

# BMF CP81: Evaluating the impact of university education on sustainability knowledge, attitudes, and intentions among university students

# Minh-Phuong Thi Duong

Faculty of Social Sciences and Humanities, Ton Duc Thang University, Ho Chi Minh City, Vietnam

September 8, 2024

"There must be a plan of action because delaying will be dangerous. Kingfisher is unsure if he is too worried, but every time he counts the fish in the pond, the number of fish seems to decrease. The hot and stressful weather also makes his feathers molt and grow slower. The situation seems life-threatening!"

-In "GHG Emissions"; *The Kingfisher Story Collection*.

# [COLLABORATIVE PROJECT]

# 1. The project

### 1.1. Main Objectives

The current study is conducted to examine the following objectives:

- Examine the impact of education on undergraduate students' sustainability knowledge, attitudes, and intentions
- Propose changes in educational approaches to promote sustainability.

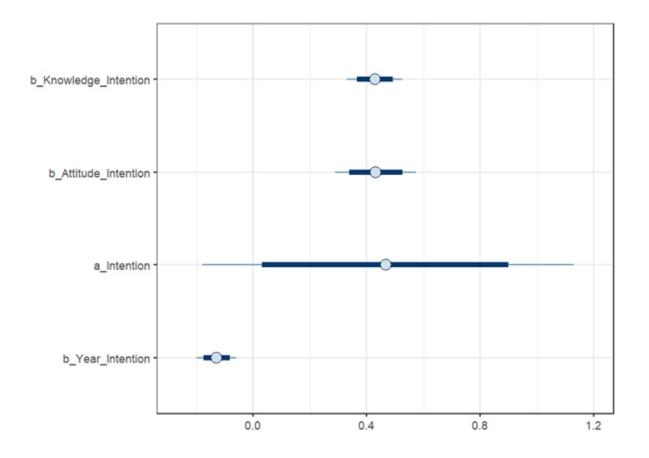
The findings are expected to inform strategies to align educational content, corporate culture, and societal values with sustainable development goals [1].

### 1.2. Materials

The granular interaction thinking of mindsponge theory will be used for the conceptual development of this study, while Bayesian Mindsponge Framework (BMF) analytics will be used for statistical analysis [2-3]. The dataset comprises 312 valid responses collected through a bilingual questionnaire administered to undergraduate students pursuing a business degree, with a focus on hospitality and tourism, at Prince of Songkla University in Phuket, Thailand, during the fourth quarter of 2021 [4]. Statistical analyses will be conducted using the Bayesvl R package, which utilizes the Markov chain Monte Carlo (MCMC) algorithm for estimation [5]. For the sake of research transparency and reducing research and reproducibility costs, we have stored all data and computer code on Zenodo: https://zenodo.org/records/13731855.

# 1.3. Main Findings

The preliminary analysis reveals that both "Knowledge" and "Attitude" have significant positive effects on "Intention," indicating that increases in either lead to higher "Intention" levels. In contrast, the "Year" variable has a significant negative effect on "Intention," suggesting a decline in sustainability intention after years of education. (see Figure 1).



# Figure 1: Estimated coefficient

## 2. Collaboration procedure

Portal users should follow these steps for registering to participate in this research project:

- 1. Create an account on the website (preferably using an institution email).
- 2. Comment your name, affiliation, and your desired role in the project below this post.
- 3. Patiently wait for the formal agreement on the project from the AISDL mentor.

If you have further inquiries, please contact us at <u>aisdl\_team@mindsponge.info</u>.

If you have been invited to join the project by an AISDL member, you are still encouraged to follow the above formal steps.

All the resources for conducting and writing the research manuscript will be distributed upon project participation.

AISDL mentor for this project: *Minh-Phuong Thi Duong*.

AISDL members who have joined this project: Minh-Hoang Nguyen, Quan-Hoang Vuong.

The research project strictly adheres to scientific integrity standards, including authorship rights and obligations, without incurring an economic burden at participants' expenses.

### References

- [1] Vuong QH, Nguyen MH. (2024). *Better economics for the Earth: A lesson from quantum and information theories*. <a href="https://www.amazon.com/dp/B0D98L5K44">https://www.amazon.com/dp/B0D98L5K44</a>
- [2] Vuong QH, Nguyen MH, La VP. (2022). *The mindsponge and BMF analytics for innovative thinking in social sciences and humanities*. Walter de Gruyter GmbH. <a href="https://www.amazon.com/dp/8367405102/">https://www.amazon.com/dp/8367405102/</a>
- [3] Vuong QH, Nguyen MH. (2024). Further on informational quanta, interactions, and entropy under the granular view of value formation. *VMOST Journal of Social Sciences and Humanities*. https://doi.org/10.31276/VMOSTJOSSH.2024.0060

[4] Fuchs K. (2022). Survey dataset for the perceived consciousness towards environmental sustainability by undergraduate students. Data in Brief, 41, 107985. https://doi.org/10.1016/ j.dib.2022.107985

[5] La VP, Vuong QH. (2019). bayesvl: Visually Learning the Graphical Structure of Bayesian Networks and Performing MCMC with 'Stan'. The Comprehensive R Archive Network. https:// cran.r-project.org/web/packages/bayesvl/index.html

[6] Vuong QH. (2022). The Kingfisher Story Collection. https://www.amazon.com/dp/ BOBG2NNHY6



©2024 AISDL - Science Portal for the SM3D Knowledge Management Theory