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## Development of Intellectual Decision Support System to Select the Direction of Training Courses

The market of educational services of Ukraine is characterized by high demand and offers a number of training programs and courses. Each educational institution is forced to formulate its own specificity and hunt for a "social niche". So here comes the problem of choosing the direction of the preparatory course.

Intelligent decision has been developed to solve the problem. The database that contains all the alternatives has been: the course number; the name of the course; course orientation category include; duration; the flow of clients; the age category of clients; income from one client; predictable investments and level of competition.

The rules have been constructed in the form of a production model and the analysis carried out from the database [1]. The histograms below are for three criteria (Fig.1-3).

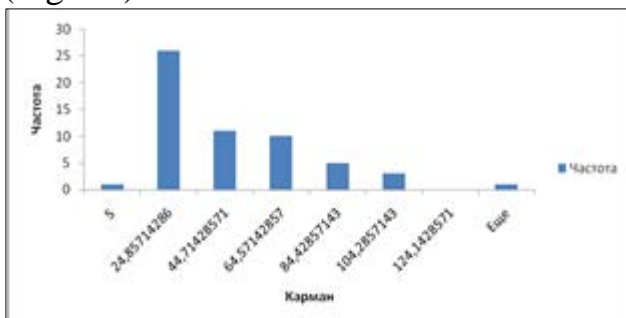


Figure 1. Course duration frequency histogram

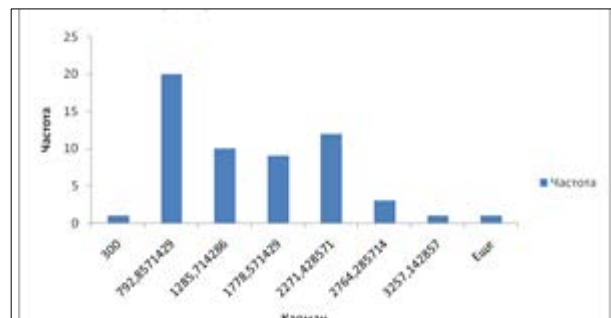


Figure 2. Profit per customer frequency histogram

Figure 3. The number of competitors frequency histogram

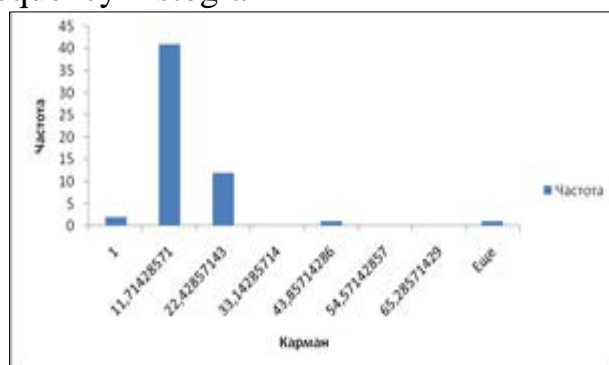


Figure 3. The number of competitors frequency histogram

Looking at the figures it is difficult to identify distribution laws. So the rules usually ask for three equal in the histograms about segments (Figure.4-6).

