

## SUBJECTIVE PROBABILITY ASSESSMENT OF ORGANISATIONAL RISKS IN EDUCATION – AN APPROACH TO SCHOOL POLICIES

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**Abstract:**

*This paper proposes a method for consultants dealing with organisational problems in schools. The method is useful for school governing bodies too, subjective risk assessment of the key issues of the school being a way to generate strategic organisational answers/papers. The method is based on the Risk Priority Number (RPN) calculation for events or situations having negative impact on school's organisation.*

**Key words:** *subjective probability; risk assessment; emotional factor; school policies; prioritizing alternatives*

**Subjective probability assessment** have its importance for organisational decision-making, especially in situations where it is the only way to have an idea about the impact of hidden or concealed factors – corruption, mistrust or illegal actions. The exercise itself of organisational assessment is a mean to alignment of people's goals, desires and motivations; also, assessing risks creates significance for some phenomena that, otherwise, would silently do their destructive work, with no means of measurement.

**Knowledge utility of the decision-makers subjectivity.** Behavioral economics<sup>2</sup> considers that managers' decisions are influenced by emotional factor and they make systematic errors due to the cognitive models and representations they use to analyze financial data and facts. Many times the value of a prior investment, even though this investment is not profitable anymore, influences decisions. At the same time, the lack of objective judgment plays a crucial role in strategic management. The managerial vision is determined by the dominant values of the subject and by the decisional models he/she adheres to. In order to gain a more in depth knowledge of the this subjective approach an exercise of estimating the risk was conducted in 17 schools. At the beginning, all respondents have been focused by a short training session, that clarified the definitions of the categories, and the way of work - examples have been given.

*The short description of the exercise is the following:* Exercise for estimating risks: this paper is a starting point for discussing some standards regarding the dysfunctions and aggregating the level of severity for each problem category. The "risk priority number" will be summed in order to analyze the risk associated with the identified problems. The worksheet is used for the following:

- prioritizing the risks associated with various actions/ processes

- examining and comparing decisional alternatives
- application of correctional measures

For calculating the RPN related to the potential failure we use the following formula:

**RPN = Severity X Occurrence X Detection**

Severity, which rates the severity of the potential effect of the failure.

Occurrence, which rates the likelihood that the failure will occur.

Detection, which rates the likelihood that the problem will **not** be detected before it reaches the student, as end-user.

Each factor that leads to RPN and that has a value attributed on a scale of 1 to 5 according to the description below:

*Severity*

Score	Effects	Consequences
1	Very weak or inexistent	The activity/process/result are affected to a small extent
2	Weak or minor	The process can still take place, the product can still be used with a diminishing of performance
3	Medium or significant	A diminishing of performance, quality and value
4	High, strong	The products cannot be utilized anymore, the process cannot take place and utility is compromised
5	Very high, catastrophic	Affects the security of the individual, institution, system in an irreversible way with influence on adjacent domains of activity

*Occurrence*

Score	High probability
1	Very small/inexistent
2	Small or minor
3	Medium or significant
4	High
5	Very high almost certain

*Detection*

Score	The probability of not detecting the frequency cases get omitted
1	Very small/inexistent
2	Small or minor
3	Medium or significant
4	High
5	Very high

*The form that subjects completed contains the following categories:* The problem category, the topic, the principle that is overlooked, the legislation that is overlooked, the administrative level the process takes place. The subjects estimated the frequency of the signals, the severity of the law trespassing, the possibility of not detecting or the frequency with which the cases get omitted, the level of trust of the public, the persistency in time of the problems using scales created before. The severity of the law trespassing, the level of public trust and the problem persistency can be measured with certain standards. The current state if research consists in consulting the school authority and objective manifestation.

