Estimation of Expert's Competence for the Tasks of Forecasting

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Abstract

The thesis represents the forecasting system as an organic and important part of the management for the various types of organizations and enterprises. Forecasting, with the strategic planning, is complexly discussed and considered necessary and obligatory background for the development of any company. The publication describes the forecasting system as combined method of forecasting and unifies quantitative and expert (judgmental) forecasting methods.

The methodology of the expert's competence's determination considers the expert's skill in specific field by the following assessment criteria: education quality, general work experience, work experience in specific field, expert's experience, awareness in the field and expert effectiveness.

Keywords: Analysis, Assessment Criteria, Expert, Expert's Competence, Forecasting, Management, StrategicPlanning, "The 7A" JEL: M10

1. Introduction

For the implementation of effective management for any organization or person in managing the political, social and economic processes, the forecasting of results is the most important element at decision making in order subjects involved in the management process be able to avoid expected negative consequences, make analysis of possible events and take optimal decisions. The necessity of forecasting the development of social-economic or political processes is significantly increased in the conditions of modern world economic globalization. Correspondingly, to make correct forecasting, with its role and purpose, has become one of the most important parts and background in correctly determining the political orientation of the country, also development of state, public and private organizations. Besides, globalization and its modern frameworks are one of main reasons of complicacy in making a reliable forecast. The more the economic borders are open and markets are integrated, the more factors influence upon the current political and economic development of this or that country that complicates to forecast future and possibility to make correct prediction. Thus, it's vague that better decisions are made when future is determined and everyone who takes decisions definitely needs forecasting.

2. The Process of Strategic Planning and Forecasting

Success and development of any organization is inconceivable without strategic planning that clearly reflects com-

pany's goals and tasks, analyzes its strong and weak sides and estimates potential internal and external threats. This form of planning includes long period and determines strategic direction of the organization. Though, strategic planning must not be considered as a template document with strictly regulated frameworks for company's development as organizational environment influences upon any company's activities that includes work and general environment and forces influencing upon company's operation. Based upon above given conditions, there is necessity of making definite changes in strategic planning from time to time in order not to lose actuality, to make company more flexible in organizational environment in relation to current processes. This secures the flexibility of the management system and high adaptability of company to the process of the existing organizational environment, which is necessary condition for success of any organization. Therefore, forecasting is an instrument used for making corresponding corrections in the strategic planning. It is considered as the necessary changes of the strategic plan on the basis of investigation of the existing processes and the organizational environment. Correspondingly, forecasting, as a function, is fundamentally connected to the following stages of strategic planning process: determination of organization goal and purposes; micro and macro environment analysis; strategy processing; strategy development and monitoring; so forecasting as integral part of management process and "relationship" of above mentioned stages of strategic planning should be discussed in dynamic process. (Bagaturia, 2009; G.Bagaturia & O.Bagaturia, 2009).

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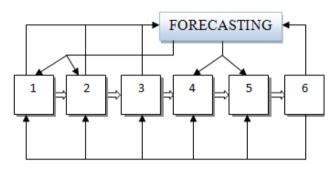


Fig 1. Strategic Planning Process and Forecasting

Shown in the Figure 1 blocks indicate the following meaning:

- 1. Description of Organization and its activities;
- 2. Vision, Mission, Goals, Objectives;
- 3. Analysis (we call as "The 7A"): Macro-environment analysis, Micro-environment analysis (including company situation analysis with SWOT analysis and the analysis of organisational effectiveness of a company), PESTEL analysis, "Noise" analysis, Resources analysis, Market analysis, Strategy analysis.
 - 4. Strategy processing;
 - 5. Strategy development;
 - 6. Monitoring and correction (feedback).

