Product platform considerations on a project that develops sustainable low-cost housing for townships - DTU Orbit (30/03/2019)

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Construction companies in Denmark are often working with profit margins as little as 1-3% in situations where they deliver high-end buildings to the local market. Even though customers are willing to pay a premium price for high quality, construction companies earn very little on their products. Consequently one Danish company took the decision to produce sustainable low-cost houses and to sell them to development countries that have township housing programs. Why does this company believe in still making profit in the low-cost housing segment abroad, when there is almost no profit in the high-end segment at home? As the research described in this article shows there are three main reasons for their optimism: 1) The successful introduction of a product platform for low-cost houses, 2) a modular approach to the design of low-cost houses, and 3) the application of requirements management as described by INCOSE. 1) to 3) have been studied using action research on a case project.

The case company’s success in their endeavor contributes to people currently living without decent housing getting insulated low-cost houses based on the latest technology. The fact that those low-cost houses are solid gives their new owners the possibility to take a loan in their building which is expected to contribute to more businesses being started up and thereby strengthening the domestic economy. As a consequence of this, additional research is needed in how to further optimize the economy of sustainable low-cost housing based on life cycle considerations. Moreover it has to be examined how the gained experience can support in maximizing the high-end segment in countries like Denmark?

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