and topics, ongoing since 1998, please visit their <u>research portal</u>. Licensed pdfs of the 2014 findings and other research are available in GGI's iStore or through regarded distributors including Baker & Taylor and MarketResearch.com.

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