A case study on open innovation on Procter & Gamble. Part I: Innovation strategy over years

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Abstract. The purpose of the present paper is to analyse how product innovation process has been organized by a multinational company, such as Procter & Gamble. Since open innovation is a new approach on the local market, we have chosen to conduct a research in form of a case study showing the steps that the company has taken in order to involve other organizations to contribute to the development of new products. The paper will first describe what innovation management theory is suggesting. Following this, the mission and vision of Procter & Gamble will be analysed emphasizing its innovation efforts in time. The approach that the company has nowadays, related to development of new products, has its roots in several complex initiatives in the past, initiatives that have in their central attention the customer. Finally, it provides the research limitations and implications for future analysis on the case of Procter & Gamble open innovation approach.

1. Introduction
An increasing interest has been shown in the last few years for all that is connected to innovation: new products and services, management of innovation, innovation models and innovation tools. What modern economic theories have proven for sure is that innovation has an effect on a company’s capability to differentiate itself. Paul Romer has further developed the theories of Schumpeter, the so-called neo-Schumpeterian economic growth theory, suggesting the main idea that firms will try to increase their profits by directing all their efforts into developing new products and services [1]. At the opposite side of neo-classical economics that looks at industry and economic performance without taking into consideration the differences between firms, the Schumpeterian view strongly supports that the manner in which a company manages its resources over time and develops its capabilities will influence its innovation performance [2].

2. Introduction
A mutual consideration on innovation concept places this process in the area of new products and services, which are produced by using new information and that take place in two phases: invention and exploitation [1, 2]. Looking at innovation as a management process allows us to see the distinction between an innovation and a product, which is the output of innovation [2]. Another key aspect regarding innovation as a process is the distinction between innovation and invention. Others have concluded that innovation has to do more with the commercial and practical application of an invention. The latter is the conception of an idea and intellectual effort of putting together scientific information comparing to innovation being the subsequent result of invention into the economy [2].
Since the benefits of welcoming innovation into a firm have been proven by economic theories, the next step would be to see how those interested can influence successfully the innovation process. One way of listing the specifics is to do empirical studies as this to see how other companies organize themselves. In table 1 below we can see the most important key features that can easily transpose into the vision and mission of a company in order to sustain an innovation process [2].

**Table 1.** Summary of characteristics that facilitate the innovation process.

| Organizational requirement                                      | Characterized by:                                                                 |
|-----------------------------------------------------------------|----------------------------------------------------------------------------------|
| Growth orientation                                              | A commitment to long term growth rather than short term profit                   |
| Organisational heritage and innovation experience               | Widespread recognition of the value of innovation                                |
| Vigilance and external links                                    | The ability of the organisation to be aware of its threats and opportunities      |
| Commitment to technology and R&D intensity                      | The willingness to invest in the long term development of technology             |
| Acceptance of risks                                              | The willingness to include risky opportunities in a balanced portfolio           |
| Cross-functional cooperation and coordination within organisational structure | Mutual respect among individuals and a willingness to work together across functions |
| Receptivity                                                     | The ability to be aware of, to identify and to take effective advantage of externally developed technology |
| Space for creativity                                            | An ability to manage the innovation dilemma and provide room for creativity      |
| Strategy towards innovation                                     | Strategic planning and selection of technologies and markets                    |
| Coordination of a diverse range of skills                       | Developing a marketable product requires combining a wide range of specialised knowledge |

Still, in order to differentiate itself a company has to design an innovation model that has the role of defining that specific structure, resources, target customers, value proposition and other details that eventually will help the company focus on what they want to accomplish. As Vargo el al. appreciated [3], value is created when the customers reach the context and integrate the products or services offered. In other words, based on a service-dominant logic, the focus is not on the offering per se but on the customers’ value-creation process [3]. Year 2000 has brought a new perspective over the interaction of firms and consumers showing the customers are taking active roles expressing what they expect from companies experiences. Later on, in 2004, the official debut of the term co-creation has been made by Prahalad and Ramaswamy, the authors explaining that co-creation of value is an initiative of the customers who are "dissatisfied with available choices" [4].

All companies, similar in size with Procter & Gamble and even those who are smaller face the pressure of reducing costs of production and constantly improving their operations. Repetitive tasks and a well-organized environment allow the firm to deliver their product under the right specifications but at the same time, in the same environment there is a need for creativity in order to make room for new ideas, approaches and products [2]. To sum up, it is the firm’s challenge to balance this kind of environment if they want to allow innovation in their house. Precisely due to this heavy mission that a firm may have, balancing its resources and activities, open innovation has taken a lot of attention in the last years. Adding the input of customers and integrating outside company knowhow on top of all other resources that the company has, has proven to be a success in the case of many companies. Open innovation, implies that “firms can and should use external ideas as well as internal ideas, and internal
and external paths to market”, in their pursuit to advance their technology. One view of the actual author who coined the term is that open innovation can be thought of as the antithesis of the traditional vertical integration model where internal research and development activities lead to internally developed products that are to be distributed by the firm [5].

