

ASSESS COMMERCIALIZATION FEASIBILITY OF ALGAE-BASED BIO-FUEL WITH DASHBOARD AND SCORECARD TECHNOLOGIES

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ABSTRACT

The growing energy demand, depleting energy supplies and increasing environmental pollution has motivated researchers across the globe to look for alternative energy sources. Various energy sources have been identified but none of them have the capability of realistically replacing the fossil fuels and meeting the current demand. Algae based bio-fuels give some hope but producing them at large scale is a challenge which needs to be overcome.

The underlying objective of this research project is two folds. Firstly, the project aims to assist with the commercialization of algae based bio-fuels by developing Dashboard based and Balanced Scorecard based monitoring prototypes. These prototypes were developed based on the strategic map developed for the case organization. The strategic map, which was developed after carefully studying the production methods available and identifying the factors which have considerable impact on cost and production volume, provides details about strategies, perspectives, objectives and the categorization and linkage of influential factors.

The second objective is to assess the efficiency, effectiveness and usability of the proposed systems. Three hypotheses were formulated addressing the core research question. The outcomes of the hypotheses testing suggest that both the prototype Performance Management and Measurement systems, namely Dashboard and Balanced Scorecard, were successful in communicating the companies goals, providing easy guided analysis and had almost equal user involvement, efficiency and usability.