Developing organizational goals in view of SMAACT goals model criteria

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Abstract. The article is devoted to the study of goal setting methodology of a modern organization. This issue is relevant in the context of systemic changes of XXI century, as it generally leads to reassessing the philosophy of forming the management mechanism and goal setting methodology. Strategic management starts with the development of mission and goal setting. In order to set the goals it is necessary for any organization to determine the criteria in advance. A number of researchers have put forward theories regarding the issue of criteria for setting goals. This study outlines the approaches of the researchers including Andrew Grove (OKR), Edwin Locke and Garry Letham, Mark Murphy (HARD), David Van Roy (BSQ), Paul J. Meyer (SMART). Based on a comparative analysis of the approaches discussed in the article and other approaches, a unique approach for selecting criteria for the formation of SMAACT goals is proposed. According to the approach the goal should be specific, measurable, Act-small, achievable, controlling and time bound. In addition, based on the logic of complex strategic thinking, a matrix “goal – subgoal level – criterion” is formed. This matrix is the basis for creating the “Strategic Thinking Screen”. In the applied aspect, it allows an organization to form a systematic view of the compliance of goals and subgoals of all levels with the proposed six criteria (SMAACT).

1 Introduction

From a substantive point of view, consideration of theoretical and practical management problems mainly involves defining the mission, goals, principles and management methods which are the basic elements for the development of management processes, the definition of management technology and the formation of process-structural relations. Thus, the effectiveness of the management system is largely due to the stage of developing control mechanism elements (mission, goals, principles and methods) and depends on their correct definition.

While management theory is associated with the development of a methodology for the formation of a management mechanism and a multidimensional model of management processes with four components (content, organizational, technology-oriented and...
information-resource approaches), applied management is concerned with finding the most effective combination of these two components of the management system [1].

Strategic management occupied a special place in the system of management sciences in the second half of the 20th century. In the context of systemic changes, the formation of large-scale technologies and the development and implementation of artificial intelligence, the management system has to develop precisely in accordance with the philosophy of modern strategic thinking. Thus, when developing a management mechanism and its elements, one has to be based on new principles, a new philosophy of the mission, goals and methods of management [2].

Consideration of these elements of the management system contributes to the formulation and addressing to the question of what needs to be done in the management process? [3] Management goals are specific, which leads to an understanding of the trajectory of movement: how to define goals correctly, how to characterize them and how to identify the relationship between them.

Thus, the issues related to the problem of the development methodology and applied implementation of the system of goals in modern organizations are examined by the authors.

Igor Ansoff, one of the founders of strategic thought, devoted two chapters of “New Corporate Strategy” to the issue of developing a system of goals. The author argues that the activity of any organization is aimed at achieving goals, but in fact Ansoff, being a mathematician-economist, considered the process of forming these goals from the point of view of recoupment of goals and sets profit as the main goal [4], in contrast to P. Drucker, who prioritizes sets the goal of “survival of the organization” [5].

Both in theory and practice of management, a number of well-known authors have proposed some approaches to assess the criteria for goals and develop them. Generally, the mechanism for developing goals operates according to the concept of the “tree of goals”, proposed in 1957 by C. Churchman and R. Ackoff. This model is applicable for a specific division of goals into subgoals and tasks [6].

In practice, strategic decisions and goals are associated with the competitive actions of a modern organization (“a goal tree” gives rise to a “decision tree”), i.e. strategic goals reflect the overall strategy, and the goals reflect the desired result and are a “guide” to decisions and actions of a lower order [7].

Other authors made suggestions not only on the methodology for developing goals, but also on their criteria. Thus, the OKR (objectives and key results) goal setting methodology is relevant and practically widely applicable in the field of project management. The methodology was proposed in 1983 by Andrew Grove, President of Intel Corporation [8]. The OKR goal-setting methodology is used in modern high-tech organizations by Google, LinkedIn, etc. This methodology is effectively applied to project teams. According to this methodology, goals must meet the following qualitative criteria: ambitiousness, individual goals of employees, achievement of new results, attainability parameters, risk-taking. Thus, the OKR methodology is relevant from an applied point of view, but is not applicable to all areas of management.

In 1990, the criteria for goal setting were defined by Edwin Locke and Garry Letham, who identified five important criteria which include complexity, challenge (motivation for implementation), devotion, constant monitoring, clarity [9]. Thus, the authors focus not on maintaining the results of the organization, but on its development.

The founder of LeadershipIQ, Mark Murphy, published his HARD goal setting methodology in 2009 [10]. This methodology is an abbreviation of the words Heartfelt goal; Animated goal; Required goal; Difficult goal. This guide to goal setting is more applicable to the personal goals of individuals than to the strategic goals of the organization.
Another methodology for formulating goals for executives was proposed by the Vice President of Walmart Corporation — **David Van Rooy**. The BSQ methodology proposed by him reveals the following qualitative characteristics of goals: Think Big – think big; Act Small – constantly approach the goal in small steps; Move Quick – scheduling the fastest way to get there [11]. This methodology is relevant in modern conditions due to its dynamic nature.

