



Value Proposition



Benchling



Description of the product

The proposed product of our project is a bacterial strain, engineered to produce a UV filter compound, hipposudoric acid, that is naturally occurring in the sweat of the hippotamus (3).

Description of key terms

Gains refers to the features of sunscreens that consumers would like to have because these features increase a value a sunscreen can bring to them. **Pains** refers to the features of sunscreen that consumers do not want to have because these features make sunscreen less valuable for them. **Gain creators** are the features of HippoSol that might allow consumers to get desired features. **Pain relievers** refers to features of HippoSol that help consumers to avoid exposure to unwanted factors.

Proposed consumers

Our product is mainly targeted towards current producers of natural sun care that might want to make their products more environmentally friendly and towards consumers of natural sun care. The product can also be of interest to researchers that want to develop other useful compounds derived from Hipposudoric acid or to modify as well as to alter the bacterial system producing hipposudoric acid.

The benefits to consumer

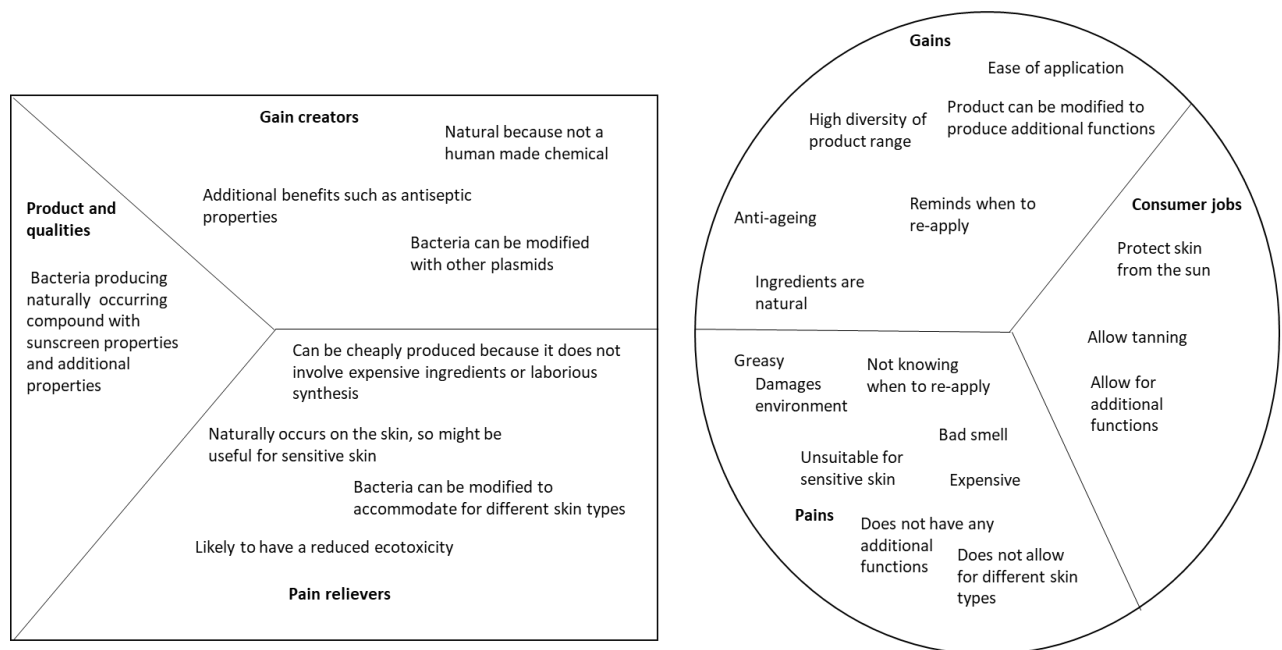


Figure 1. *Value proposition of HippoSol.* Data was obtained from ((1) and(2)).

Figure 1 describes how HippoSol can address some of the main **pains** and **gains** that consumers experience then using sunscreen.

The main gain creators

The main benefits of our product are its natural origin and its additional benefits (e.g. insect repulsion, antiseptic activity). As it was observed 75 % of respondents expressed interest in sun care with natural ingredients(1).Hence, our product might appeal to consumers that natural ingredients. As it was noted, many consumers are after additional benefits in sun care such as being lightweight (1). Hence, our sun care might be appealing to consumers looking for extra benefits.

The main pain relievers

The main pain relievers of our product are its potential ease of modification of bacteria producing hipposudoric acid and its limited ecotoxicity. As it was observed 29 % of respondents were interested in eco-friendly sun care products (4). Hence, an eco-friendliness of our product might be appealing to consumers. As it was observed 14 % of respondents considered an ability to have sun care suitable for different shades the most important (2). By modifying our bacteria, we can produce UV filter that are suitable for different skin shades.

References

- 1.Mintel, S., ROMANOWSKI,2015. *Brands try to increase sunscreen usage by adding more benefits*. Available at:
[s://reports.mintel.com/display/736543/?fromSearch=%3FcontentType%3DInsight%26freetext%3Dsunscreen](https://reports.mintel.com/display/736543/?fromSearch=%3FcontentType%3DInsight%26freetext%3Dsunscreen) (Last Access:24/10/2020).
 - 2.Mintel, A., FISHER, 2017. *Sun care UK*. Available at:
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 - 3.SAIKAWA, Y., HASHIMOTO, K., NAKATA, M., YOSHIHARA, M., NAGAI, K., IDA, M. & KOMIYA, T. 2004. Pigment chemistry: The red sweat of the hippopotamus. *Nature*, 429, 363-363.
 4. Mintel., S.,DOVER , 2019, *Suncare UK December*. (Last Access:24/10/2020)
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