# Lean structure and social media: delivering open innovation promises.


**Structured abstract**

- Purpose
  This article explores how social media can be used strategically for delivering the promises of open innovation and examines the types of structure that can foster the integration of these new tools with more classic top-down innovation approaches.
- Design/methodology/approach
  Single case study: ALPHA (pseudonym), a multinational company that combined an integrated strategy and the creation of a lean structure with the full potential of social media.
- Findings
  To take on the challenges of energy transition, ALPHA has implemented a low-cost approach allowing it to harness the promises of open innovation. This combined the introduction of a lean structure, two social media platforms and processes that ensured the integration of open innovation activities with existing departments.
- Research limitations/implications
  The research is based on a single case study. Further research should be conducted to establish the generalization of the results.
- Practical implications
  This paper highlights the key success factors in making such a light approach successful: controlling cost and disruption of open innovation; integration matters; leveraging complementarities with existing social media initiatives; and bottom-up adoption.
- Originality/value
  The research provides a unique approach that can be practically implemented to leverage social media to deliver the promises of open innovation and offers an original way of integrating social media lead innovation and open innovation strategy with more classic R&D activities.
- Classification
  Research paper.


- Keywords
  innovation strategy; open innovation; R&D; social media, lean structure, case study.

## 1 Introduction

For a long time, the innovative efforts of companies were focused on new technologies and vertically integrated R&D was the most common way to develop new products: from labs to Skunk Works, bricks-and-mortar R&D infrastructures and 'invent-it-ourselves' models dominated innovation design. Since the 2000s and the emergence of the Internet, the world's innovation landscape changed and new models emerged. Companies needed to deal with the abundance of new technologies, increased flows of information and threats by new entrants in their own markets, all while fulfilling imperatives to sustain high levels of growth (Christensen, 1997).

In that context, the open innovation paradigm offered a new approach that relied on firms being opening to external sources of technologies and ideas (Chesbrough, 2006). The open innovation paradigm urged organizations to develop partnerships with external actors such as suppliers, distributors, SMEs, multinationals and universities, but also individuals like users, citizens and engineers. The approach enables innovative companies to design new business models, allowing them to continuously update value propositions ahead of their competition.

To harness open innovation and tackle the complexity of such multi-actor efforts, firms developed new approaches and tools to better connect with their ecosystem. Social media (SM), in fostering communication and connecting people and companies, represent 'a vehicle for developing customer insights, accessing knowledge, cocreating ideas and concepts with users, and supporting new product launches' (Roberts and Piller, 2016). Current research suggests that, despite the promise SM hold for innovation, its potential is rarely realized (Roberts and Piller, 2016). Although some companies have used SM to develop new insights that led to successful new products, many others don't know how to utilize SM for innovation. More specifically, sporadic efforts – i.e. those targeting only

internal or external interactions – are not integrated into a coherent strategy. In particular, such efforts are not combined with more classic innovation approaches through R&D efforts. This article explores how SM can be used strategically for delivering the promises of open innovation and the types of structure that foster the integration of these new tools with more classic top-down innovation approaches. ALPHA (pseudonym), a multinational company that combined creation of a lean structure with the full potential of SM into an integrated strategy, is a case study.

## 2 Using SM for innovation

SM have the potential to revolutionize the way organizations interact with actors, both inside and outside their boundaries (Kaplan and Haenlein, 2010). SM use web-based and mobile applications to create interactive platforms upon which individuals and communities can share, co-create, discuss and modify user-generated content. SM have changed significantly the way communication takes place between organizations, individuals and the community at large. SM include not only mainstream social networking websites such as Facebook or Twitter, but also applications that permit fast and/or short multi-directional interactions (e.g. RSS) and exchanges of information (e.g. blogs and wikis). These new tools rely on participation, creativity and high levels of interaction between users, and are characterized by low entry barriers and user-friendly interfaces. From a company perspective, these innovative tools offer tremendous potential in terms of access to a vast source of untapped knowledge, both inside and outside the organization.

Despite this potential for innovation, many organizations do not yet have a specific or adequate approach to the challenges and opportunities offered by SM (Roberts

and Piller, 2016). One challenge for companies is to identify how to benefit from this shift in communication behaviour that can never be completely restricted or controlled. Organizations should find out how to harness the innovation potential of SM while minimizing the risk of losing competitive advantage when sharing knowledge in SM networks (Von Krogh, 2012).

Emerging research on the topic shows how current SM strategies address this risk by either focusing only on internal or external stakeholders.