**Categories of problems**

1. Concepts, planning, projections
2. Information management ; includes issuing documents
3. Information Transparency
4. Low Efficiency of the System
5. System Inefficiency (discrepancies between objectives and accomplishments)
6. Human Resource Management- having the necessary personnel with the adequate knowledge, training, personnel review
7. Financial Management- Budget, Social Assistance- Scholarships of various kinds
8. Safety
9. Human Rights
10. Rules

**Principles that are bent:**

1. Merit Principle
2. Equality of chances
3. Equity Principle
4. Retributive justice (JR)
5. Procedural justice (JP)

**Legislation bent-** this is where the legislation will be explained, the article, the quantified description of the act

**The level of public trust-** subjective manifestation – 5 steps 1-very small-to 5 very large

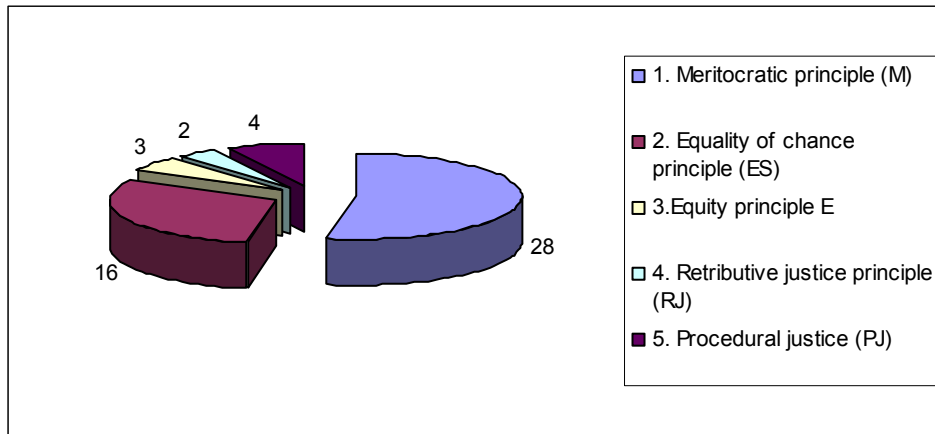
**The administrative level of control:**

1. School- internal monitoring (NCS)
2. Local level – local monitoring ( NCL)
3. County – monitoring at a county level ( NCJ)
4. Region- Monitoring at regional level ( NCR)
5. National – Monitoring at national level ( NCN)

The persistence in time of problems: from 1- accidental- to 5- permanent

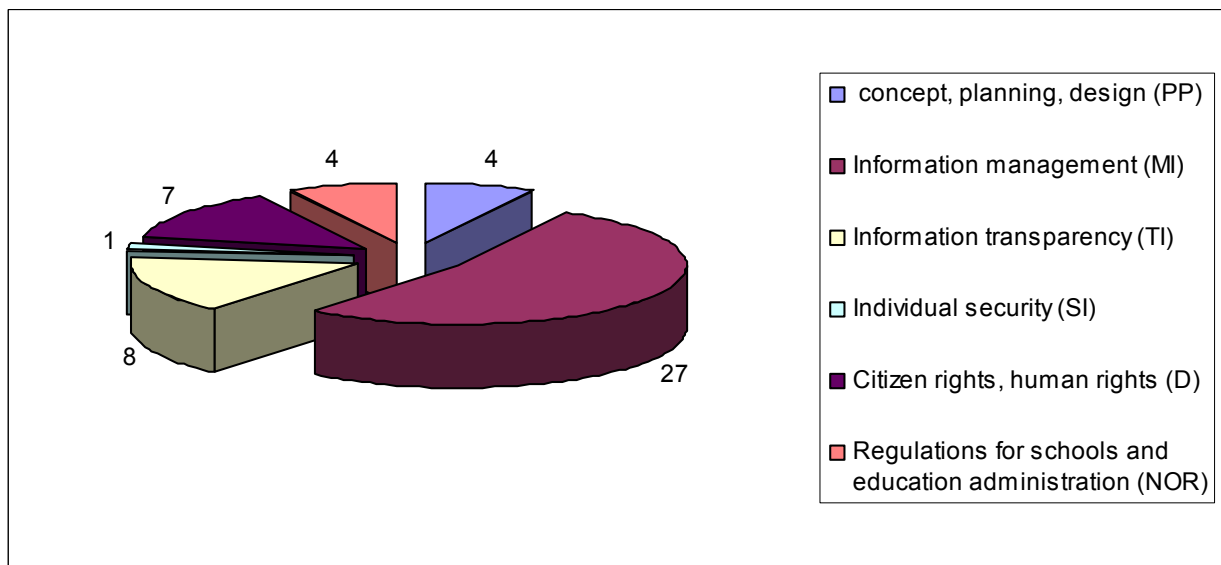
**The utility of the instrument for the school** was tested also by the utilization of the trainees during the financial management course. The trainees' presentation of the risks represented a topic of analysis for the school administrative council. A calibration of the instrument at school level allows an evaluation of educational risks. For the use of the trainers in order to increase school autonomy, the instrument allows systematic activities of the school bodies. The instrument is at the same time detailed in matters of risk and enough focused on risk issues used to determine the main problems of the school. The school principals have signaled the way that the rules are bent, the most frequently being bent the meritocratic principle, followed by the principle of equality of chances.

