Royal HaskoningDHV
Enhancing Society Together

Baby formula factory for new market: Feasibility study reduces business risk

Case

Start >

With the ambition of being a pioneer in the market, our client was interested in exploring the baby formula industry in the region of West Africa. Royal HaskoningDHV's business case team provided support by investigating the market potential to ensure this ambition could be translated into a feasible business opportunity. The result of our in-depth studies guided our client to a phased project execution strategy, preparing the company to acquire a 30% market share over a 5-year period.

The challenge

Our client had identified an opportunity in the market where most baby formula products are imported. Demand for these products was increasing due to population growth and the fact that more and more women were entering the workforce and interested in buying affordable convenient-food products to feed their families. Before investing in this opportunity, our client wanted to develop a feasible strategy for entering the market that took account of the risks and provided a good business return on investment.

Starting from the market

To confirm the market opportunity, Royal HaskoningDHV conducted in-depth market research. We cross-referenced recent growth data for this product group with population increase, demographic distribution and other macro-economic data. The result confirmed there was an interesting market opportunity for locally produced, more economically priced baby formula.

GDP growth in the target market was relatively low and yet the inflation rate was rather high. This adversely impacted foreign exchange rates, making imported products more expensive.

Based on these findings, we projected a market share and growth rate of this product. Using this projection, we estimated the production capacity needed in the factory and developed a technical concept for the facility. We also proposed a phased market entry strategy based on projected growth rate and market share acquisition to ensure the investment is made at the right time. The market was dominated by imported foreign brands, so achieving market penetration is critical to establish the new product. To minimise risk, we recommended to initially import client-branded end product from a thirdparty supplier. This is a less capital intensive solution – since the only investment needed is a warehouse – but quite versatile since it provides the opportunity to introduce the brand to the market and set up distribution channels. Once a certain market share is achieved, the investment needed to build a factory would be triggered.

Technical feasibility aspect

Starting with the expected capacity needed in the factory, we investigated aspects of technical feasibility. Raw material sourcing possibilities, choice of processing technology, optimum process flow, site masterplan, stock norm, labour and utilities requirements, as well as distribution channels were studied to understand the circumstances under which the factory will operate.

We explored a two-phase greenfield factory investment. Starting with a simpler process flow of mixing and packaging, the business has the time it needs to establish the finished goods distribution and train staff on this manufacturing process. When everything is in place and a certain sales volume is reached, a product processing plant will be added to the factory, making it able to source and convert some of the raw materials locally.

To help our client in the start-up phase, we looked into possible suppliers of raw material, packaging material, and processing equipment. This was necessary because this market is entirely new for the client and their ambition is to maintain international standards. We obtained quotations from the suppliers, which were used as a basis for the financial model. Additionally, we advised on when a certain expert or local stakeholder should be involved in the project.

Rationalising the investment

An estimate of investment required was calculated by combining quotations from the suppliers and incorporating regional knowledge of civil works and utilities equipment costs from our in-house quantity surveyors. To justify the investment, we developed a financial model to show the projected cash flow and calculated figures such as NPV, IRR, EBITDA, and ROI. The model takes into account the investment needed, operational expenditures, and sales income.

The business startup phase shows a positive business case. Even though the costs of setup and brand development are high, this step is very important to familiarise consumers with the product. Regarding the two phases of factory build, we identified that expanding the factory to include a product processing facility is less interesting than continuing to operate the simpler blending and packaging technology. This was counter intuitive as it was expected the locally sourced raw materials would be substantially lower cost than imported equivalents and the difference would easily justify the additional capital investment. However, within the 15 years projected period, the additional investment of 20 million US dollars needed for phase two decreases the IRR by 15% and extends the payback time by two years. Limiting the process to blending and packaging shows much more interesting figures with IRR of 40% and payback in approximately 5 years.

The decision

Our study demonstrates that the investment to market and manufacture a range of baby formula products results in a positive business case. The phasing strategy reduces the business risk while ensuring that the opportunity is captured by investing in a timely manner. The initial approach to install a product processing plant in the facility shows a counter-intuitive result. It was expected that by sourcing the raw material locally, the business will be more profitable, but as it turns out, the investment needed to process the locally sourced raw material is not covered by the marginal savings.

The study helped management in their strategic decision-making to deliver a higher IRR and a shorter pay-back time. It was concluded that the best way for the client to proceed is to start with the importing business for brand penetration, and to establish a blending and packaging factory once the threshold market share set out in the phasing framework is achieved.

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Would you like to know more about FMCG Business Case Consultancy? Our white paper draws on our experience to explore how organisations are making investment decisions and how they can optimise the process.

Download the white paper by clicking on the link:
How are manufacturers making investment decisions in fast-changing FMCG markets?