Performance Analysis of Traditional Weaving SMEs in South Sulawesi: The Role of Mediating Technology Capability and Work Culture on the Effect of Open Innovation on Competitive Advantage

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ABSTRACT

The study was conducted on 152 SMEs of traditional weaving in South Sulawesi in two districts, namely 122 SMEs of Wajo Regency and 30 SMEs of Tana Toraja Regency. Data collection was obtained through the google meet link from February 2022 to April 2022 with the help of a network of traditional weaving entrepreneurs from South Sulawesi. The Open Innovation research variable is measured by seven indicators, Technology Capability is measured by ten indicators, Employee Work Culture is measured by thirteen indicators, and Competitive Advantage is measured by four indicators. The data is processed by SMARTPLS 3.0. The results of the study prove that there is a direct positive effect of Open Innovation and Employee Work Culture on Competitive Advantage. Employee Work Culture can mediate the effect of Open Innovation on Competitive Advantage. Work Culture is proven to have a mediating role in the influence of Open Innovation on Competitive Advantage.

Keywords: Traditional Weaving; MSMEs; Open Innovation; Technological Capability; Work Culture; Competitive Advantage; Indonesia

RESEARCH HIGHLIGHTS

1. The problems faced by MSMEs in Indonesia due to the COVID-19 pandemic require special attention.
2. The use of digital technology combined with proactive policy making for internal and external sides has the potential to empower MSMEs and “upgrade” them into new value chains.
3. The study shows how open innovation, technological capabilities, and work culture collaborate to help the MSME in South Sulawesi reach its competitive advantage.

Research Objectives

This study was conducted to determine, test and analyze the performance of South Sulawesi Weaving SMEs during the pandemic in relation to the role of open innovation in competitive advantage by incorporating employee work culture, and technological capabilities as mediation.

Methodology

This study is based on quantitative research. The study took data from 152 respondents who owned weaving SMEs in two districts in South Sulawesi, namely Wajo district as many as 122 respondents and Tanah Toraja district (TATOR) as many as 30 respondents. Both of these places have traditional weaving products that can represent the province of South Sulawesi. The data was obtained through a network of weaving craftsmen in the area. The sampling method used is non-probability sampling with purposive sampling technique, where research samples are taken based on certain predetermined criteria, namely traditional weaving craftsmen in South Sulawesi who are active and at least the craftsmen have been producing for one year. Operational variables used in data collection is open innovation with indicators namely innovation sourced from external company and innovation sourced from the company's internal (Chesbrough et al., 2014). Work Culture with indicators of supportive work culture, bureaucratic work culture, innovative work
culture (Wallach, 1983). Technological Capability with indicators of TAC (Technological Acquiring Capability), TOC (Technological Operating Capability), TUC (Technological Upgrading Capability) (Guifu & Hongjia, 2009) and Competitive Advantage that adopting 4 items from Adebisi (Adebisi et al., 2021).

**Results**

Respondents in this study amounted to 152 MSME owners, with the majority being female (80.3%), with age above 45 years. The majority of MSMEs that have been operating for more than 4 years, namely as many as 125 MSMEs (82.2%), while the least are MSMEs that have operated for 1-2 years, there are 139 MSMEs (91.4%) that do not yet have a website for their business. This study tested five (5) hypotheses, with the results of the first hypothesis H1 being accepted, namely open innovation has a positive effect on competitive advantage (p = 0.000), the second hypothesis H2 is rejected, that open innovation has no effect on technological capability (p = 0.303), the third hypothesis H3 is accepted, that open innovation has an effect on employee work culture (p=0.000), the fourth hypothesis H4 is rejected, that technological ability has no effect on competitive advantage (p=0.088), and the fifth hypothesis H5 is accepted, that employee work culture has a positive effect on competitive advantage. advantage (p=0.002). In this study, it can be proven that work culture can act as a mediation for the effect of open innovation on the competitive advantage of MSMEs.

**Findings**

In general, funding and marketing are the basic problems faced by MSMEs in Indonesia. The existence of cooperatives as an initiation of MSMEs with government support is sufficient to help with operational costs and product marketing. Most MSMEs only have five employees and the tools used by the majority are still traditional using human labor. Efforts to carry out open innovation provide a lot of space for MSMEs to increase the creativity of their employees which turns out to have a positive effect on competitive advantage. Open innovation is also able to move the work culture of employees and then be able to have a positive effect on competitive advantage, so that it can act as a mediation between open innovation and the competitive advantage of traditional weaving SMEs. On the other hand, technological capabilities have not been able to act as a mediation between open innovation and the competitive advantage of traditional weaving SMEs.

**References**


Author's Biography

**Ester Handriani** studied Communication Science majoring in Marketing Public Relations in 2016 and A Master Management majoring in Branding and Digital Marketing. Working in the media industry as a digital marketer since 2021 and also as a media consultant.

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