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BUSINESS CASE STUDY
PORTABLE HEMP DECORTICATOR

Prepared by:



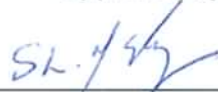
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EXECUTIVE SUMMARY

This Business Case Study assesses Emerson Hemp Distribution Company's (EHDC) business operations using traditional and existing agricultural farm equipment to supply the Equine and Bio-nesting markets with bagged fibres and hurd and high compacted bales, respectively. The focus of this study is to determine EHDC's current operational profitability and, in the future, what direction should EHDC take to increase its operational sustainability.

EHDC has developed a bale unrolling, cutting and separation system to produce the necessary end product for defined markets. This process was developed as an initial phase with the ultimate goal to produce clean, undamaged fibres for higher value markets with co-products being used for secondary markets as identified by this project. This business supports environmental goals of 'green' advancements (reducing burning of undesirable hemp straw), total crop utilization for hemp farmers, and a new method of processing hemp straw into hurd and fibre supporting a relatively new market demand in two sectors. EHDC has been on the leading edge of this new process and plans to further standardize and streamline their operations as well as capitalize on these market opportunities.

In order to perform this business assessment several assumptions were made pertaining to the current market demand, raw stock supply and operational segments (location, equipment, portability, and personnel). An operation efficiency and safety assessment was also conducted by an experienced agricultural engineer. These assumptions were used to establish the financial position and to model the relationships between core business elements through a cost, volume and profit analysis.

Annual forecasted revenue was estimated based on capturing two defined markets; the Equine Market's demand for totes, and the Bio-nesting Market's demand for high compacted bales. The cost of operations was estimated through an assessment of the cost of goods sold (COGS) which included labour (direct and in-direct), employee benefits, fuel costs, and baled hemp fibre and, general and administration expenses, which consisted of professional fees, office expenses, equipment and location payments, amortization, maintenance and insurance premiums.

Based on the assessment it was determined that EHDC's current operations are profitable; however, the net profit is not substantial enough to produce sufficient reserves to account for large unforeseen expenses such as equipment breakdown and/or refurbishment. The delivery cost of hemp bales to the processing site was noted as a concern as the process becomes cost prohibitive as the shipping distance increases.

A cost/profit/volume analysis was performed to assess the break even point of the operation. The results indicated that operational throughput required to surpass EHDC's fixed operating expenses involved operating more than 15 productive days per month processing in a 7.5 hour day. Based on standard operations of EHDC, processing surpasses the breakeven point of sales producing a net profit.

To increase commercial viability, it is suggested that a focus be put on developing higher quality fibre products for composite material or other applications that will enable EHDC to increase its return on investment in a shorter time period and cover deficiencies in cash flows during times of non-productive operations or expensive equipment failures. Increases in selling prices and volume throughput have a large influence on economic viability and these parameters should be carefully considered when establishing the market. In addition, inexpensive process alterations could reduce the labour component and improve the equipment's longevity and safety.

A cost analysis was conducted to determine the viability of moving the equipment for processing in other areas. It was determined that moving the equipment was possible; however, it will be expensive and difficult to coordinate due to availability of suitable transportation. This suggested that the equipment, in its current form, is not essentially 'Mobile' but having a 'Portable' description would be more apt.

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