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Quantitative Assessment of Influence of Management Quality on Financial Results of Activity of Business Firm

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Abstract: The list of indicators of an assessment of quality of realization of various functions of the management, created by participating experts that included from 20 to 67 indicators characterizing separate administrative functions was offered each of them. The ranges of values of indicators specified in the table on a level of quality (outstanding, very high, high, average, low and very low) were determined as average opinion of the experts which analysis of opinions was carried out on a method of Delfi.

Key words: Quantitative assessment · Financial results of activity

INTRODUCTION

One of the most important problems of modern Russian management is irrational distribution of resources of control systems by enterprise firms owing to that the limited resources necessary for ensuring competitiveness of managing subjects, go not on implementation of the main and auxiliary processes, but on execution of functions of management within adoption of excessive or incorrect administrative decisions. Existence of this problem allowed formulating basic hypothesis of research according to which it is supposed that quality of performance of functions of management has impact on results of financial and economic activity of enterprise firm and such dependence can be quantitatively estimated and measured.

Businessman achievement of desirable economic and social result of activity of the structure created by him substantially depends on effectiveness of system of its management. Therefore, the tools, allowing carrying out quantitative measurement of efficiency of management of enterprise structure are necessary for the businessman. At the heart of an assessment of administrative efficiency lies the assessment of quality of accomplishment of basic general functions of management from positions of owners of the enterprise, created on the basis of the analysis of existing approaches to an assessment of quality of the management [1-6], corrected taking into account results of poll of managers and businessmen of 195 subjects of managing. The list of indicators of an assessment of quality of realization of various functions of the management, created by participating experts that included from 20 to 67 indicators characterizing separate administrative functions was offered each of them. The indicator joined in the list in case if it was mentioned by experts not less than three times. Further the correlation analysis of each of the selected indicators and productivity of administrative activity was carried out and only those criteria by which strong dependence was revealed were included in the final list. The list of the corresponding criteria characterizing quality of planning is provided in Table 1.

The ranges of values of indicators specified in the table on a level of quality (outstanding, very high, high, average, low and very low) were determined as average opinion of the experts which analysis of opinions was carried out on a method of Delfi.

The list of the indicators characterizing quality of accomplishment of function of the organization in management of enterprise structure is presented in Table 2. Procedure of formation of the list of indicators of quality of the organization and the corresponding ranges of values is similar to described above for planning.

The presented indicator of reliability of organizational communications and technique of its definition are offered by A.Smolkin [7]; coefficient duplication and an order of its assessment – A.Prigozhin [8]. The third presented indicator also is known, however within this research the alternative way of its definition which has been in detail described by authors earlier is offered [9].

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Table 1: Criteria of an assessment of quality of planning

		Assessment of quality of realization of function						Correlation coefficient with indicators
№	Indicator name	Outstanding	Very high	High	Medium	Low	Very low	of productivity of management
1	Accuracy of operational plans	± 0-0.5%	± 0,5-7%	± 7-15%	± 15-25%	± 25-35%	> 35%	+86.14%
2	Comparability / synchronization level	99-100%	90-99%	75-90%	65-75%	50-65%	= 50%	+71.12%
3	Compliance to external environment changes	99-100%	90-99%	75-90%	65-75%	50-65%	= 50%	+87.04%
4	Autonomy coefficient	0.49-0.51	0.4-0.49 or 0.51-0.56	0.35-0.4 or 0.6-0.7	0.7-0.9	0.2-0.35	=0.2 or=0.9	+72.58%

Table 2: Criteria of an assessment of quality of the organization

		Assessment of quality of realization of function						Correlation coefficient with
№	Indicator name	Outstanding	Very high	High	Medium	Low	Very low	indicators of productivity of management
1	Reliability of organizational communications	98,5-100%	90-98,5%	75-90%	65-75%	50-65%	=50%	+83.41%
2	Duplication coefficient	0-0,5%	0,5-5%	5-12%	12-18%	18-25%	>25%	-78.51%
3	Maximum standard of controllability	≥30	14-30	8-13	5-7	3-4	<3	+83.94%
4	Filling of cells of management	99-100%	95-99%	85-94.9%	75-84.9%	60-74.9%	<60% or >100%	+70.19%
5	Share of management expenses in the general expenses	<1%	1-7%	7-12%	12-20%	20-30%	>30%	-94.72%

Table 3: Criteria of an assessment of quality of control

		Assessment of quality of realization of function						Correlation coefficient with
№	Indicator name	Outstanding	Very high	High	Medium	Low	Very low	indicators of productivity of management
1	Structure of the deviations revealed	0.97-1.0/	0.7-0.97/	0.6-0.7/	0.4-0.6/	0.3-0.4/	0-0.3/	
	at various stages of control	0-0.05/	0.05-0.2/	0.05-0.3/	0.2-0.3/	0.2-0.4/	0.3-0.7/	
		0-0.01	0.01-0.1	0.01-0.2	0.1-0.3	0.3-0.7	0.3-0.7	+72.81%
2	Share of the changed indicators of control	0-0,5%	0,5-5%	5-7%	7-12%	12-20%	>20%	+80.76%
3	Share of the non-formalized indicators used in the course of control	0-0,5%	0,5-3%	3-5%	5-8%	8-15%	>15%	+88.21%
4	Level of internal transparency			See table 4				+92.65%
5	Ratio of overhead and production costs	<5%	5-25%	25-50%	50-80%	80-150%	>150%	-77.14%

