

Andreichikov O. (2026). Development of a systemological method for measuring intellectual capital of IT companies using the Fibonacci sequence. *Technology Audit and Production Reserves*, 1(2(87)), 25–35.

The object of research is the intellectual capital (IC) of IT companies. From the perspective of systemology, IC is conceptualized as a system formed from sub-systems and embedded within a meta-system. The ability of a system to adapt to the functional need of the meta-system, within the framework of systemology, is described by the key characteristic of the degree of systemization (μ_s), which reflects the degree of correspondence between the system's current properties and the functional need of the meta-system. That is, it serves as a criterion for the adaptability of the object (the IT company) to the functional need of the meta-object (the IT market). Thus, it is not simply the IC as a set of elements that is being studied, but rather their capacity for functional adaptation, which enables IT companies to meet current market demands. The problem addressed lies in the absence of an objective and systemically coherent method for measuring IC of IT companies. The key methodological contradiction within extant approaches manifests as a discrepancy between component and holistic methods. In the course of this research, a systemological Fibonacci-oriented method for measuring IC was developed and substantiated. A nonlinear weighting function, constructed upon the harmonic ratios of the Fibonacci sequence. The final measurement is based on determining the measure of degree of systemization (μ_s), which constitutes a one-dimensional projection of the multidimensional state-space of IC onto a scale within the range $[0; 1]$ ($\mu_s \in [0; 1]$). This provides for the objective classification of any unique IC profile of IT companies. The primary practical value of the method lies in its applicability for constructing an adaptive rating system for IT companies, featuring full automation and integration into expert-analytical software complexes.

intellectual capital measurement, degree of systemization, systemological assessment method, IT companies, Fibonacci sequence