Abstract

SMIs have a strategic role in driving national economic growth. Based on manufacturing Purchasing Managers Index (PMI) figures, Indonesia is currently in the highest position in Asia. Therefore, the Ministry of Industry stated that the productivity of SMI textile must continue to be carried out.

Endek woven fabrics and gringsing woven fabrics are traditional Balinese textile products. The two regions producing traditional Balinese woven fabrics with the highest number of weaves are Klungkung Regency and Karangasem Regency. This research takes objects in three traditional Balinese weaving SMI located in the two districts mentioned.

In the production of traditional Balinese woven fabrics, productivity cannot only be seen from the quantity of products where the process of making traditional Balinese woven fabrics must be based on local Balinese creative culture so that the process should not be mass produced by machines. As an effort by the government to maintain and increase the existence of traditional Balinese woven fabrics, on December 22, 2020 endek woven fabrics have been registered as communal intellectual property of traditional cultural expressions and in 2021 the Governor of Bali released 'Surat Edaran Gubernur Bali Nomor 04 Tahun 2021' concerning the use of balinese traditional woven fabrics.

Based on the 'Surat Edaran Gubernur Bali' regarding the use of balinese traditional woven fabrics, the community is also encouraged to participate in encouraging and facilitating creative and innovative efforts in the development of small and medium industries (SMI) for the Balinese community to meet the needs of endek woven fabrics or balinese traditional woven fabrics.

SMI development can be carried out with the ability of SMI to manage technology, where technology is one of the factors that influence the productivity of SMI in facing competition. The Minister of Industry also encouraged SMI players to optimize the use of technology so that SMI can survive and adjust their business in a more productive and efficient direction so that they can compete in the international market.

Based on the results of observations and interviews with the three SMIs that were the object of this study, the actual condition of the technology components in the three SMIs was at a low sophistication value. Seeing the government's encouragement to invite SMI actors to maintain and increase the existence of balinese traditional weaving SMIs and the desire of SMI owners to develop their business with increased business opportunities for balinese traditional woven cloth, this research was conducted to measure the technological components of each SMI using a technometric model.

The results of this study indicate that the three SMIs are at the semi-modern technological level, this study also provides suggestions that can be implemented by SMIs in order to develop their technological contribution, and if SMIs apply the proposals given, the three SMIs can improve their technological position to be modern while maintaining traditional production process.

Keywords: Management of Technology, Small and Medium Industries, Traditional Balinese Woven Cloth, Technometric Models.