



Case Study/ SSSilent Hair Dryer

A story on how ingenuity led to a disruptive innovation

The power of asking “What If” to trigger innovative projects. It happened in a hair salon in Pamplona Spain. Soon after spending a considerable amount of money in a sound system for the salon, the owners realised they had just thrown away the money. Right after the hair dryers switched on, the music drowned into the motor sound.

- “What if the hair dryer was quiet?”

The lack of technical knowledge allowed them to propose an idea that a mechanical engineer would have never considered. This gave birth to a design opportunity that triggered an innovative project. Eight years after this “crazy” idea the first functional prototype was installed in a professional salon.

The first step towards the answer is to reframe the question.



David Kelley, founder of IDEO.

The problem statement was apparently clear: Hair dryers are too noisy.

- “What if the hair dryer was quiet?”

The entrepreneurs started experimenting and prototyping rough solutions trying to unsuccessfully hide the product noise. A few months later they approached a R&D Center looking for help. The engineers working in the project easily understood the difficulties of designing a new system to boost air flow in such a small device as a hair dryer. So, they tackled the problem in a very linear way (problem - solution), reasoning as follows

If the noise source is the motor (problem), let's build a system very similar to the air conditioning, propelling air from a big centrifugal fan that will be hidden in a separate room of the saloon, to a straight roof duct from which to unhang “hoses” in each client position (solution).

Although the idea seemed appropriate they did not consider many crucial factors that had direct impact in both the product and the business model.

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When we stepped into the project in charge of the design and development of the product, we rapidly jumped out from computer into the field and conducted a deep research.

Involving the users. We did a qualitative and quantitative research with professional hairdressers asking them about their problems, needs and key features in the product. Soon we discovered that even if the noise was relevant, the **weight** was the cause of 85% of professionals suffering at least one sick leave during their careers.

Studying the product and the context. On field research is truly valuable to validate or dismiss initial hypothesis. Here we took apart the project assumption that most saloons sit their clients in a row and count with an adjacent room where to hide the fan. None of these premises turned out to be true.

Providing the business model. The product requirements shifted from focusing only on noise emission to also weight and new extra features. Furthermore, the variety of saloons distributions nullified the initial "air conditioning" system concept. *Designing a custom installation for each business would have been unaffordable.*

Desirability + Feasibility + Viability



Detail of the Centrifugal Fan used in early prototypes.

Research showed that most salon owners usually rented the space, this imposed the possibility to easily install, remove and transport the product from one space to another. **All this new key insights pointed towards pivoting from the initial "system" idea to a mono hair dryer solution.** The initial question urged to be reframed into a wider challenge:

- "How might we improve the Hair Dryer for professional users so that they perform more comfortably?" -

Involving the users, clients and study the market ecosystem is vital when developing innovative projects. It is the only way to frame a meaningful value proposition that might have an opportunity for success. The risk of not doing so is huge. Big sums of time and resources risk of being wrongly invested.

WE REVOLUTIONIZED THE HAIR DRYER BY INTEGRATING PROFESSIONAL USER'S NEEDS INTO A NEW PRODUCT CONCEPT:
WE CREATED THE MULTIFUNCTIONAL WORKSTATION.

● **Noise.**

This new product architecture allowed to isolate the motor on the main body reducing emitted decibels up to 16 dB; in benefit of both the hairdresser and the client. The saloon becomes a much more peaceful and relaxed environment.

● **Weight.**

Hairdressers ranked product weight as the main feature to be improved in existing hair dryers. Our design has virtually "zero" weight because all major components are placed in the main body that hangs from the ceiling. Its use becomes extremely natural.

● **Performance.**

Existing drying solutions internal components suffer a lot due to its restricted dimensions. We employed a bigger turbine that propels about X4 times more airflow than the best hair dryers in the market.

● **Reliability.**

Both the fan and the resistor are overdimensioned and guarantee a long lasting life and performance. Nowadays professional hair dryers have an average life of 1,5 years due to the lack of maintenance and short component's lifespan.



Only silence perfects silence. 

A.R. AMMONS

WE HELPED SSSILENT SOLUTIONS GAINING A HOLISTIC VIEW OF THE PROBLEM, RE-ORIENT THE SOLUTION TOWARDS A MORE INNOVATIVE CONCEPT AND INTEGRATE THE IDENTIFIED USER'S NEEDS INTO A TECHNICALLY FEASIBLE PRODUCT FRAMED IN A VIABLE BUSINESS MODEL.

