Strategic Business Plan Development for Bamboo Structural Applications inNortheast India

Abstract

The fact that the Indian bamboo sector has immense potential is not a contentious issue. The question which has remained unanswered was how can this potential be achieved. The present study is a novel attempt to find out an answer to the above question and explore certain steps that can certainly pave the way to move things faster to arrive at a point of decision. It aims to present a considered view of the needs of the sector and a better understanding of its need for support. With an objective to develop a strategic business development plan and decision support system for the Bamboo industry in northeast India, the researcher critically analysed the existing industrial structure, revisit the strategy planningand ensure strategy execution excellence for optimum utilization of resources for sustainable development. To evolve a research and policy framework for policymakers, a holistic analysis of the overall bamboo industry, bamboo supply chain, and existing government policies has been performed to design a strategic business development plan.

The study starts with the analysis of the global trade of bamboo-based products of major countries to understand the comparative analysis of India and other bamboo-rich nations. It's extremely shocking to note that, in spite of being the second largest reservoir of bamboo resources India is a net importing nation.

The factors of the bamboo industry have been identified from the review of available literature.

The conceptualization of the Bamboo hierarchical model has been done by the analysis of factors using Modified Total Interpretive Structural Modelling (TISM). The groupof 37 experts was questioned to give their views on the relationships among the factors. The modified total interpretive structural model has been prepared which clearly shows that the availability of bamboo raw material plays a pivotal role in the construction of Raw Bamboo Structures while Technology and Skill follow as the second most important factor. In the caseof engineered wood, Marketing has been identified as the key factor behind the downfall of the industry. The model shows that Government policies and Marketing play a key role in theroad to success. The majority of experts are of the view that neither the government nor the industry has invested enough efforts to attract potential customers who can pay the price of its products and services. The expenditure on marketing and customer awareness is negligible in all the developmental schemes of NER.

To follow up on the results of the hierarchical model, the raw material availability, supply chain, and policy effectiveness were further studied in the subsequent chapters. In the study on raw materials, the researcher has made an attempt to map the state-wise habitat, diversity, and distribution of important bamboo species and explored the raw material issues and their availability in NER markets. It was found in the study that all eight northeastern states have bamboo species that can are commercially important for construction purposes, hence all eight states are suitable for facility location of engineered bamboo wood manufacturing units.Hence, the study dismissed the fact that there is any serious issue of raw material availability to the companies producing the engineered bamboo products.

Subsequently, the study undergoes the supply chain analysis of (i) Raw Bamboo Constructions and (ii) Engineered bamboo constructions. Detailed case studies of the Bamboo Mat Cluster of Barpeta (Assam) and the major bamboo-based companies like A.B. Composites, Mutha

Industries, and ESES Bio Wealth were undertaken. The Supply chain analysis undergoes an in-depth analysis of the Production-to-Distribution System. The industry analysis has been done using SWOT, Porter's 5 Forces Model, SCOR model, and Cost Flow analysis to give a clearly illustrated depiction of real-life problems and their solution. To study the impact and effectiveness of public policies, the outcomes of the two Bamboo missions were critically examined using TISM. SAP-LAP analysis has been applied to unearth the current problems and develop a holistic understanding. `

The researcher studied the business model of bamboo-rich nations like Indonesia, China, Vietnam, Thailand, Malaysia, and Japan to explore the business opportunities and target industries for the bamboo sector. An attempt was made to design a conceptual model of the integrated bamboo cluster by integrating the business models of different related sectors with the production system model and industrial tourism. Finally, a decision support system (DSS) has been developed to support the decision-making process at the managerial level.

The study concludes by designing a strategic business development plan for the engineered bamboo industry which an aim to achieve 1% share of the Rs. 450 billion Indian Plywood Market by 2025. It applies the 4'A Model of strategy execution excellence which includes the strategic directions and actions needed to ensure optimum utilization and sustainable management of bamboo resources. All the activities should follow the principle of a sustainable climate-resilient green economy to avail optimum utilization of resources while ensuring environmental sustainability and forest protection. The industry should not serve only big players; it should prosper in such a way that it plays a significant role in poverty alleviation and employment generation.