The main criteria for assessing and monitoring goals are also two well-known methods: the **KPI** assessment methodology and the Kaplan and Norton balanced scorecard (BSC).

A more common method of criteria for setting goals is **SMART**, the origins of which can be attributed to the book “The Practice of Management” by an outstanding theorist in the field of management Peter Drucker (1954), where the author first focused on the content side of the issue of setting goals, emphasizing the importance of employee participation in goal setting, clarity of goal setting, etc. A detailed explanation of the criteria in practice in 1981 was determined in an article by George Doran, proposing the philosophy of SMART goals (specific, measurable, achievable, relevant, time bound [12]. The proposed methodology for formulating goals is used in the applied aspect and contributes to their correct setting and implementation. In the context of modern strategic changes, it is customary to add 2 more parameters to the abbreviation which include evaluate (evaluation and adjustment) and re-do (rework after evaluation) [13].

A comparative analysis of these and other approaches shows that modern trends in the development of managerial relations are most reflected in the **SMART (ER)** methodology which is more corrected from SMART and similar to the methodology of Walmart Vice President — **David Van Rooy**. The abovementioned classifications mostly characterize qualitative aspects (ambition, complexity, clarity, reality, visualization, etc.), while David Van Roy’s classification indicates the scale of thinking and the process nature of the formation and achievement of goals, which in modern conditions has importance. And the SMART(ER) classification takes into account such important criteria as: specificity, measurability, achievability and time limit. These methodologies allow the most comprehensive characterization of goals in modern conditions. However, a critical analysis shows that none of these concepts as a whole meets modern requirements, since it does not systematically reflect the content, organizational and technological aspects of process management and goal formation. Based on a comprehensive theoretical and comparative analysis of approaches to setting goals, a goal to form their own criteria, taking into account the change in the management paradigm in modern organizations is set by the authors.

## 2 Materials and methods

The fundamental goal of this study is to develop a better system of criteria for developing the goals of a modern organization, which more clearly correspond to the dynamic conditions of the 21st century. Based on a detailed theoretical and comparative analysis of existing concepts for developing goals, the authors carried out a critical analysis of the parameters of each model, followed by the identification of limitations in the considered models. Thus, a systematic analysis of the concepts for the formation of the above criteria allowed the authors to propose a more holistic classification, develop a “goal-level of sub-goals-criteria” matrix and substantiate the need for the concept of developing the goals of a modern organization based on the proposed SMACT-goal model. The model allows considering the processability and dynamism of management in modern times. The authors’ ideas will further develop towards the formation of an integral system for developing an organization’s strategy in the context of process management and the creation of a “Strategic Thinking Screen”, which will fully reflect the picture of the organization’s goals system for strategy formation.
3 Results

The logic for achieving and implementing goals is proposed for modern organizations: the criteria from the SMART goals model in the era of systemic changes can only be implemented by developing optimal step-by-step transitions in the vertical of splitting goals (to goals of I, II and n-th order), which is indicated in the model “tree of goals” and what is relevant in terms of process management. In addition, the traceability of the process of formation and implementation of goals is an important applied criterion [14]. Taking into account the above approaches and based on our many years of experience in the practical development of strategic development goals for large companies (in particular in the banking sector), an applied methodology for developing strategic goals for organizations is proposed. Following the logic, the organizational process of developing goals should include the following steps:

1. Optimization of the constituent criteria of the SMAACT methodology and specification of their meaning (Table 1).
2. Defining the criteria for each organization, taking into account the characteristics of specific organizations and their specific goals.
3. Taking into account the logic of the formation of the “tree-goals”, proposed by Ch. Churchman and R. Ackoff, for each goal and sub-goal, determine at what level and what criteria are most important for the formation of their content.
4. Creation of the “Strategic Thinking Screen” based on the matrix “goals of the organization – level of subgoals – criteria”, which contributes to the definition of a step-by-step process for the formation of specific goals and subgoals (Table 2).

The proposed concept of goal setting for modern organizations should have the following criteria: Specific, Measurable, Act small, Achievable, Controlling, Time bound (SMAACT) (Table 1).

Table 1. Proposed criteria and their role in the SMAACT goal model.

<table>
<thead>
<tr>
<th>Criterion</th>
<th>The role of the criterion</th>
<th>Risk</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPECIFIC</td>
<td>The goal should be simple and clear</td>
<td>Different perceptions of the same goal</td>
</tr>
<tr>
<td>MEASURABLE</td>
<td>The goal should have a numerical expression (for example, a percentage), thus determining the exact KPIs, the achievement of which can really be controlled</td>
<td>Abstractness excludes the possibility of tracking the dynamics and degree of goal feasibility</td>
</tr>
<tr>
<td>Act Small</td>
<td>It is necessary to determine subsequent smaller subgoals and subtasks arising from higher goals</td>
<td>It is impossible to form a “decision tree” without having a specific picture of the “goal tree”</td>
</tr>
<tr>
<td>ACHIEVABLE</td>
<td>It is necessary to assess whether the resources for achieving the goal correspond, but in addition, it is necessary to assess whether the achievement of the goal is worth the resources spent on it</td>
<td>Setting unrealistic goals leads to the omission of alternative goals, and therefore to disorganization</td>
</tr>
<tr>
<td>CONTROLLING</td>
<td>The goal must be trackable over time and undergo constant controlling and evaluation</td>
<td>“Incremental” evaluation reduces the risk of failure</td>
</tr>
</tbody>
</table>
In the goal-sub-goal level-criteria matrix (Table 2), the classification of goals depends on the nature of the particular organization.