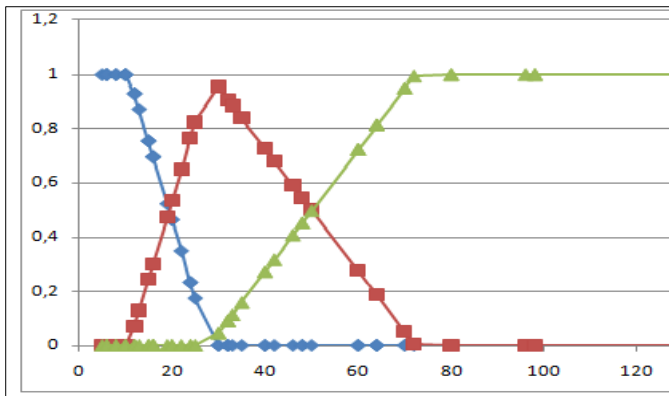


Figure 4. Graph of functions values to the duration of the course

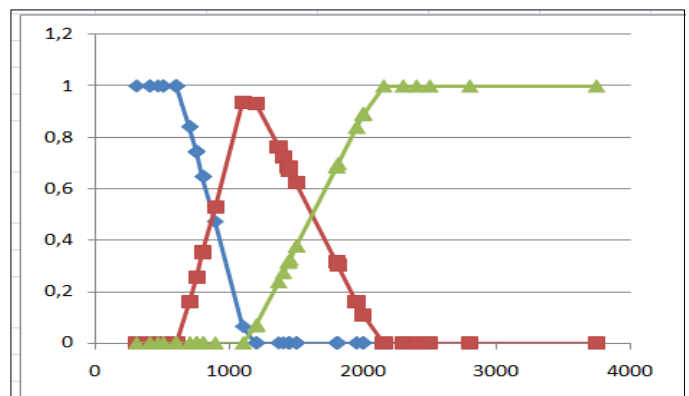


Figure 5. Graph of functions values to the number of customers

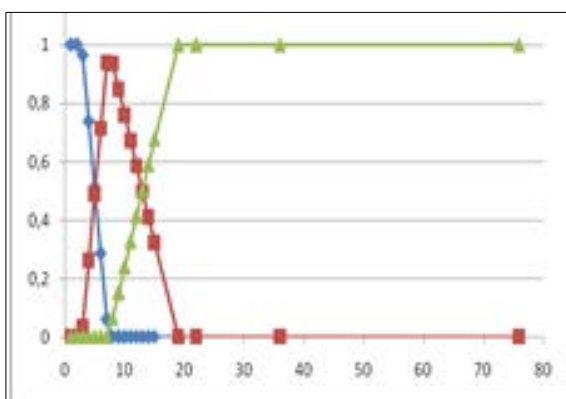


Figure 6 - Graph of functions values to the number

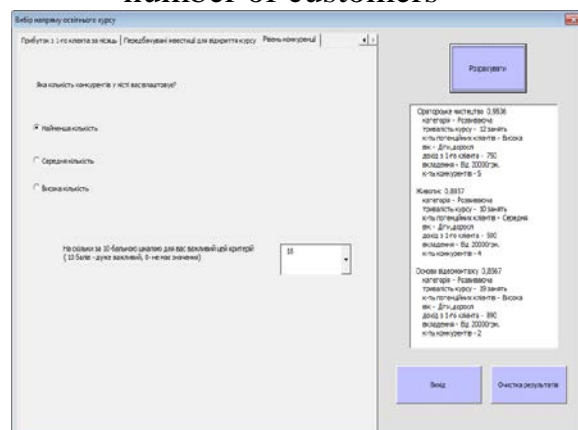


Figure 7. The results of the program

A person who makes a decision to respond to the proposed questions and chooses the priority value from 0 to 10 is given criteria. After answered the questions gets he the result (Figure 7). For convenience, the results of the program are displayed in addition to the Excel letter.

Intellectual decision support system created by us selects the direction of training courses and facilitate decision-making.

### References:

1. K. Townsend (1990). Proektirovanie i programmaya realizatsiya ekspertnykh sistem na personalnykh EVM [Design and realization program of the expert systems on personal IBM]. Moscow: Finance and Statistics [in Russian].
2. Krasitska, A.V, Homyak, T.V (2016). Zadacha vboru napryamu diyalnosti pidgotovchih kursiv [The task of choosing direction of the training courses]. P.A. Nakaznoy(Eds.), TeoretichnI I prikladnI problemi fiziki, matematiki ta Informatiki – Theoretical and applied problems of physics, mathematics and Informatics, (p.51-53). Kiev: VPI VPK «Politehnika» [in Ukrainian].