3. Case study: Procter & Gamble innovation in time

In order to draw conclusion on how did Procter & Gamble organized its activities over time, we have conducted an analysis of its evolution pointing to the most important moments. Founded in 1837, the company has its headquarters in Cincinnati, United States and gathers an impressive portfolio of products with 23 brands with annual sales of $1 billion to more than $10 billion, and 14 with sales of $500 million to $1 billion - many of those with billion-dollar potential [6].

3.1. Procter & Gamble: company evolution and product development

After 50 years since it was established, in 1887, P&G comes up with a new way of involving its employees in the company activity. It was the first time the company initiated a special program that offered the opportunity for employees to take shares in the company and define their role in what its success was. In 1919 William Cooper Procter, the son of William Procter continues with his efforts to institutionalize the relationship between the company and its employees. In 1924 it was for the first time in the United States when a company has taken the decision to grant all resources for a research study with a strong focus on its consumers. The goal of this activity was to offer a better understanding on what consumers needs are, anticipate it and respond by creating products that would improve the quality of their day by day life [7]. Following the same strategic direction, in 1941, P&G develops a customer relationship department to handle all inquiries in a formal way. In the years to follow, by 1980 there were several toll free numbers assigned and email correspondence was growing, all for the same purpose to be close to the consumers and, allow them to contact the company by all means. All the strategic movements the company has done over time have created a tremendous advantage of being one of the companies that best knows its consumers. Along the way Procter & Gamble has grown through many acquisitions and product developments which made its portfolio to be one of the most complex at that time and even today. In table 2 we can see just a few of the most important events in the history of the company indicating the desire to improve its production and research capabilities, be the first to use the technological breakthroughs and connect with its consumers.

Presently the company has several research facilities in different parts of the world, from Western Europe – 8 research centres, to Asia, where the Singapore Innovation is considered the third high-tech innovation centre in the Asian region [9].

With a declared purpose of improving the life of its consumers, the company states that the results will be that satisfied consumers will turn the company into a market leader [10]. When it comes to its values the company mentions integrity, leadership, ownership, passion for winning and trust. One of the key attitudes that strongly suggest the desire to innovate is the fact that all employees are encouraged to act as owners and also constantly challenge the status quo. Since employees are truly considered to be an asset, The Clay Street project has been initiated with the purpose for creative thinking to deliver great innovative product and change the culture. Teams inside P&G were exposed to diverse ideas and methods that caused them to think differently about their challenge and themselves [11]. Among the eight principles that lay at the heart of P&G foundation there is also innovation. This principle articulates the fact that the company places great value on new consumer innovations and this is why challenges convention and wishes to reinvent the way it does business [12]. Leadership is an important coordinate placed by the company as one of its values. The importance of leadership is crucial to the innovation process as it allows all ideas to come to the surface and not to be blocked at a certain hierarchical level or by internal procedures. So the company is committed to eliminate organizational barriers in order to deliver its strategy [12].
Table 2. Important historical events over time [8].

| Year | Event |
|------|-------|
| 1890 | P&G sets up an analytical lab at Ivorydale to study and improve the soap-making process. It is one of the earliest product research labs in America. |
| 1896 | P&G’s first colour print advertisement – an ad for Ivory – appears in Cosmopolitan magazine picturing this “Ivory Lady.” |
| 1915 | The Company builds its first manufacturing facility outside the United States, in Canada. Employing 75 people, the plant produces Ivory soap and Crisco. |
| 1931 | Procter & Gamble’s brand management system is born. |
| 1939 | Just five months after the introduction of television in the U.S., P&G airs its first TV commercial (for Ivory Soap) during the first televised major league baseball game. |
| 1943 | The Company creates its first division – the Drug Products Division – to sell its growing line of toilet goods. |
| 1952 | A new research facility, Miami Valley Laboratories, opens in Cincinnati. MVL is the Company’s first facility dedicated solely to upstream research. |
| 1965 | The first paper plant built by P&G opens in Mehoopany, Pennsylvania. |
| 1988 | The company starts to produce its goods also in China, 1st operation in the world largest consumer world. |
| 1995 | P&G opens its Health Care Research Centre in Cincinnati to serve as the worldwide hub for the Company’s health care business. The Health Care Research Centre is designed to promote innovation and efficiency in bringing new health care products to market faster. |
| 1998 | P&G announces Organization 2005, a new global organizational design to drive innovative ideas to world markets faster. |

