

## Conclusions

The conclusion as follows: first, Islamic work ethics could not affect the distributive justice, but could influence the procedural justice and interactive justice. Second, distributive justice, procedural justice, and interactive justice could have an impact on job satisfaction. Third, Islamic work ethics could have an impact on job satisfaction. The limitations of the study as follows: *First*, the respondents who participated in this study could be not identified their level of understanding about the Islamic work ethics values; *Second*, several other variables could be expected to contribute to the job satisfaction, but not tested in this study. The recommendations for the future research, *first*, it is necessary to identify the respondents about their level of understanding about the Islamic work ethics, so that the result of the study has a higher quality through the mapping process. *Second*, other variables can add in the testing, for example, the variables of employee performance, citizenship behavior, management conflict, or other variables that are relevant to the purpose of the research.

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## Basic aspects of cognitive analysis of socioeconomic systems

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### Introduction

Cognitive analysis is considered as one of the most powerful research tools for semistructured and unstable systems. It contributes to the better understanding of existing problems, the identification of contradictions and qualitative analysis of processes of the researched system or object.

The key instrument of cognitive analysis is cognitive modeling. Its essence is to reflect the most complex problems and the development trends of the researched system in the simplified form as the model, to investigate the possible scenarios of the emergence of crisis situations, to find the ways and conditions of their solution in the simulated situation. The applying of cognitive models efficiently enhances the validity of management decisions in a complex and semistructured environment. It helps the expert to reflex the situation, to develop the effective management strategy which is based not only on his intuition, but on the ordered and verified knowledge about the researched complex system.

In general, cognitive analysis allows:

- to examine the problems in the unstable, semistructured systems that are almost impossible to study using traditional mathematical models;
  - to take account of changes in the outer environment and in the managed system or object;
  - to systematize and to verify the expert ideas about the managed system or object;
  - to plan ahead considering today's prospects, resources, means;
  - to use objectively formed development trends of the situation to your own advantage;
  - to predict the consequences of certain management decisions;
- to develop optimal management strategies in the fleeting situation considering the impact of external, internal, unpredictable, long-term and other tendencies and factors.

### Author's research results

As it is well known, socio-economic systems are complex and semistructured. That's why the cognitive models could be applied for their research to improve the management of such systems.

The proposed method of cognitive simulation of the development of national economy as the socio-economic system consists of the following stages:

1. The formulation of the goals and objectives of the simulation.
2. The formation of cognitive map: the determination of basic factors, the aggregation of the basic factors in the groups (the development potentials), vertical and horizontal decomposition of the model, the determination of the links between the factors.
3. The formation of cognitive model: the determination of strength and directions of mutual influences between factors, the determination of the factors weight for vertical and horizontal levels of the model decomposition, the determination of the factors that may be managed.
4. The obtaining of the result of cognitive simulation: the software implementation of the cognitive model, the verification of the model, the input of the initial parameters of the tendency, the definition of the target state of the simulated system, the input of the target parameters of the simulated system, the calculation of the built computer model.
5. The evaluation of the obtained results of cognitive simulation.
6. The formation of the conclusions and recommendations.

The first stage is about the identification and conceptualization of the researched system.

The second stage gives the cognitive map, which shows the availability of the influence between the factors. At the third stage is being developed cognitive model to determine the type of the linking between the factors and their weights, to refine the parameters of the simulated system.

When we are talking about the cognitive simulation of the development of national economy as the most complex socio-economic system, it is needed to do its decomposition in two directions: vertical and horizontal. The vertical decomposition is formalized by the integral indicator of the development potentials:

$$I_j = \sum_{i=1}^n w_i \cdot k_i, \quad 1 \leq i \leq n, \quad (1)$$

where  $k_i$  – the value of the factor of the group of factors of j-potential,

$w_i$  – the value of the weight coefficient of the factor in the integral indicator of j-potential,  $-1 \leq w_i \leq 1$ .

The horizontal decomposition of the development of the national economy is set by its economic zoning. At the cut of horizontal and vertical decomposition are formed the integral development indicators.

The total integral indicator of the development of the economic zone is defined as:

$$IR_i = \sum_{j=1}^n \alpha_j \cdot I_j, \quad j = \overline{1, n}, \quad i = \overline{1, n}, \quad 0 \leq \alpha \leq 1, \quad (2)$$

where  $i$  – the number of the economic zone;  $j$  – the name of the group of the factors of the potentials;  $\alpha_j$  – the value of the weight coefficient of the integral indicator of  $j$ -potential  $I_j$  in the total integral indicator of the development of the economic zone;  $I_j$  – integral indicator of  $j$ -potential.

The integral indicator of the development of the socio-economic system is calculated as:

$$I = \sum_{i=1}^n \beta_i \cdot IR_i, \quad i = \overline{1, n}, \quad 0 \leq \beta_i \leq 1, \quad (3)$$

where  $\beta_i$  – the value of the weight coefficient of the total integral indicator of the development of the  $i$ -economic zone;

$IR_i$  – the value of the total integral indicator of the development of the  $i$ -economic zone.

### Conclusions and possible practical implications

The results of calculation of the integral indicators of the development potentials and total integral indicators of the development of the economic zones gives us the description of the current tendencies of the researched socio-economic system. These values are used as the initial parameters for the computer-based calculation of the cognitive model. Based on these integral indicators is formed the vector of the goals as the set of the target factors. The changes of these target factors while performing the cognitive simulation are showing the level of the achievement of the strategic goals of the development of the researched system by the coordinates of the vector of goals.

For the software implementation of the cognitive models can be used specialized applications, such as iThink, CogTool, COGENT etc. They provide the accuracy and the visualization of the results of the cognitive simulation.

## Coverage of “Aging Society” in Thai media: Case study of Thairath newspaper in 2015

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### Abstract

The aim of this research is to study the coverage of aging society, one of the vital global challenges in this era, in Thai media, qualitatively and quantitatively. Thairath newspaper was employed as the research's case study as it is Thailand's biggest and most influential newspaper. Content analysis was employed as the main methodology of this research. However it was conducted into two parts. The first one is quantitative part. The finding shows that over the past 10 years, the number of aging society news coverage in Thairath was skyrocketed in year 2015. It reflected that aging society was an important social and media agenda in 2015. Therefore, the coverage in year 2015 became the research's focal point in qualitative content analysis part. In this part, the findings show that most of the coverage heavily focuses on economic and financial aspects rather than health and educational aspect and also lack intergenerational understanding and social preparedness to cope with aging society challenges. The finding can be a platform to study other forms of media so that the public and policy makers can map a media strategy to created informed and prepared society towards aging society problem.