The sequence of strategic planning stages and role of forecasting in the process of planning and implementation of developed strategy is shown in the Fig.1. Parallel to monitoring, the constant study of current processes in macro environment and company, forecasting of their probable development and analyzing the possibility of strategic planning implementation with its respect is necessary. The required information for forecasting is obtained from the 1st, the 2nd, and the 6th stages of strategic planning. After searching and analyzing the information, the forecasting is made by using the corresponding prediction. After forecasting, according to the quality of influence upon expected changes in macro environment and company and implementation of their strategic planning, the corrections are made in the 4th and the 5th stages - "strategy processing" and "strategy development". But if expected changes have more drastic effect upon the strategic planning, it's necessary to overview "Description of Organization and its Activities" and "Company's Vision, Goal and Purpose". So, forecasting is an integral part and necessary function of strategic planning and management.

3. Combined System of Forecasting

The mentioned system of Forecasting unifies the types of quantitative (mathematical-statistical) and expert forecasting methods. The method signifies the fact that the expert is the main figure of the forecasting, who uses both quantitative as well as expert forecasting methods to study and anticipate the possible phenomenon. There are in the literature various suggestions regading of experts roles and competences (Chichinadze, 1988; Jaliashvili, 1994; Booker & Meyer, 2005), but not indicated the concrete recomendations how to use the knowledge of the experts in order to forecast exactly any future develoment of a phenomena (business, political, etc). In order to make more and less forecasting in accordance with esperts' opinion we have to estimate the level of their competence (Bagaturia & Tabatadze, 2009, 2012).

The article offers the method of selection of analysts and establishment of competency by combined method of forecasting is performed on the basis of the expert competency assessment methodology (program). It uses such criteria of assessment for establishing the competence of the expert in concrete fields as: Education Quality; General Work Experience; Work Experience in specific field; Expert's experience; informational level of this field; Expert's efficiency that is mainly justified prediction of the analyst. Each criterion is estimated by points and expert's coefficient is assessed up to 50 points. Each assessment criteria includes sub-criterions with proper scores that are given in details:

Education Quality, Base - A

- "Formal Education" a person who finished only secondary school, 1 point;
- "Special Education" a person with higher professional education, 2 points;
- "University Education" a person who graduated from the University and is granted Bachelor's., Master's or similar Academic Degree, 3 points;
- "Higher School" a person who received higher education at High Institutions of Western European Countries and America and is granted Doctor's or similar Academic Degree, 5 points;

General Work Experience, Base - B

- "≤1 year" an expert's work experience till 1 year, 1 point;
- " $1 < X \le 5$ years" an expert's work experience more than 1 year, 2 points;
- " $5 < X \le 10$ years" an expert's work experience more than 5 years and is less than or equal to 10 years, 3 points;
- "> 10 years" an expert's professional experience more than 10 years, 5 points;

Work Experience in specific field, Base – C

• "≤1 year" – an expert's work experience till 1 year, 1 point;

- " $1 < X \le 5$ years" an expert's work experience more than 1 year and is less than or equal to 5 years, 3 points;
- " $5 < X \le 10$ years" an expert's work experience more than 5 years and is less than or equal to 10 years, 5 points;
- "> 10 years" an expert's professional experience more than 10 years, 10 points;

Expert's experience

- "never made an analyze" an expert has not studied any issues in the specific field that needed to be analyzed and forecasted, 0 point;
- "analyzes very seldom" an expert makes analyses in the specific field at least once in every three months, 2 points;
- "analyzes frequently" an expert makes analyses in the specific field at least once in every two months, 5 points;
- "analyzes every month" an expert makes analyses in the specific field at least once in a month, 10 points;

Awareness

- "has no information" the expert has no information about the research object, 0 point;
- "has general information" the expert has information about the research object easily available for everyone, 2 points;
- "has special information" the expert has special information about the research object not easily available for everyone and only known for limited number of people, 5 points;
- "has secret information" the expert knows or likely knows secret information about the research object, 10 points;

Expert effectiveness

- "not justified any forecasting" not justified any forecasting of the expert in specific field as well as other sphere he has forecasted, 0 point;
- "justified forecasting $\leq 25\%$ " justified the expert's all forecasting from 1% including 25%, 2 points;
- "justified forecasting $\leq 50\%$ " justified the expert's all forecasting from 26% including 50%, 5 points;
- "justified forecasting > 50%" justified the expert's all forecasting from 51% including 100%, 10 points;