**Overview of results of the research**



**Figure 1.**

The statistical results of the survey conducted among the school principals through the risk exercise (the full results can be found in the complete research document) show that the principle most frequently bent is the meritocratic one followed by equality of chances.

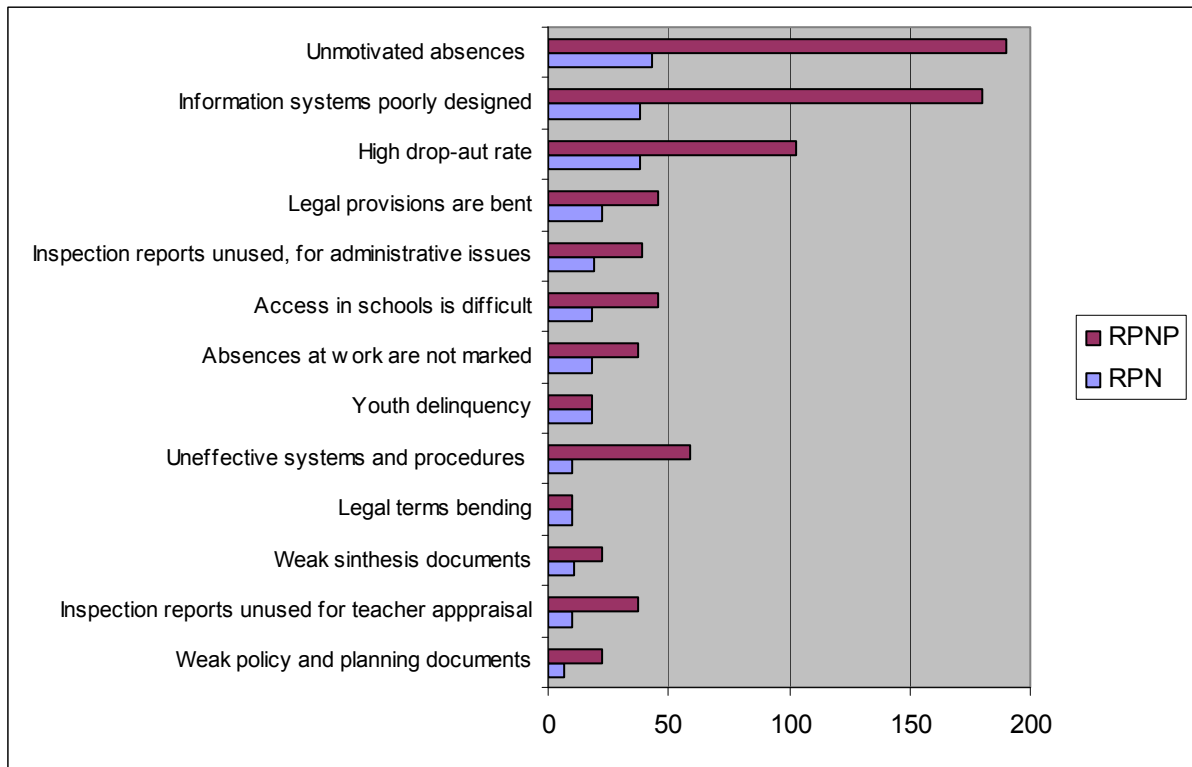


**Figure 2.**

From the categories mentioned above, the most frequent references are towards information management, followed by transparency in information and human rights. After applying the instrument, the consultant can opt for detailing the results through additional investigations of the fields that appear frequently. The consultant should use the right methods in order to solve the identified issues. The methodological approach of the instruments and regulations that the consultant can suggest must answer a set of questions, together with the decisive factors within the school.

**Verification list**

- The method corresponds to the cost indicators- allows spending and brings along financial and labor efficiency
- Will surpass organization barriers- perception and communication
- If the method chosen will surpass the legal obstacles and personnel qualification
- Is suited to the size and purpose of the organization
- Will help the organization to improve its results
- Are cost drivers taken into account?
- Will the chosen method surpass the identified obstacles( legal, organizational, personnel qualification and cultural)



**Figure 3.**

An interesting statistic of the risk factors, estimated both by the RPN and the RPNP (RPN multiplied by Persistence in time factor) shows that the statistics doesn't change depending on the order of the risk factors, but the emphasis on one or the other shows the deficiencies of the administration in making decisions.

After the previous exercise, the subjects build a check-list of the necessary activities in the course of their daily agenda. The purpose of it is to prevent the major risks for both the school and its own carrier.

**Agenda Content**

1. Checking: the school's material goods, situations that occur during the night shifts, the condition of the building, the report of the maintenance and surveillance

- personnel, the secretary's report who received important and time sensitive documents- situation similar to the report presented by the emergency personnel in the medical system
2. The time the school principal spends in the office: kindergarden 50% of the time spent in the institution and 30% for school and high school