Some innovative companies – like Dell, Del Monte and Nokia – use public SM (e.g. Facebook, Twitter etc.) to source ideas for improving existing products or services and to develop new ones (Nambisan and Nambisan, 2008). They monitor external SM networks for ideas and even participate in online conversations to interact with their communities, for instance by using Facebook groups for official interaction. Another way for companies to reach inputs from external stakeholders is to create their own SM platform for innovation, like Procter & Gamble did with 'Connect & Develop', whose purpose is to nurture social interactions and benefit from the ideas and solutions that come from 'outside' (Chesbrough, 2006). Here, employees post problems and needs on the platform that external players, such as research institutions, customers, suppliers, individuals and even competitors, are invited to solve with the prospect of earning a reward if the idea proves successful (Huston and Sakkab, 2006).

Other companies use SM tools for internal exchanges aimed at fostering innovation, and commonly involve relying on enterprise SM tools as proprietary solutions developed by a service provider. Usually, they are used internally as an enterprise social networking platform (e.g. IBM Connections, MS 365 Yammer and/or SharePoint, Jive, etc.). Such solutions enable internal employees to communicate and collaborate on work projects, to

locate subject-matter experts and to capture and share unstructured content (e.g. blogs, video) in addition to documents for curation (Leonardi *et al*., 2013). Some organizations have also developed proprietary internal SM solutions for innovation; for instance, IBM's internal social network, 'Beehive', facilitates a number of activities that are valuable for innovation, such as expertise identification and rapid solicitation from the extended online community (Turban *et al*., 2011).

However, existing research into SM use for innovation analyses internal and external focuses separately. Beyond its exploration of these focused initiatives, research is still lacking on strategies, organizational mechanisms and drivers on combining intra- and extra-organizational use of SM in an *integrated* strategy for leveraging innovation (Roberts and Piller, 2016). More research is needed on the connection between internal and external use in combination with more classic R&D activities.

## 3 The ALPHA case study

This paper examines the use of SM for innovation by ALPHA, a multinational company that conceived a sophisticated approach combining internal and external SM for innovation. ALPHA is a major global player in energy and environmental solutions, operating in 70 countries, with about 150,000 employees, a turnover of €69.6bn (in 2016) and operates in three core business areas: power, natural gas and energy services. In the early 2010s, ALPHA was faced with the major challenges associated with energy transition. Beyond the need to develop renewable energy sources as well as new energy efficiencies, the concept of 'energy transition' encompassed a shift from centralized to distributed generation. For instance, wind farms and solar parks can involve citizens in

energy production. This remains a major innovation challenge that goes beyond the sole technical one.

The objective was to concentrate on the connection between the company's internally focused SM initiative, the externally focused SM initiative and existing, more classic approaches to innovation. The study began with the combination of the tools and their integration with more classic approaches to innovation, conducting two explorative interviews with innovation managers from the recently created 'Innovation and New Businesses' unit (see section 4, below). Notes were taken at the 2014 annual corporate Knowledge Management event (about 250 participants) where the two SM tools were promoted. Finally, secondary data (internal reports, press articles, interviews with the Head of Innovation) were collected. This helped identify the key drivers, barriers and tensions associated with the introduction of these tools and the approach adopted at ALPHA to develop an integrated strategy. Interviews were conducted with the same innovation managers plus the INNOV@ALPHA platform manager to refine and corroborate primary findings.

## 4 An integrated strategy for open innovation at ALPHA

To meet the challenges of energy transition, ALPHA put in place a low-cost approach that allowed it to harness the potential of open innovation. This combined the introduction of a lean structure, two SM platforms and processes that ensured the integration of open innovation activities with existing departments.

In 2013, ALPHA created a small, agile entity dedicated to open innovation: the Innovation and New Businesses unit (INBs). This step followed analysis of the main domains in which open innovation would deliver and make a competitive difference for

the company. The three innovation priorities identified were: (i) intelligent energy management; (ii) cities, territory and mobility; and (iii) habitat and energy performance.

Reporting to the group's Head of Innovation, the INBs unit comprises a team of about 20 people – a modest entity compared to the size of the organization – and relies on a combination of intrapreneurship, internal incubation with external partnerships and investment in high-potential start-ups and ventures. To achieve its objectives, INBs implemented two 'home-made' SM tools: (i) ALPHABUZZ (pseudonym), dedicated to external projects; and (ii) INNOV@ALPHA (pseudonym), as an internal idea crowdsourcing platform.

The ALPHABUZZ platform, launched in November 2013, aims to develop external collaborations for innovation by attracting external skills and competencies, ideas, patents, R&D projects, start-ups, etc. ALPHABUZZ aims at becoming an open innovation intermediary, a link between external inventors, creators, innovative start-ups of the market and ALPHA businesses. One objective is to put ALPHA on the map as a valuable partner for innovative ideas, thus correcting the current image of a traditional player. As one of the managers conceded:

'ALPHA is not well identified so far. We have a quite old-fashioned image in France or in Europe so start-uppers don't naturally think about us when they have projects. […] We need to change that' (Innovation manager).

