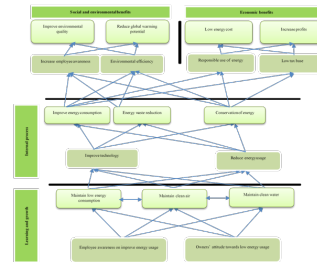


## An analysis of barriers for minimizing embedded energy in the construction materials

**Sampath P Dayaratne** and **G H Samadhi Wickremathillake**  
Ace Property and Business Consultants, Sri Lanka

Rapid increase of population, consumer demand increased. As a result, production has increased to meet the consumer demand while operate in the competitive market. At the production stage of brick manufacturing, it is a requirement SMEs to consider the impact to the environment. It is necessary to protect the natural environment for the purpose of organism preservation and conservation. Therefore, it is essential to accelerate transition to generate long term dramatic carbon footprint mitigation measures during production process through the control of embodied energy which is a determining factor. Small and Medium Scale Enterprises have still not considered significance of reduction of usage of energy. Researchers identified consumption of energy being largely associated with the manufacturing process, reduction of embedded energy and emissions are extraordinarily connected to productivity of kW/H of energy consumption. In order to carry out research goal of implementing barriers of reduction of embedded energy usage in bricks, responses to thirty-five questionnaires were collected from brick manufacturing SMEs registered under the Ministry of Industry and Commerce, Sri Lanka. Five unstructured interviews were conducted with relevant professionals in order to ascertain their opinion. These findings can be used as residue of the research process for the development of reduction of embodied energy consumption during production process. Implementation model of embodied

energy usage minimizing which is based on the balance scorecard framework to acceleration transition and can be used for policy makers to re-think their planning. These findings could directly benefit any country where bricks manufacture for construction purposes is being put into practice; in order to identify factors that would minimize global warming potentials of brick manufacturing SMEs, while gaining return to the SMEs, providing benefit to the society and to the environment at large through sustainable production



### Speaker Biography

Sampath P Dayaratne is the founder member and Managing Director of the Ace Property & Business Consultants (Pvt.) Ltd. His careers are Chartered Valuation Surveyor, human & business development professional, researcher, lecturer and trainer. He has twenty years of working experience in national and international level in both corporate and development sectors. He has published technical research articles in refereed journals, refereed conferences proceedings, numerous other papers and monographs.

e: [sdayaratne@gmail.com](mailto:sdayaratne@gmail.com)

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