



ローマクラブをヒントにした不安定国家の項目診断

Item Diagnosis of Unstable Nation that Has Inspired by the Club of Rome

吉原 均*

Hitoshi Yoshibara

矢野 宏**

Hiroshi Yano

Genichi Taguchi described the role of quality engineering as freeing society from the need to predict, diagnose, and decide. In *The Limits to Growth*, the first report issued by the Club of Rome, Dennis Meadows et al. sounded the alarm by warning that if population growth and environmental destruction continued unabated, mankind's growth would reach its limit within 100 years due to depletion of resources and deterioration of the environment. In an initial report on research, inspired by the proposals of the Club of Rome, in which the Mahalanobis-Taguchi system was used to study changes in national census data, we showed that the distances of the error root mean square for each nation for each year displayed characteristic national traits with time-series trends. In this second report, the implications of the error root mean square in distinguishing unstable nations and developed nations from the features of each nation are studied in relation to itemized diagnostics by the MT system. The result is that, from the features of the gain of the 'percent of total population aged 65 or over' item, if positive and negative signs are assigned to the error root mean square distance, it is possible to distinguish between unstable nations and developed nations and use the MT system to understand the time-series changes for each nation.

Key words : Mahalanobis-Taguchi system, error root mean square, diagnosis, state of nations, environment, resources, population, the failed state, the world, S/N ratio, Taguchi methods, quality engineering

1. 研究の背景と目的

田口玄一はかつて統計の役割として、(1)問題のない社会であること、(2)問題の発生の可能性があれば、可能な限り早く予測して対策すること、(3)

問題の発生があるならば対策をとることを書いた。¹⁾ 1960年代の話であるが、現在は品質工学の役割であろう。(1)は理想社会であるから実現は難しいが、(3)では遅いので、(2)の段階を研究することが重要で、マクロ品質工学²⁾とは、まさにこの研究である。筆者らはこれを拡大して、地球規模に検討することを考えて第1報を作成した。ここでは、国家群を誤圧で識別可能としたが、まだ検討が不十分で

* NMS 研究会, 正会員

** 応用計測研究所(株), 正会員