The beauty industry

Main worldwide players in sales\(^{(1)}\) (in billions of USD)

<table>
<thead>
<tr>
<th>Company</th>
<th>Sales (billion USD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>L’Oréal</td>
<td>33.43</td>
</tr>
<tr>
<td>Unilever(^{(2)})</td>
<td>22.49</td>
</tr>
<tr>
<td>Estée Lauder(^{(4)})</td>
<td>15.90</td>
</tr>
<tr>
<td>Procter &amp; Gamble(^{(4)})</td>
<td>13.90</td>
</tr>
<tr>
<td>Shiseido(^{(4)})</td>
<td>10.09</td>
</tr>
<tr>
<td>Coty(^{(4)})</td>
<td>8.65</td>
</tr>
</tbody>
</table>

\(^{(1)}\) Source: WWD, Beauty’s Top 100, May 2020, based on 2019 sales. \(^{(2)}\) Source: L’Oréal estimates for the global cosmetics market in 2020 based on manufacturers’ net prices. Excluding soap, toothpastes, razors and blades. Excluding currency effects. \(^{(3)}\) Excluding Argentina. \(^{(4)}\) Estimated cosmetics sales according to WWD.
### L’Oreal: some figures

<table>
<thead>
<tr>
<th>1st</th>
<th>500</th>
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<tbody>
<tr>
<td>cosmetics Group</td>
<td>patents registered</td>
</tr>
<tr>
<td>worldwide</td>
<td>in 2020</td>
</tr>
<tr>
<td>85,400</td>
<td>employees</td>
</tr>
<tr>
<td>27.99</td>
<td>billion euros of sales in 2020</td>
</tr>
<tr>
<td>35</td>
<td>brands</td>
</tr>
<tr>
<td>5.20</td>
<td>billion euros in operating profit</td>
</tr>
<tr>
<td>150</td>
<td>countries</td>
</tr>
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</table>
L’Oréal and Nestlé: blu ocean strategy through joint venture

Inneov combines the expertise in nutrition and food security of Nestlé R&D and dermatological knowledge of L’Oréal R&D.

Nestlé & Inneov: Nestlé R&D provides to Inneov Laboratories its unique expertise to select components, to optimize their absorption and verify the quality of safety and conservation.

L’Oréal & Inneov: L’Oréal R&D provides to Inneove labs its knowledge of the physiology of cutis and its experience in monitoring the effects of the components on the skin.
In addition, there were many intra-industry acquisitions, in particular overvalued sectors (e.g., internet or telecom) purchasing undervalued firms with hard assets (Rhodes-Kropf and Viswanatha, 2004); but there was even an increasing percentage of deals between companies belonging to the same or related industry (Andrade, Mitchell and Stafford, 2001).

Another difference with the previous wave is the lower percentage of hostile takeovers (Andrade, Mitchell and Stafford, 2001). As effect of the increasing globalisation, a significant portion of deals were cross-border transactions with Europe and Asia (Martynova and Renneboog, 2008).

It ended due to the Internet bubble that caused a recession in U.S. and a weak ending in the global growth.

2.2.1.6. Sixth wave: The Rebirth of Leverage (2003-2008)

The short but intense sixth wave continued the trends initiated in the previous wave towards consolidation and globalisation (Martynova and Renneboog, 2008). Furthermore, the role of Private Equity firms increased in importance (Gell, Kengelbach and Roos, 2008).

The recovery from the 2000 crisis contributed to the wave propagation. The wave was characterized by many LBOs and pool of debt of varying level of risk. It is not surprising that it ended with the financial crisis (DePamphilis, 2015).
In una prospettiva di open innovation, vi aspettate che le operazioni di M&A impattino positivamente sull'output innovativo? (1 minuto)
M&A e open innovation - 2

In che direzione si muoveranno gli sforzi tecnologici post M&A? (es. stessa traiettoria tecnologica, esplorazione nuovi spazi tecnologici...) (5 minuti)
The technological acquisitions paradox in the beauty industry

Acquired knowledge

<table>
<thead>
<tr>
<th>Target</th>
<th>Year of acquisition</th>
<th>Targets’ patents # Cited patents</th>
<th># Tech. classes</th>
<th>Acquired knowledge</th>
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<td></td>
<td></td>
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<td>Similar</td>
</tr>
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<td></td>
<td></td>
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<td>Complementary</td>
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<tr>
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<td>TOTAL</td>
<td>91</td>
<td>137</td>
<td>94</td>
<td>43</td>
</tr>
<tr>
<td></td>
<td></td>
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<td></td>
<td>11</td>
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</table>