Table 2. The matrix “goals of the organization – subgoal level – criteria”.

| Organizational goals | Subgoal Level | SP | E | C | I | F | C | M | E | A | S | U | R | A | B | L | E | Ac | t | S | m | all | A | C | H | I | E | V | A | B | L | E | C | O | N | T | R | O | L | L | I | N | G | Tl | M | E | B | O | U | N | D |
| Commercial           | I order       | a₁₁ | a₁₂ | a₁₃ | a₁₄ | a₁₅ | a₁₆ |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     | \_ |
|                      | II order      | a₂₁ | a₂₂ | a₂₃ | a₂₄ | a₂₅ | a₂₆ |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     | \_ |
|                      | ...           | ... | ... | ... | ... | ... | ... |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     | \_ |
|                      | n-order       | aₙ₁ | aₙ₂ | aₙ₃ | aₙ₄ | aₙ₅ | aₙ₆ |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     | \_ |
| Marketing            | I order       | c₁₁ | c₁₂ | c₁₃ | c₁₄ | c₁₅ | c₁₆ |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     | \_ |
|                      | II order      | c₂₁ | c₂₂ | c₂₃ | c₂₄ | c₂₅ | c₂₆ |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     | \_ |
|                      | ...           | ... | ... | ... | ... | ... | ... |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     | \_ |
|                      | i-order       | cᵢ₁ | cᵢ₂ | cᵢ₃ | cᵢ₄ | cᵢ₅ | cᵢ₆ |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     | \_ |
| HR management        | I order       | d₁₁ | d₁₂ | d₁₃ | d₁₄ | d₁₅ | d₁₆ |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     | \_ |
|                      | II order      | d₂₁ | d₂₂ | d₂₃ | d₂₄ | d₂₅ | d₂₆ |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     | \_ |
|                      | ...           | ... | ... | ... | ... | ... | ... |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     | \_ |
|                      | q-order       | dᵢ₁ | dᵢ₂ | dᵢ₃ | dᵢ₄ | dᵢ₅ | dᵢ₆ |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     | \_ |
| Logistics            | I order       | e₁₁ | e₁₂ | e₁₃ | e₁₄ | e₁₅ | e₁₆ |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     | \_ |
|                      | II order      | e₂₁ | e₂₂ | e₂₃ | e₂₄ | e₂₅ | e₂₆ |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     | \_ |
|                      | ...           | ... | ... | ... | ... | ... | ... |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     | \_ |
|                      | j-order       | eᵢ₁ | eᵢ₂ | eᵢ₃ | eᵢ₄ | eᵢ₅ | eᵢ₆ |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     | \_ |

Filling in the appropriate cells of the matrix allows management to get a visual representation of the existing goals and determine their effectiveness in relation to the sub-goals of each order.

It is supposed to reveal the meaning of the matrix data as follows:

a₁₁ – compliance of the commercial goal of the I order with the criterion of specificity, which reflects the fact that the goal expresses a specific result, for example, by the end of the month to increase sales revenue by 1.5 times.

c₂₅ – compliance of the marketing goal of the II order with the criterion of time limitation, for example, to place advertising stands in 10 days.

dᵢ₅ – compliance of the q-th order HRM goal with the criterion of traceability in the process, etc.

4 Discussion
The more SMAACT criteria a goal meets, the more effective it is. Thus, in the applied aspect, a matrix will be obtained, and then a “Strategic Thinking Screen” can be developed. The essence of “Strategic Thinking Screen” is to form a dynamic mechanism for developing an organization’s strategy in terms of process management. To do this, a commercial organization:

- develops a certain standard for the classification of processes and business processes,
- based on the main goals of the organization, using a comparative analysis of international best practices, taking into account the development of digital management, proposes a new draft of processes and business processes of strategic development, reflecting all subsequent steps in the formation of the organization’s strategy, which are justified by specific criteria.

Thus, the step-by-step formation of a strategic goal and controlling this process with the help of appropriate criteria brings specificity to the methodology for creating a strategy, which is essential for the implementation of digital management.

5 Conclusion

Considering the matrix based on a combination of three key nodes including “goal – subgoal level – “correctness” criterion”, an organization strategy, where each goal that meets the criteria will be implemented with greater efficiency can be systematically developed in applied management. The “strategic thinking screen” is practically effective as it promotes complex goal setting due to its universality and adaptability to the specifics of organizations [15].

Thus, goals, as an element of the management mechanism, are a guide to the implementation of actions. Goal setting methodology which involves concretizing the criteria for evaluating goals and checking them for compliance is of particular importance for modern organizations. The SMAACT model proposed in the article and the development of the “Strategic Thinking Screen” are elements of goal setting, their systematization and implementation.

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