In calculating the expert's coefficient it is considerable that one expert must not overweigh two experts by obtained coefficient rate. In addition, the spread method of estimating expert's competency level is so-called "Snow

Ball" method that envisages determining, by interview or in written, the persons' cycle that may have information on expert's potential candidate, analytics based upon their profession or "human candidates". The mutual-crossing assessment method is used for determining the competence of selected candidates. Each potential expert states the personality of those who is more competent in solving expert tasks. The method of ranging is also known that means to manifest a leader among the invited experts by means of ranging. During the ranging, the leader among the invited experts is shown by experts' inter-assessment and according to the iterations foreseen by granted points to each other. But more iteration is required for revealing an analyst with the highest expert's coefficient.

At using experts' assessment method, the more depends on analyst, invited expert in making a correct forecasting and effective decision. Correspondingly, the presented forms of experts' selection is less effective that fails to consider the established criteria of experts' assessment and the competence of an analyst is determined by general opinion without any established criteria and the probability of expert's subjective selection is very high. So, if an expert is not selected correctly, the usage of his conclusions and offered recommendations shall have less effect.

4. Conclusion

The Client is the first at using combined method of forecasting. He may be a person, group of persons, organization and etc. His function is to establish expert task and use expertise for solving the raised issues. Correspondingly, the clients of expertise are mainly managing subjects who are entitled in decision making. This fact in itself makes necessity to use the forecasting system in practice. The combined methodology of forecasting unifies the types of quantitative (mathematical-statistical) and expert forecasting methods. The combined method (system) of forecasting signifies the fact that the expert is the main figure of the forecasting, who uses both quantitative as well as expert forecasting methods to study and anticipate the possible phenomenon. The selection of experts is done according to the above given assessment criteria of expert's qualification level.

The usage of mentioned forecasting methodology with strategic planning is recommended for state as well as private business managing units. Forecasting is described as the necessity of making definite changes in strategic planning on the basis of studying the existing processes in organization and the organizational environment that secures the flexibility of the management system and high adaptability of company to the process of the existing organizational environment, which is necessary condition for success of any organization.

In addition, combined methodology of forecasting

may be used in political process analyses and forecasting, except of forecasting the rates of state and private business managing units. It may be discussed as a complex model of possible versions of political development. There are no clearly formulated and fixed assessment criteria for evaluating the political events. Such events are assessed by experts of this field and in many cases their subjective opinion and intuition plays great role in future forecasting. At studying and forecasting political process, in comparison with existing expert's assessment method, the fact that main leading figure is an expert, invited analyst who forecasts based upon his knowledge and experience is similar with combined system of forecasting. The main difference and at the same time the privilege of combined system of forecasting is that, at using methodology of forecasting, the expert applies mathematical-statistical (quantitative) as well as expert assessment methods in studying and analyzing. In addition, the selection of invited experts is done according to concrete assessment criteria that are not characteristic to pre-existing forecasting system.

References

- Bagaturia, G. (2009). Business Forecasting. Tbilisi. Georgia. International Black Sea University.
- Bagaturia, G. & Bagaturia, O. (2009). Strategic Planning for the Tasks of Public Administration and Business. Tbilisi. Georgia. The 21st.
- Bagaturia, G. (2009). Strategic Planning, Methodological Bases. Tbilisi. Georgia. Technical University.
- Bagaturia, G. & Tabatadze, M. (2009). Processing of Estimation Methods of Expert's Competence for Public Administration Objects. Magazine "Authority and Society" # 11. pp. 96-109.
- Bagaturia, G. & Tabatadze, M. (2012). Processing of Forecasting System for Public Governing Objects. Magazine "Authority and Society" # 21. pp. 4-20.
- Booker, J.M. & Meyer, M.M. (2005) Elicitation and Analysis of Expert Judgment. Los Alamos. USA.
- Chichinadze, V. (1988) Introduction to Theory of Administrative Management and Organization System. Tbilisi. Georgia. Tbilisi University.
- Jaliashvili, J. (1994) Theoretical Issues of Political Management and Forecasting. Tbilisi. Georgia. Georgian Republic F.S.