Note(s): The sum of technological classes covered by the patents of the acquired firms (at the seven-digit level) is larger than 137, since a patent can refer to different technologies and the same technology might be included in different patents. Moreover, the same acquired technologies, which are unrelated in a given acquisition, might be classified as similar or related in successive acquisitions when they are effectively used to expand the breadth of L’Oréal’s technological portfolio. This explains why the sum of similar, complementary and unrelated technologies is not equal to the total.
Developed knowledge

<table>
<thead>
<tr>
<th>Target</th>
<th>Year of acquisition</th>
<th>L’Oréal citing patents</th>
<th>Developed knowledge</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td># Citing patents</td>
<td># Tech. classes</td>
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<tr>
<td>BIOThERM</td>
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<td>SKINCEUTICAL</td>
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<td>6</td>
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<tr>
<td>The BODY SHOP</td>
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<td>YSL BEAUTE</td>
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<tr>
<td>COLORIGHT</td>
<td>2014</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td>466</td>
<td>170</td>
</tr>
</tbody>
</table>

Note(s): The sum of technological classes covered by citing patents (at the seven-digit level) is larger than 170 since in multiple cases patents refer to the same technological class

Table 2. Characteristics of the developed knowledge
Comparing acquired vs. developed knowledge

The analysis reveals that L’Oreal mainly used the external knowledge it acquired from technological acquisitions to intensify the specialization of its own knowledge base.

Table 3 shows that the knowledge recombination process involved mainly acquired knowledge that was similar to the company’s existing knowledge and was used to develop knowledge that was also similar (82.13% of cases).
Lessons learned

**Proposition 1.** Technological acquisitions enable companies to increase their technological specialization through a recombination process that exploits similar or complementary knowledge from the target.

**Proposition 2.** Even if technological acquisitions enable companies to adopt a technological diversification trajectory through a recombination process that exploits complementary or unrelated knowledge from the target, the acquirer tends to use the acquired knowledge for reinforcing its specialization.

**Proposition 3.** Radical innovations can derive from the close knowledge recombination, paradox and not necessarily coming from the exploration of distant knowledge through acquisitions.
A proposed taxonomy of knowledge recombination through technological acquisitions

Proposition 3. Radical innovations can derive from the close knowledge recombination, and not necessarily coming from the exploration of distant knowledge through acquisitions.

Overall, our analysis shows that L'Oréal's innovation strategy was strongly path dependent. L'Oréal did not use the open innovation approach to explore new knowledge domains. Rather, it engaged in repeated acquisitions to develop its existing technological trajectory through the realization of incremental innovations that have strengthened its technological specialization. This trajectory aligns with Hargadon's (2003) argument that innovators rarely come up with completely novel ideas; instead, they recombine old ideas into new ones, adapting them from one context to another. This is supported by the fact that in some cases, L'Oréal used similar knowledge acquired from the target to develop unrelated knowledge, which suggests that a high level of specialization is required for innovation in more distant domains. Since its first patent, for a hair dye formula containing a blend of harmless chemical compounds, which was filed on the 24th March 1908 by the company's founder, the French chemist Eugène Schueller, L'Oréal linked the company's growth with the development of the global "market of beauty." Its strong innovation strategy enabled the company to become the undisputed "queen" of the beauty industry.

Our empirical evidence shows that in large organizations, invention is still the result of a long accumulation process, predominantly based on the recombination of existing knowledge owned by the organization for new uses and applications. As Schoenmakers and Duysters (2010) emphasized, recombining existing knowledge can lead to very important innovations and sometimes to new knowledge related to an entirely new domain. An emblematic case is that of hair dyeing shampoo, which combines competences in shampoo production and hair dye production.

To sum up our evidence and open a discussion on the effects of technological acquisitions on the innovation trajectories of firms, we propose a taxonomy of knowledge recombination, shown in Figure 3.

Four innovation trajectories can be identified: (1) pure specialization, (2) recombinant specialization, (3) related diversification and (4) pure diversification. The first trajectory pertains to companies seeking to exploit their core competences and reinforce their competitive advantage as leaders in the market through the acquisition of companies with similar knowledge. The second is typical of companies that are engaged in innovative related diversification.