

## **ASEAN COUNTRIES ECONOMIC STABILITY INDICATOR DASHBOARD**

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**ABSTRACT** - This research was motivated by the expected 2023 economic recession. Every nation wants a stable economy to boost national income. Every country must evaluate its economic position to create an economic plan to stimulate economic growth and attract investors. This study has created an economic stability dashboard and web application for Southeast Asia. The objectives are to find the requirements and techniques for an excellent system, to design and develop the system using Big Data tools and evaluate the system's usefulness by using Technology Acceptance Model (TAM). This study uses the RAD model for system development in a short time. Within RAD's phases, these goals are met. This survey included 53 Malaysians from government, semi-government, non-government, and self-employed, ages 24 to 59. The system's mean score is 4.76, which means the system is useful. Thus, users can make decisions with the system. This study used prediction, so it was expected that the predicted value would be different from the actual value. Machine learning would be a better prediction model for the project's future implementation.

**Keywords:** Inflation, GDP, currency exchange, unemployment, dashboard

### **1. INTRODUCTION**

ASEAN Countries Economic Stability Indicator Dashboard is a dashboard that monitor the economic stability of ASEAN countries. The goal of this study is to assist the investors who are interested on investing in ASEAN countries on the decision-making to gain profit for their investments. There were three objectives that have been established. The first objective is to find requirements and techniques used for creating an ASEAN Countries Economic Stability Indicator Dashboard. The objectives are to find the requirements and techniques for an excellent system, to design and develop the system by using Big Data tools and evaluate the usefulness of the system by using Technology Acceptance Model (TAM).

### **2. METHODOLOGY**

The model that was adopted in this study is the Rapid Application Development (RAD) model. This methodology was chosen due to the capability of completing the dashboard within a limited time. This methodology has four phases with several interrelated activities, which involves the roles of the user during the prototype phase. The involvement of the user and the developer during the prototype phase makes it easier for the developer to further develop the dashboard according to the user feedback.

### **3. RESULTS AND DISCUSSION**

The evaluation model used is the Technology Acceptance Model (TAM). The sample survey was 53 Malaysian which aged 24 to 59 years old that were employed. The evaluation consists of four dimensions with 5-point Likert scale answer. The mean score for overall dimensions is 4.76 which indicates that the system is useful. Figure 1 shows the mean score for every dimension.

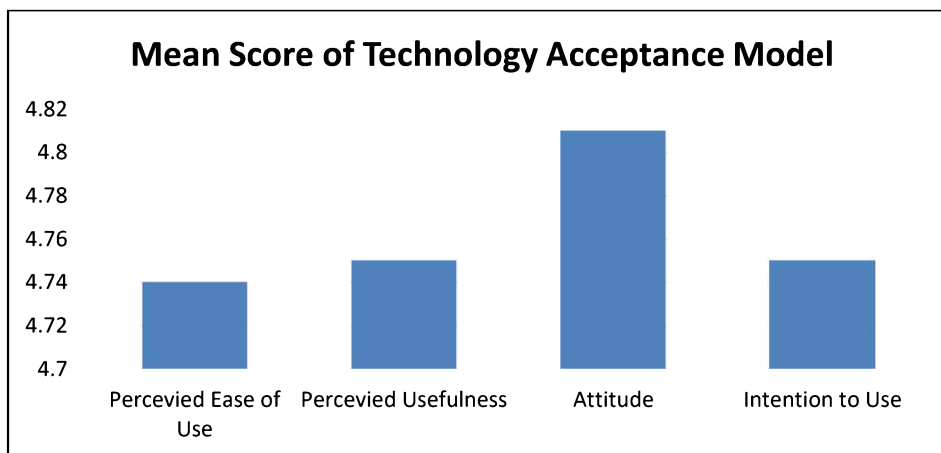


Figure 1 Mean Score

#### 4. NOVELTY OF RESEARCH / PRODUCT

The current dashboard that is available online is not sufficient for the consumers worldwide as it focuses only on the Europe region based on the dashboard by the European Central Bank and it also focuses on the inflation rate only. In addition, as for the inflation rate, the consumer items it considers do not cover all economic production or consumption, current GDP rate is insufficient for determining a country's power, insufficient information on the effect of uncertainty on changes in exchange rates and there is an uncertainty of the limited facts for unemployment rate. Accordingly, this study proposed an economic stability indicator dashboard to help users to analyse the performance of inflation rate, GDP, currency exchange and unemployment rate and the relationship between these indicators with economic stability to conclude the economic stability of the ASEAN countries. This study may assist the investors on decision-making for their investment with the presented predictions provided in the dashboard.

#### 5. CONCLUSION

In conclusion, the system is useful for the users as a decision-making tool. Through this study, the investors may obtain a sense of the performance of each ASEAN country, which helps them determine which country to invest in so that they can profit. For future implementation of the study with economic related field, this technology can be used for time series prediction study and for constructing the same dashboard for various locations.

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