The objective was thus to establish ALPHA as a major actor of its own innovation ecosystem not only by monitoring patents and market competencies but also by communicating externally about ALPHA's businesses and innovations (newsletters, web news curation and connections with 'public' SM, e.g. LinkedIn, Twitter, Google+, etc.).

ALPHABUZZ is externally focused, offering multiple ‘spaces’ to interact with external stakeholders: one is dedicated to projects/ideas submission; another is dedicated to registered patents and competencies proposition; a third is dedicated to ALPHA’s call for projects/partnerships; and a fourth is dedicated to communication and promotion of the group’s innovations. When stakeholders contact ALPHA via ALPHABUZZ, their contact will always be acknowledged – the first step in the development of a trusting relationship. The full-time platform manager addresses the contact request to the relevant expert of the domain of interest (the INBs structure has one expert for each of the three priority innovation domains). If there is interest, and depending on the nature of the partnership, the expert contacts the corporate investment funds or a potentially interested business unit (BU) to launch an R&D project. The key incentive for external partners is the possibility of benefiting from the support of such a major company for their innovation and the ensuing commercial potential that might come from such a collaboration.

INNOV@ALPHA is internally focused. It was launched in 2014 as an enterprise social networking platform for innovation in which employees can submit ideas as catalysts for development of new businesses. If an idea is to be developed further, it must be sponsored by a BU that takes responsibility for its implementation, however the idea is also floated externally to allow scrutiny to take place. As such, the processes associated with INNOV@ALPHA contribute to an open innovation model in which internal ideas are exposed to external inputs and support. A full-time platform manager is dedicated to this tool. The platform also allows employees to create and animate communities of interest or creation. This is illustrated by the founding principles of the platform:

‘INNOV@ALPHA was created according to several principles. We wanted a platform based on democracy, which means that every employee is free to participate or

not without being forced to ask his hierarchy, and a platform that provides equivalent social media functionalities as the ones that people use in their private sphere, like Facebook etc.' (Innovation manager).

Incentives for employees' participation are based on common web gamification principles. If an employee participates in posting an idea, he/she gains points that can be exchanged in an e-shop or given to a charity. Events are organized to trigger further engagement.

'We have launched a call; the booster was an I-Watch prize to win for the best proposal, and it was successful. But what we see is that people enter through this, but it finally leads to other ideas, basically it boosted this type of ideas but the others as well…' (INNOV@ALPHA platform manager).

Once an idea is posted in INNOV@ALPHA, the platform manager first checks the idea's focus, the clarity of presentation and its compliance with the required format. If validated, the platform manager sends it to the internal expert of the domain; they endorse it and share it with potentially interested BUs of the group. An idea is progressed only if a BU is committed to its development in terms of funding (50 per cent of the costs), technical support and further development, when it becomes an R&D project in a partner external incubator. If successful in reaching an operational outcome, the innovation is integrated in the sponsor BU at the end of the process. The project manager may or may not be the idea bringer but, in any case, is rewarded for the idea.

By mid-2015, INNOV@ALPHA had 8,500 members (with 10,000 in 2016 and 13,000 in 2017), 80 communities, 70 working groups and more than 200 processed ideas (450 in 2016 and 700 in 2017). In 2016, it exceeded expectations by generating 20 employee-led projects in 12 partner incubators.

Finally, this integrated strategy, combining a lean structure with two SM platforms and specific processes, has leveraged ALPHA's innovation capabilities. This new approach of digital open innovation has increased ALPHA's visibility in its own innovation ecosystem by developing ties and valuable exchanges with its main stakeholders, both internal and external. However, it was not without difficulty.

## 5 Lessons learned from ALPHA

This case study identified four key success factors for lean implementation of open innovation:

*Controlling cost and disruption of open innovation*

ALPHA's most remarkable feat lies in its quick and low-cost development of a new, complementary approach for open innovation.

Beyond simply describing these SM-based innovation processes, it is worth highlighting that this business innovation approach was developed in parallel to ALPHA's classical R&D activities undertaken by their 800 researchers and experts in their 7 R&D centres worldwide. The purpose of the INBs unit is to generate new markets through a flow of ecosystem-pull ideas and to support their development towards maturation alongside technology-push R&D carried out in labs. This initiative implies a shift in the corporate innovation paradigm by accepting that innovation is not only top-down but also that every employee is seen as an ambassador and a gatekeeper towards the firm's business ecosystem – i.e. bottom-up.

However, the fact that the two logics – push and pull – were not seen as substitutes but as complementary allowed for the implementation through a low-cost approach that relies on a modest structure leveraging SM solutions. It also meant that

implementation could happen without threatening ongoing and core push R&D activities that were central for exploration at ALPHA.

