

Capability and Quality of Products in Relation to Sustainability: A Model for a Sustainable Subcontract Electronics Manufacturing Companies

Armando S. Soriano, Lualhati P. Sausa, Jolly S. Balila, Miriam P. Narbarte,
Robert A. Borromeo, Ruben Carpizo and Edwin A. Balila
Bell Electronics Corporation and Adventist University of the Philippines

Abstract

The study aimed to determine the relationship of capability and quality of products in relation to sustainability of subcontract electronics manufacturing companies in the Philippines, Indonesia, Malaysia, Singapore, Taiwan, Thailand, and Vietnam. The respondents' profile such as plant location and years of operations were considered as moderator variables. Data from 46 subcontract electronics manufacturing companies were analyzed using descriptive and inferential statistics. Furthermore, bootstrapping procedure was used due to the limited number of electronics subcontract manufacturing companies who participated in this study. The study shows that the subcontract electronics manufacturing companies were all capable in terms of the control processes and packages classification; and highly capable in terms of production capacity. The quality of products in terms of goods and services was all perceived to be good. Company respondents were perceived to be high in economic and social sustainability and very high in terms of environmental sustainability. Further results revealed that packaging, production capacity, consumer specification, and reliability testing are significant predictors of the economic sustainability. It also shows that control processes, reliability testing, and inspection and quality were significant predictors of social sustainability. Customer specification and reliability testing are significant predictors of environmental sustainability. Overall, the result showed that production capacity, consumer specification, and inspection and quality are the significant predictors of the sustainability. CAPAQUALISUS model for sustainable subcontract electronics manufacturing companies was developed from this study.

Keywords: *sustainability, quality of products, capability*