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# Decomposition of Valuable Entrepreneurial Activities along the Entrepreneurial Life Cycle: a vertical LMDI approach

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## Abstract

Previous research has primarily focused on assessing horizontal factors of the Entrepreneurship Ecosystem (EE), such as policy, culture, market, talents, finance, etc. However, there is a lack of vertical time series analysis that reflects the impact of different stages of the entrepreneurial life cycle on the overall entrepreneurial activities. This study aims to provide a new approach to evaluating the EE by examining the Valuable Entrepreneurial Activities (VEA) at different stages such as the intention stage, startup stage, and survival stage. To achieve this, the study proposes a VEA equation inspired by the Kaya equation in energy economics to decompose the VEA along the entrepreneurial life cycle. The Logarithmic Mean Divisia Index (LMDI) method is utilized to analyze the contributions of each entrepreneurial stage to the overall entrepreneurial activity within an EE. By doing so, this method can explain the dynamic changes of an EE, predict future VEA and provide specific policy recommendations based on the impact of VEA at different stages. Israel and Hong Kong were selected as case studies to illustrate the method.

## About the Speaker

XIONG Rui is a PhD student in the Department of Systems Engineering at City University of Hong Kong. He received bachelor's degrees with a double major in Energy and Power Engineering and Finance at Xi'an Jiaotong University in 2020 and an M.Sc in Engineering Management at City University of Hong Kong in 2021. His research interest is Entrepreneurship Ecosystems and Startups.