*Integration matters*

Because they did not consume much in terms of resources and were conceived as a hub to coordinate open innovation flows, the new structures were well placed to leverage existing resources, be they in BUs, R&D or external incubators. Integration of the push and pull approaches has been facilitated by the vision of the new global corporate innovation strategy, characterized by the three strategic innovation priorities and the convergence of external and internal idea flows between them. This enabled clear delineation of areas in which open innovation should contribute.

However, the role of single, agile units was essential; they ensure coordination of the flows of knowledge and ideas from external to internal. The process organized the recognition of external expertise and its adoption in internal innovation. It also allowed internally generated ideas to benefit from external expertise and the necessary space outside of the bigger, more bureaucratic R&D machinery of ALPHA. However, such internally generated ideas were not cut out of the business since sponsorship from the operational BU was needed.

Another important feature of this integration is the commitment of BUs in the development of the selected ideas. As both beneficiaries and sponsors, these organizational units not only participate in realization of the value created by the ideas, but also in their development through external incubation. Hence, if the project development is a success, the outcomes are integrated in corporate business and turned into value creation.

*Leverage complementarities with existing SM initiatives*

Another key driver concerns leveraging complementarities with existing initiatives, in relation to SM in particular. When the open innovation approach was launched by the group, BUs and subsidiaries had already implemented local SM initiatives (using tools such as Microsoft SharePoint/Yammer or BlueKiwi). For instance, some BUs were using SM tools to locate expertise, share knowledge, solve problems faster and save time. Such efforts were dedicated to incremental operational improvements. Being aware of this situation, INBs deployed new SM platforms dedicated to business innovation, therefore complementing existing SM tools dedicated to the refinement of current operations and avoiding having a multiplicity of IT tools and cannibalization of existing and new SM platforms in the process. As one manager put it:

> 'The problem lies not in the presence of several social networks, but is to make sure that they are well connected and that they address a need…' (Innovation manager).

*Bottom-up adoption*

One important success factor was the broad adoption of the SM platforms in the ecosystem, and it's important to mention ergonomics here, highlighting usability and content. To develop user-friendliness of the SM platforms, the INBs team needed to overcome psychological and organizational barriers such as the fear of posting or assuming responsibilities of an idea or topic (in developing sandbox spaces for communities), lack of trust (in developing confidentiality) and in proposing relevant and interesting content as well as using curation of relevant, non-mainstream news about innovation within the group businesses and competitors.

> 'More than other any IT tool [in SM], what is important is the content and we need to present it well' (INNOV@ALPHA platform manager).

Appropriation of SM platforms was also enhanced by the continuous development and testing of new functionalities for the users; as well as services (tools, dashboards, etc.) for community managers in developing participation and membership.

Another key organizational driver regarding the success of the implementation of these SM platforms was the 'promotion' of these tools to ensure participation. In the case of INNOV@ALPHA, as the INBs staff did not directly benefit from strong support from the corporate internal communications department, they worked hard to communicate and deliver training via internal workshops and innovation meetings etc. to develop knowledge and encourage use of the SM platforms. Online incentives such as those described above also played a key role in encouraging participation.

This promotional work was also supported by the community of innovation managers of the group, early adopters of the platform, as ambassadors diffusing and communicating amongst BUs of the firm. The purpose was to rely on human communication to raise awareness of the platform, in contrast to bottom-up implementation approaches that often characterize IT initiatives. This implementation approach is well suited to the democratic and self-driven motivations that come with SM and was key to the success of the platforms.

## 6 Conclusion

This research makes several contributions.

First, the results of this study expose the determinants of an integrated framework of SM-based innovation and the key tensions it can help to tackle, and expose the different associated benefits, while previous research focuses on only some of these points. The strategy and organization solution adopted facilitated a combination of

bottom-up and top-down initiatives for the integration of inward and outward flows of ideas and knowledge and for institutional buy-in while maintaining the agility of a light structure.

Second, what is noteworthy here is how such a low-cost initiative was able to influence innovation within a large multinational company. In light of the results achieved, the innovation unit represents a small investment, one that embraces the diminishing effect of SM by leveraging internal and external knowledge flows where individual initiative and operational buy-in is emphasized rather than excessive planning. Moreover, this low-cost and high-potential approach to innovation complements traditional R&D processes.

Third, the key factors for success here were: (i) controlling cost and disruption; (ii) favouring integration; (iii) leveraging complementarities with existing SM initiatives; and (iv) adopting a bottom-up approach.

This study highlights organizational best practices that might inspire innovation managers elsewhere: it deepens knowledge about using SM as essential boundary-spanning tools to develop companies' open innovation capabilities, and the results contribute to a better understanding of new ICT-based open innovation management to develop innovative businesses and ventures.

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