

Sustainable Competitive Advantage Framework of New Energy Vehicle Industry Based on Big Data

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Introduction

This work is carried out for establishing the big data technology-based sustainable development system employed to the new energy vehicle sector. Firstly, establish a theoretical framework to evaluate the sustainable growth of the sector of new energy vehicles on the basis of big data. In order to systematically and comprehensively take into account the influence of big data on the industry, this paper chooses indicators from environmental, social and economic aspects and constructs a system according to the triple bottom line principle. Secondly, further explore the sustainable growth path of new energy vehicles on the basis of big data. The fuzzy-DEMATEL-ISM approach is exploited to create the framework, explain the significance of each index, and sort out how the indexes are dependent on one another. Ultimately, a theoretical framework is applied to build a sustainable new energy vehicle application system.

Research Questions

This work aims to produce a sustainable big data application system and a hierarchical theoretical framework for the new energy vehicle sector by investigating the application of big data technology to this sector.

Methodologies

- 1) Fuzzy mathematics
- 2) Decision-making Trial and Evaluation Laboratory
- 3) Interpretative Structural Modeling

Conclusion

- Resolving social issues is the key connecting factor;
- Economic tasks primarily center on smart contracts and are impacted by social issues;
- Finding a social problem solution is necessary for the ongoing improvement of environmental difficulties;
- Three levels need to be considered while building the application system: the user, corporate, and government levels.







Figure 2. ISM structure model



Figure 3. Big data-based NEV industry sustainable TPP application system