3.3. Open innovation approach: working with external partners & employees

By analysing its capacity to launch new product on the market, Procter & Gamble has been considered for quite some years now one of the most innovative consumer products company. But this performance it’s not the result of chance but more of a systematic and disciplined approach [13]. When using The Initiative Diamond approach based on a stage gate model, the company stated to have aligned the entire organization on how to use Stage Gate success criteria, portfolio and resources to deliver better innovations. SIMPL (Success Initiative Management & Product Launch) process designed in 1990 was a rigorous one and it explained the steps to take the idea through launching it and post-launch. There are four drivers of performance that worked in the case of P&G during the usage of stage-gate model: a product innovation and technology strategy for the business; an effective and efficient idea-to-launch system; resource commitment, focusing on the right projects and portfolio management; a positive climate and environment for innovation [13]. Beginning of the year 2000 the company has changed its focus from research and development since the growth generated by it was not efficient anymore. The budgets allocated to innovation were under pressure due to the high costs of the new technologies, at the same time only 35% of the new products were achieving their financial objective. The new focus has become developing new products by enhancing external relations and the company’s new goal was to reach 50% of the innovations from collaborating with external parties [14]. In the following year P&G had a designated team in charge to share the principles of disruptive innovation. Quite often A.G. Lafley, the CEO of P&G, has been mentioned as one of the leaders who master the skills of disruptive innovators. For example, by asking a lot of questions, he is considered to have changed the way the company worked. Another example supporting this is the fact the all employees are encouraged to devote 25% of their time on finding ways to improve what they do [15]. One of the new directions set by the company’s CEO was to increase the organizational support in order to develop new business. For this, new teams were appointed, with main purpose to grow the business, teams with resources kept separate from the core business.
At the same time that Connect & Develop platform has been launched to support the strategy mentioned above, TAG (Technology Acquisition Group) was one of the initiatives that have been defined with the purpose to search, outside the company, for technology [16]. In table 3 we can see examples of, internal & external connections, used by the company in order to leverage its technical capabilities into new as well as existing products [17]

Table 3. External and internal activities supporting open innovation [17].

| External connections                  | Internal connections          |
|--------------------------------------|-----------------------------|
| Joint Developments                   | Innovation Net              |
| National Laboratories                | Smart Learning Reports       |
| Technology Acquisition Group         | Communities of Practice     |
| Complementary Technology Innovations | Global Technology Council   |
| Critical Supplier Partnerships       | Corporate Innovation Fund   |
| Endorsements                         |                             |
| Patent/IP Licensing & Donation       |                             |
| University Research Fellow Program   |                             |

The group TAG has become a primary portal for soliciting external technologies and allowed inventors to submit their ideas for evaluation, supporting this way the new approach that P&G had for licensing technology. The strategy was to improve the innovation process and turn it into a much simpler approach: license all technology at the latest three years after market introduction or five years after patent approval [17].

4. Conclusion

In a very official manner the company stated that has gone from being „protective” with its technology resources to being „proactive” with the clear intention to open the door to see their innovation in the marketplace, not only in their products. The purpose was to generate revenue for their stakeholders and any type of collaboration, from selling, donating, trading with suppliers was taken into account [17]. A good example to understand the change in the company’s approach, that will create the right environment for great product innovation, is to look at the new strategy based on licensing. As Sakkab mentioned [17], previously the company had been under the negative impact of the Cold War when no type of collaboration was happening. Starting the year 2000 P&G representative declares „will sell, donate, swap or collaborate with suppliers for capital avoidance, or trade for lower pricing” as long as it can be measured and also produce value for all stakeholders. The present paper looks at key decisions taken by Procter & Gamble related to the innovation approach with the purpose to show the importance of the mentality and internal efforts of all organization members. It look like the open innovation direction came from top – down creating tools such as TAG or InnovationNet, the latter one allowing P&G researchers to connect with thousands of innovators across the globe and exchange information on latest novelty. Part two of the present study will look into the features and impact of Connect & Develop platform on new product development inside P&G. The goal of this case study was to emphasize all the initiatives that supported innovation and even earlier – the general interest for consumer delight which subsequently became conversion for profit. The limitations of the present study are related to the qualitative approach taken that doesn’t allow statistical inference. A series of other such analysis would be necessary to see whether companies with successful products fall under the same approach.

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