

## Effectiveness of extension agent services in influencing the adoption of modern hive in sustainable stingless beekeeping

### ABSTRACT

The role of extension services in the development of agricultural practices is believed to have more significant impact in influencing the adoption of modern technology. This study identifies factors affecting the effectiveness of extension agent services on participants' adoption of modern stingless beekeeping hives. A total of 117 respondents were interviewed with structured questionnaires. Descriptive statistics, factor analysis and regression analysis were employed. The survey revealed that 78 out of 117 beekeepers had adopted modern hives. Of this, 66 were men and 12 were women, with the majority being full-time operators. The factor analysis identified four factors influencing the effectiveness of extension services in the adoption of modern hives, namely guidance and encouragement from extension agent, education, training provided and outcome. However, only education and training provided by extension agents were significantly positive in influencing the effectiveness of extension services. This study suggests that capacity-building and enhancement of extension agents and services through ongoing programs seem to be the most important strategies to ensure that beekeepers understand and acquire knowledge about the advantage of adopting modern hives.

**Keyword:** Apoidae; Meliponiculture; Bees; Extension service; Socio-economy; Malaysia