  3. We recommend around three cycles in which the school principal should respect precise moments of the agenda. In order to better accustom the personnel that in that time frame
  4. It is recommended to have three time frames in which the school principal should respect precise agenda items in order to accustom the personnel that in that time frame there should be no interruption and that certain activities take place regularly. In general these are activities related to risk management – checking teacher's timeliness, verifying important documents, safety and various incidents that occur.

### **The impact of unforeseen events, cause and consequences**

*Fact: All school principals from the sample are delegated. This means that they can be released from the position by the General Inspector of Education at any time without any justification*

Consequences named by the subjects:

- Long term plans that are not needed because the principals know that they won't get to implement them and their successors won't agree with the plans
- The plan for developing the institution is not assumed by the local authorities. It cannot be efficiently implemented because the decisional factors are unknown. These factors lead to a superficial drafting and a lack of meaning for the principal, and an incoherent approach in the development of the institution
- The strategic plans, deadlines and responsibilities are not important for the school personnel
- A school principal in this situation is uncertain of the results of its effort therefore he/she is uncertain if it worth building something; the easiest solution is to turn to defensive strategies in order to keep its position
- The uncertainty of the job becomes an unnecessary stress factor. The frustrations pile up negatively impacting the next future principals as well, who will be confronted with the same situation
- If you invested in a job it is important to be rewarded
- You have no incentive to take an initiative
- The personnel of the school won't respond to your suggestions
- There is a big difference between the status of a principal that is appointed and one that competes for the position

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<sup>2</sup> Loewenstein, G. F., Blount, S. and Bazerman, M. H. **Preference reversals between joint and separate evaluations of option: A review and theoretical analysis**, Psychological Bulletin 125(5), 1999, pp. 576-590