Mandalay Homes: Leading in Green House

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Individual Assignment 1

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Executive Summary

Mandalay Homes is a sustainable residential construction company in Arizona that prioritizes green home energy efficiency and eco-friendly construction. The company has established a solid reputation in the industry and is constantly seeking opportunities for expansion. Through the company's commitment to sustainability and renewability, the company has successfully created a valuable brand that resonates with the public. Despite its successes, the company still faces weakness in certain areas and must continue to navigate the challenges of the market to remain competitive. To achieve this, Mandalay should prioritize resource management to standardize the way of gaining resources and leverage technology development along with gain certifications continuously.

Meanwhile, seeking regulatory support can also enable a smoother certification process, reduce costs, provide technical assistance, and encourage building code standards to align with performance-based standards. Additionally, Mandalay should balance the cost of technical innovations with market expansion capital to ensure it remains ahead of its competitors while continuing to make progress in the direction of sustainability and utilize the efficient resource.

Introduction

Mandalay Homes is a fast-growing green building construction company located in the Arizona region, pursuing home energy efficiency and environmental-friendly constructions. The company has made substantial advancements in sustainable building and addressing long-term emissions concerns. Due to the increasing tensions in the construction sector, the company is venturing into uncharted territories and searching for alternatives to its limitations in order to elevate the company to a new level. This report will illustrate the priorities for the company's growing frontiers with further actions and sort out the path forward.

Background and Business Model

The construction industry in the U.S. has caused severe environmental impacts due to consumption, operation wastes, and disposal, which highlights the demand for innovative green buildings. Since the early 1970s, the government has taken an effort on focusing energy efficiency and establishing standards for green buildings with control such as LEED certification implementation (Hoffman, 2022). The idea of greenhouses has then drawn the attention of customers and gradually gaining popularity.

As a homebuilder started in 1999, Mandalay Homes has received wide recognition for its efforts in energy-efficient buildings, both interior and exterior, and lumber waste reduction (Hoffman, 2022). The company now focuses on customer segments with retirees, young families, and work remotely professionals (Hoffman, 2022). Mandalay was able to educate customers about the environmental effects that occurred during the

process of construction which catches the attention of the public on environmental issues (Hoffman, 2022). To generate further value for the company, Mosaic joined Mandalay Homes to enhance the construction of homes by using software for design, scheduling, and cost monitoring, offering home buyers more choices while still maintaining a competitive cost (Hoffman, 2022).

The company has also presented numerous growth opportunities. Mandalay has strong strength in the application of material and indoor air quality improvement (Hoffman, 2022). Meanwhile, by possibly collaborating with the government and institutions, the company is exploring methods to facilitate the process of meeting building code requirements and seeking ways to reduce the cost. Partnership with Mosaic will also serve as a competitive advantage by providing strong support for exploring new opportunities, for instance, commercial building constructions and technological innovations.

On the other hand, Mandalay is likely to be affected by the existing weakness and increased rivalry threats. For instance, one of the competitors LivingHomes is ahead of the industry, and it is the first ever to receive a LEED Home Platinum certification, especially on Modular homes which Mandalay is yet to explore (Auston, 2022). Also, Mandalay had not set a standard for sourcing sustainable suppliers and applied an exhaustive comparison method for selecting materials, supplies, and transportation (Hoffman, 2022). Apart from regular building construction companies, new competitors keep entering the market with innovative technologies, so Mandalay must adapt and improve to stay competitive.

‘New Frontiers’ Analysis

To enhance the value of Mandalay Home and address issues, the company could concentrate its efforts on three key frontiers but prioritize resource management and distributed energy resources frontier, in combination with technology innovations.

The resource management frontier aims to provide alternatives for resource management and improve supplier standards. According to the case, Mandalay has managed the issues regarding electrical power overload by adopting distributed energy resources (DERs) such as solar storage to reduce operating emissions and costs, and the recommended next step on resources distribution could be acquiring connected communities (CCs) which could provide better experiences for customers. Since Mandalay has not built supplier sourcing standards, the company can look to the models of other successful companies for references. The company's supplier selection process aims to minimize supply chain risks and optimize material profits by determining effective criteria and implementing practical (Harasymiuk & Barski, 2017). There are examples among industries that applied standards based on environmental concerns in addition to cost reduction. For example, a construction company Skanska has established a "Green Procurement" standard (see Figure 1) which mandates suppliers to follow specific environmental and social criteria, including supplier assessment and data collection. The absence of standardization of resources is crucial and will impede the company's growth, therefore it should be prioritized.

