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Decision Model to support the implementation of LARG management practices

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Name (Arial 15)

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Objectives

- To study the dependencies between lean, agile, resilient and green (LARG) supply chain management (SCM) practices, the influence of contextual factors on LARG SCM practices' selection and their impact on organizations' competitive advantage, the impact of LARG SCM practices on organizations' competitive advantage and the influence that the competitive advantage has on the selection of SCM practices.
- To develop a model that allows organizations to select the best combination of management practices to achieve higher added value by reducing waste, responding quickly to market changes without increasing the environmental impact of its processes in order to increase their competitive advantage.
- To test and validate the model by applying a questionnaire in companies.

Figure 1. Conceptual framework.

Methodology

- A research was developed in order to collect lean, agile, resilient and green management practices.
- A conceptual framework was developed to translate the links between the contextual factors, LARG SCM practices and competitive priorities (Fig. 1 and 2).
- A decision model support the implementation of LARG management practices is going to be developed.
- Research questions and hypothesis are being drawn based on the conceptual framework and will support the elaboration of a questionnaire (Fig 3.).
- A questionnaire is being developed to be applied in Portuguese companies belonging to the industrial sector.

Figure 2. LARG SCM relationships.

RQ1: To what extend the lean management strategy will contribute to build agile organizations?

RQ2: To what extent the combination of lean and resilient management strategies will contribute to less vulnerable organizations to disruption conditions while maintaining their lean characteristics?

RQ3: To what extent the lean management strategy will contribute to build greener organizations?

RQ4: To what extent the agile management strategy will contribute to build resilient organizations?

RQ5: To what extent the combination of resilient and green management strategies will contribute to less vulnerable organizations to disruption conditions while minimizing their environmental impact?

Figure 3. Research questions.

Expected Results

- This research is expected to provide a decision model that allows organizations to select and implement the LARG SCM practices and thus, implement the appropriated management strategies to achieve their competitive priorities.
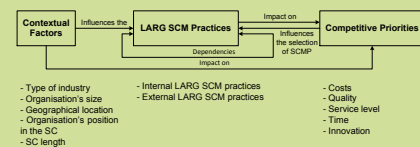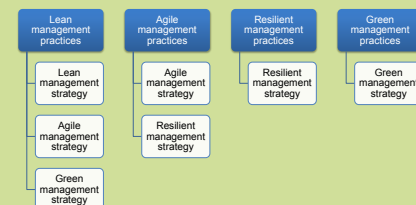- The questionnaire and the respective statistical analysis of the answers will allow to test and validate research hypothesis as well as the decision model.