Table 4: Assessment of level of internal transparency of activity of enterprise structure

Quality of control	Ratio of non-productive and production costs	Filling of cells of management at formation of the new	Number of cross checks at collection of information
Outstanding	< 5%	Full	0
Very high	5- 30%	95-99,9%	0
High	30-60%	90-95%	1
Medium	60-90%	80-90%	2
Low	90-110%	60-80%	3-4
Very low	> 110%	< 60% or >110%	> 4

Formed similar to procedure described above the list of indicators of an assessment of quality of control is presented in Table 3.

The first of the indicators presented in the table is compound and includes three private indicators: share of the deviations revealed at a stage of preliminary control (Spc); share of the deviations revealed at a stage of the current control (Scc); share of the deviations revealed at a stage of final control or by means of feedback (Scfc). This indicator is presented in the table in the Spc/Scc/Scfc format. Within the correlation analysis value of this indicator in a case when the maximum of deviations comes to light at a stage of preliminary control was considered as the maximum.

The second the indicator presented in the Table 6 characterizes stability of procedures of control applied by enterprise structure. This indicator was included in the list as instability of control procedures, on the one hand, doesn't allow to carry out the comparative analysis that complicates process of making of administrative decisions and, on the other hand, doesn't allow hired workers to make a clear idea that from them is required.

The similar logic dictated a choice of the third indicator of quality of control as non-formalized criteria at the heart of the are subjective. Measurement of level of internal transparency of activity of enterprise structure also demands the analysis of private indicators, as shown in Table 4.

The private criteria presented in table 4 are indirect characteristics of level of internal trust in the operating enterprise structure, being reflected in results of its activity. At last, the financial indicator of quality of control is the ratio of overhead and production costs.

Indicators of quality of the coordination, which list it is created according to the above described procedure, is presented in Table 5.

Table 5: Criteria of an assessment of quality of coordination

		Assessment of quality of realization of function						
№	Indicator name	Outstanding	Very high	High	Medium	Low	Very low	Coefficient of Correlation with indicators of productivity of management
1	Number of consecutive corrections of single process	0-0,5	0,5- 2	2-3	3-5	5-7	> 7	-83.06%
2	Reaction of system to occurring changes	Absolutely adequate	Adequate	A little exaggerated or diminished	Inadequate, exaggerated	Inadequate, more often diminished	Absent	+82.15%
3	Coefficient of the current liquidity	-	1.4-1.8	1.0-1.4	1.8-2.0	0.95-1.0 or 2.0-2.5	<0.95 or >2.5	+71.02%

Table 6: Ranges of motivation quality by criterion of stimulation adequacy.

Level of deviation of motivations and stimulation profiles	Assessment of quality
No	Outstanding
Practically absent	Very high
Insignificant, uniform on all 5 components of a motivational profile	High
Considerable deviation on 1 component	Medium
Considerable deviation on 2-3 conponents	Low
Considerable deviation on 4 or 5 components	Very low

Value of the first indicator is defined by a testing method in a framework of selection of the processes which are including main, auxiliary and administrative. It represents the average value of the received results (shares of the main, auxiliary and administrative processes in activity of enterprise structure act as scales). The second of the presented indicators is non-formalized and is defined by an expert way for the certain organization. This indicator was included in the list also because in the course of poll it was chosen by an absolute majority respondents (92,8%). At last, the coefficient of the current liquidity was chosen by experts as the financial characteristic of function of coordination as an indicator describing adequacy to reaction of a control system on changes of the external and internal environment in the short-term period.

The list of indicators of quality of the motivation, created within the described procedure and also ranges of their values. The first of the indicators given in the table is partially formalized, but at indistinct hit in a certain range for reference to a certain category of quality additional examination can be demanded. The second and third indicators are defined according to key provisions of the theory of motivation of Gerchikov within which the motivations most adequate for everyone type types of works and stimulation methods are offered. At interpretation of the second indicator it is supposed that 100% compliance of a profile of works and a motivational profile of workers assumes that all employees of enterprise structure are involved in performance optimum for them types of works.

The order of interpretation of the third indicator is presented in Table 6. Apparently from the provided table, this criterion also is non-formalized owing to the considerable individual differences peculiar to certain enterprise structures.

The fifth of presented criteria of quality of motivation characterizes degree of creativity of workers which, in turn, is the basis for growth of results of business activity. The financial characteristic of quality of motivation is labor productivity.

According to the list of basic general functions of management created in this research enterprise structure, one more function is formation and development of organizational culture. Indicators of an assessment of quality its realization chosen according to procedure described above.

