6COSC023W – Final Year Project

Enhancing Sales and Marketing of Handicrafts and Supporting Product Customization Using Mobile Application.

HASTAKALA

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Abstract

The handicraft industry is an important sector of the global economy, employing millions of people worldwide and maintaining rich cultural traditions. Sri Lanka is well-known for its colorful handicrafts, which showcase the nation's rich cultural past. Customers appreciate the uniqueness and skilled craftsmanship of these products, as well as their cultural significance and support for local communities. However, the sector faces several challenges that hinder its growth and profitability. Handicraft products has a limited reach for the customers, and the sales of these products are constrained by Low consumer satisfaction, limited product customization options, and by general industrial restrictions.

Small-scale artisans and entrepreneurs in Sri Lanka rely heavily on the handicraft industry for their income, but they have significant difficulties in expanding their markets and satisfying consumer demand. Their inability to effectively display their items is caused by the shortage of marketing and sales channels, and difficulties in inventory management, sales monitoring, and customer communication lead to delays and unsatisfied customers. Addressing these challenges is crucial to the industry's success, as it would allow skilled artisans to expand their customer base and increase profitability while preserving traditional crafts and cultural heritage.

The mobile handicrafts e-commerce application HASTAKALA was created for the purpose of solving these issues, assist artisans with improved sales strategies, and makes sure a wide range of handicrafts are brought out to the global markets, allowing quick and convenient access to the public. HASTAKALA promotes customization of handmade products while facilitating consumer requests by identifying talented artists, which creates a direct connection between artisans and their customers. Technologies such as deep learning and image processing are used in this application to facilitate customers to reach for the product in search. Also, it serves as a platform for keeping track of data and enabling a structured personalization process of products between customers and artisans. HASTAKALA aims to support Sri Lanka's handicraft industry and its artisans while providing consumers with unique and authentic handicrafts.

KEY WORDS – Handicrafts, HASTAKALA, Customization, Mobile application, Artisans, Machine learning, Image processing, Delivery, Damage tracking, Tracking order.

NOTE – Artisans are mentioned as Vendors and Craftsman in this project.