

Determining a Sustainability Business Model Using Materiality Matrices in an Electricity Bus Factory

Authors : Ozcan Yavas, Berrak Erol Nalbur, Sermin Gunarslan

Abstract : A materiality matrix is a tool that organizations use to prioritize their activities and adapt to the increasing sustainability requirements in recent years. For the materiality index to move from business models to the sustainability business model stage, it must be done with all partners in the raw material, supply, production, product, and end-of-life product stages. Within the scope of this study, the Materiality Matrix was used to transform the business model into a sustainability business model and to create a sustainability roadmap in a factory producing electric buses. This matrix determines the necessary roadmap for all stakeholders to participate in the process, especially in sectors that produce sustainable products, such as the electric vehicle sector, and to act together with the cradle-to-cradle approach of sustainability roadmaps. Global Reporting Initiative analysis was used in the study conducted with 1150 stakeholders within the scope of the study, and 43 questions were asked to the stakeholders under the main headings of 'Legal Compliance Level,' 'Environmental Strategies,' 'Risk Management Activities,' 'Impact of Sustainability Activities on Products and Services,' 'Corporate Culture,' 'Responsible and Profitable Business Model Practices' and 'Achievements in Leading the Sector' and Economic, Governance, Environment, Social and Other. The results of the study aimed to include five 1st priority issues and four 2nd priority issues in the sustainability strategies of the organization in the short and medium term. When the studies carried out in the short term are evaluated in terms of Sustainability and Environmental Risk Management, it is seen that the studies are still limited to the level of legal legislation (60%) and individual studies in line with the strategies (20%). At the same time, the stakeholders expect the company to integrate sustainability activities into its business model within five years (35%) and to carry out projects to become the first company that comes to mind with its success leading the sector (20%). Another result obtained within the study's scope is identifying barriers to implementation. It is seen that the most critical obstacles identified by stakeholders with climate change and environmental impacts are financial deficiency and lack of infrastructure in the dissemination of sustainable products. These studies are critical for transitioning to sustainable business models for the electric vehicle sector to achieve the EU Green Deal and CBAM targets.

Keywords : sustainability business model, materiality matrix, electricity bus, carbon neutrality, sustainability management

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