The first and the second of the presented criteria and also a technique of their exact quantitative measurement are offered by R. Barrett [10]. The third criterion, value lever (by analogy with operational), was developed within the real research for an assessment of interrelation of dynamics of economic results of activity of enterprise structure and a level of development of organizational culture. Value lever characterizes, on how many percent will raise (fall) the profit on enterprise sales at increase (fall) for 1% of quantity of employees satisfied with values of the enterprise:

$$VL = \frac{\sum_{i=1}^{n} \frac{\Delta P_{sal}}{\Delta A_{evs}}}{n} * 100\% \quad (6),$$

where

VL - Valuable the lever,%;
i - Quantity of the analyzed periods;
ΔPsal - Change of profit on the sales, the received enterprise structure;
ΔAevs - Change of number of the hired workers sharing values of enterprise structure.

One more criterion characterizing quality of organizational culture – generated synergetic effect representing indirect characteristic of interaction of formal and informal structures of the organization. This criterion also is non-formalized and its assessment is carried out by expert methods. Chosen by respondents for an assessment of quality of realization of this function the criterion (profitability of sales) it's also the indirect characteristic of interaction of formal and informal structures of enterprise unit.

The list of the indicators characterizing quality of ensuring social responsibility of enterprise structure, created similar to previous groups of indicators.

It should be noted that taking into account the Russian specifics of business, the enterprise structure can be considered as socially responsible in case of full implementation of obligations to the personnel, suppliers, clients and society (when forming the list provided in Table 9 this approach was used). The first of the presented indicators is widely known and is the indirect measuring instrument of responsibility of the company before clients. On the basis of opinions of experts it was established that 7% level of corruption expenses corresponds to a maximum which needs to spend in some cases when observance of standard acts of all levels for certain types of enterprise structures is impossible (because of their internal contradictions).

Further, as violations of the employment contract and inadequate processing of claims is rather widespread phenomenon, the third and the fourth of the presented indicators are indirect characteristics of responsibility of enterprise structure. At last, the share of the transactions which are carried out by the enterprise for an advance payment, characterizes trust degree in enterprise structure and acts as the indirect characteristic of its social responsibility.

The assessment of quality of activity of enterprise structure control system begins with a mark assessment of management quality:

$$QP = \sum_{i=1}^{33} c_i \quad (7)$$

where

QP - Point of quality of management;
I - Serial number of the criterion characterizing quality of realization of one of functions of management, full list of which is given above (total of criteria – 33);
c - The point of quality got by enterprise structure on each individual sign (when receiving an assessment "outstanding" the control system is estimated at 8 points, "very high" - 5 points, "high" - 4 points, "average" - 3 points, "low" - 2 points and "very low" - 1 point).

Therefore, the maximum point which the usual (undistinguished) control system can receive makes 165 (33x5). This level will be a basis for an assessment of results of management.

Further, the importance of achievement of financial result within an assessment of management efficiency will be fixed according to the carried-out expert assessment, as follows:

- If the enterprise structure receives a loss at a stage of profit on sales, the assessment of quality of a control system goes down on 3 classes (60 points are subtracted from a score of QP). Then even at ideal indicators the assessment won't be higher than 4 classes that will correspond to a situation of sharp negative changes in external environment with which management couldn't cope.
- If the enterprise structure receives a loss on a profit level before payment of taxes and percent (EBIT), its assessment goes down on 2 classes (40 points are subtracted from a score of QP), that is at the highest rating quality of management will correspond to the 3rd class. In this case, in comparison with the first situation, losses are caused by non-core activity which management can affect to a lesser extent, than on the main, as assumes smaller adjustment from positions of quality of management.
- Emergence of a loss at the level of net profit is reflected in assessment of quality of management by decrease in a class of quality on 1 position (20 points are subtracted from a score of QP).

CONCLUSIONS

The received score allows to refer system of management to a certain class of quality: To 0 class there corresponds a score exceeding 165, 1 class – the sum from 146 to 165 points, to the 2nd class – from 126 to 146 points, to the 3rd class – from 106 to 125 points; To the 4th class – from 81 to 105 points, to the 5th class – the sum of 80 points and less.

These ranges also were determined on the basis of the expert assessment which has been carried out by a method of Delfi.

In conclusion of procedure on the basis of the reached profit level the result of activity of a control system of enterprise structure is defined:

$$Ef_{man} = \Pr * \frac{P_{fact}}{P_{\max}} \quad (8)$$

where

Ef_{man} - Result of activity of a control system of enterprise structure, thousand rubles;
Pr - Profit (any type), got by enterprise structure, thousand rubles;
P_{fact} - Mark assessment of quality of a control system of enterprise structure;
P_{max} - Maximum point of quality of usual management of enterprise structure (165).

Implementation of the offered procedure allows to receive an assessment of economic result of activity of a control system that is confirmation of a basic hypothesis of the this research. The offered technique can be used for an assessment of influence of quality of management considered as workmanship of set of functions of management, on financial result of activity of enterprise firm.

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