While dedicating efforts to managing and distributing resources, the company should remain vigilant and continuously adopt new technologies to stay competitive.

Mandalay Home could seek other paths to leading sustainable buildings. As company such as Livinghome appears to have a comparative advantage in achieving LEED certification, it may be beneficial for Mandalay to explore alternative sustainability certifications, including the Living Building Challenge (LBC), to differentiate themselves in the market while achieving required LEED certifications. Apart from the technical partnership with Mosaic, Mandalay could integrate 3D printing technology into the construction process to create unique homes (Hoffman, 2022), as well as plan to expand eco-friendly and regenerative built homes that could serve the needs of socially responsible consumers and reduce waste.

Although it's important to prioritize the two frontiers mentioned above, Mandalay should also consider how government partnerships can potentially smooth out the process of innovations. There are two methods of following building code including prescriptive methods that need to follow specific regulations and performance-driven methods that focus on achieving certifications for specific efficiency and sustainability goals, in addition to fulfilling the minimum building code requirement (Hoffman, 2022). By following regulations, the company has earned major green building certifications (Hoffman, 2022) but the codes may slow the pace of construction and result in higher costs. Therefore, appropriate actions could consider improving this situation.

Regulator Partnerships

To advance building code standards in the case of Mandalay home, collaborating with the government can reduce costs and accelerate company development. The

government is offering financial support and subsidies in order to stimulate sustainable construction practices. The incentives policies might help to offset the generated high cost that occurs in green building construction and also earn the market advantages. For example, the U.S. government offers commercial buildings energy efficiency tax reductions which encourage the construction of the energy-efficient commercial building (Energy.gov, 2023). As a future step of Mandalay, the company will be benefited from the policies and will indirectly gain more opportunities to improve construction practices based on building codes while still meeting the same efficiency standards as performed-based building codes.

Additionally, government partnerships might help to reduce the gap in building code by assisting in searching for alternative solutions for efficient green buildings. Environmental Protection Agency (EPA) is one of the state agencies that aim to protect both human health and the environment (EPA, 2023). It has introduced programs including the green building program and Energy Star that help the company to standardize its energy use and find a way to improve as well as acquire current sustainable building codes (Hoffman, 2022). EPA also offers sponsor partnership for businesses to resolve environmental concerns such as solid waste reused and conserving water and waste, and also claim to share information transparently and make progress along with partners (EPA, 2023). More importantly as a partner, EPA‘s technical support centers provide a wild range of scientific and engineering expertise support (EPA, 2023). With technical support, Mandalay Home is able to test and refine new codes and alternatives on sustainability and green concepts, and could be used to

assist higher building code standards to align with performance-based standards.

Future Direction

Mandalay Home should be searching for a path to expanding the market and as previously mentioned in the next step of Mandalay's exploration, keeping innovation is an essential way to stay competitive. However, further innovation in technology may require high costs and time consumption that could slow down or restrict a capitalized expansion. The company has yet to explore one of the profitable fields-commercial sustainable buildings, but consistent spending on technology may leave them without the specific policy help necessary to reduce taxes and increase cash flow, which in turn may hinder their ability to invest in this sector. Nevertheless, the company can continuously strive to earn certifications that reflect environmental performance so can attract investors, and increase cash flow (Leskinen et al., 2020). Therefore, a relatively conventional but efficient way to expand the company scale at the current stage would be continuously partner with Mosaic for technology innovation within the scope of competence and gradually explore possible expansion opportunities.

Summary

Mandalay Home has large potential on improving its current position and seeking assistance to achieve better performance in sustainability construction industry. By partnership with difference sectors, it may result in a win-win situation in the long-run and accelerate the process to achieve standardize high-efficient buildings.

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Appendix A: Figure 1

Skanska Sustainable Procurement Content

Figure1: https://www.skanska.co.uk/4ae882/siteassets/about-skanska/supply-chain/skanska-sustainable-procurement.pdf