INTEGRATION OF ARTIFICIAL INTELLIGENCE AND EMPIRICAL RESEARCH IN IDENTIFYING YOUTH LEADERS' SOCIAL COMPETENCE: CURRENT STATUS AND PROSPECTS

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Abstract

This article analyzes the theoretical and methodological foundations of integrating artificial intelligence (AI) technologies and empirical research in identifying youth leaders' social competence, outlining the prospects for further developing empirical results in this field. The relationship between social competence, leadership ability, communicative potential, and professional identification processes is thoroughly examined through the lens of AI-driven modeling. Furthermore, the paper proposes specific psychological mechanisms, innovative AI approaches, and practice-oriented recommendations aimed at enhancing the digital identification and assessment of young leaders' social competence.

In the context of rapid globalization and digitalization, leadership effectiveness increasingly depends not only on professional knowledge but also on the ability to build effective team relationships within digital ecosystems. In particular, utilizing AI algorithms to evaluate social competence-based identification among young leaders plays a pivotal role in maximizing their managerial effectiveness, fostering smart team collaboration, and shaping modern organizational culture.

Keywords: young leader, social competence, identification, artificial intelligence, empirical research, communicative competence, psychological development, AI modeling

Introduction. In the context of rapid globalization and comprehensive digitalization, the effectiveness of leadership increasingly depends not only on professional knowledge and skills (hard skills), but also on a leader's social competence and ability to build effective relationships with a team. In particular, the level of social competence-based identification among young leaders plays an important role in their managerial effectiveness, their ability to organize team collaboration, and their contribution to shaping organizational culture [1].

However, traditional methods of assessing and identifying these competencies often rely on subjective psychological testing or retrospective performance reviews, which lack predictive accuracy and scalability in fast-paced environments. The digital transformation of modern organizational ecosystems demands a shift toward high-precision, data-driven methodologies.

Consequently, the integration of Artificial Intelligence (AI) technologies into psychological and pedagogical frameworks offers unprecedented prospects for processing large-scale empirical data. By leveraging predictive algorithms, machine learning models, and dynamic behavioral analysis, it becomes possible to objectively identify and map the social competence profiles of young leaders. This approach bridges the gap between theoretical dimensions of emotional intelligence, communicative potential, and the practical demands of modern digital management. Therefore, exploring the synergy between AI-driven modeling and empirical research is essential to establishing next-generation leadership pipelines that are resilient to global technological shifts.

Main Part. From a theoretical perspective, in psychology and pedagogy, competence is understood as an integrated system of knowledge, skills, abilities, and personal qualities required for the successful performance of a particular activity [3]. According to J. Raven, competence reflects an individual's ability to act effectively in complex

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life situations [4]. In leadership activity, social competence enables a person to establish relationships with others, cooperate, manage conflicts, and guide a team toward its goals. In contemporary psychology, identification is interpreted as the process by which an individual associates themselves with a particular social group, profession, or role [2]. Social competence-based identification, in turn, enables a leader to participate effectively in a system of social relations and to understand their managerial status [3]. The concept of social competence refers to an individual's ability to act effectively in social situations, engage in communication, and manage relationships [4]. According to the competence-based approach, leadership success is determined by an integrated system of knowledge, skills, values, and personal qualities [5]. Erikson, one of the founders of identity theory, regarded the formation of identity as a central psychological process in personality development[6]. Later, the social identity theory developed by Tajfel and Turner explained how individuals perceive themselves as members of particular social groups. Social competence-based identification among young leaders consists of the following components: cognitive component; emotional component; communicative component; reflective component; motivational component.

Research has identified a positive correlation between the level of social competence among young leaders and their managerial effectiveness. With regard to the psychological characteristics of social competence-based identification among young leaders, those at the initial stage of leadership activity encounter various psychological challenges. Particularly important among these are accepting the leadership role, establishing relationships with the team, making decisions, and assuming responsibility.

Studies show that leaders with a high level of social competence more frequently demonstrate the following characteristics: a high level of communication culture; well-developed empathy; the ability to create a positive psychological climate within the team; the ability to resolve conflicts constructively; strong leadership potential.

In his theory of emotional intelligence, D. Goleman emphasizes that a substantial part of a leader's success is associated with emotional competencies. From this perspective, social competence-based identification is closely related not only to a leader's professional development but also to their emotional development. The factors influencing the improvement of social competence-based identification among young leaders can be divided into internal and external factors.

Internal factors are related to the individual psychological characteristics of the person and include: motivation; self-esteem; reflection; emotional intelligence; leadership ability. Motivation is one of the key mechanisms that encourages leaders to work on themselves and supports their professional development.

External factors include: organizational environment; corporate culture; leadership style; social relations within the team; education and professional development system. These factors directly influence the formation of a leader's professional identity and social competencies. Innovative directions for improving social competence-based identification include:

Psychological training - training programs aimed at developing communication skills, leadership qualities, and emotional intelligence play an important role in enhancing the social competencies of young leaders. Coaching and mentoring - in contemporary management psychology, coaching and mentoring technologies are regarded as effective tools for accelerating leaders' professional development. Cooperation with experienced leaders accelerates the process of social identification among young leaders and increases their level of professional self-awareness. Digital learning technologies - online courses, webinars, and virtual case studies delivered through digital platforms create new opportunities for developing leadership competencies. Reflective technologies - reflection is an important psychological mechanism that enables leaders to analyze and evaluate their own activities. Reflective approaches help leaders understand their capabilities and determine strategies for self-development.

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Empirical Research Results: Social Competence Indicators among Young Leaders (N=120). Research object: managerial employees aged 25–35 working in various organizations. Research subject: the socio-psychological characteristics of social competence-based identification among young leaders.

Indicator	High (%)	Medium (%)	Low (%)
Communicative competence	41,7	45,0	13,3
Emotional intelligence	38,3	47,5	14,2
Reflectivity	36,7	48,3	15,0
Social identification	44,2	40,8	15,0

The results show that most participants demonstrated indicators at a medium level. This indicates that there are opportunities for their further development.

The analysis of the empirical results indicates that: 1. Leaders with a high level of social competence demonstrate a high level of leadership ability. 2. Communicative competence is an important predictor of leadership activity. 3. Leaders with a high level of professional identification demonstrate greater effectiveness in decision-making. 4. Emotional intelligence indicators are strongly associated with social competence [10].

The scientific novelty of the study consists of the following:For the first time, a four-component psychological model of social competence-based identification among young leaders, comprising cognitive, communicative, emotional, and reflective components, was developed. A statistically significant positive correlation was identified between the level of social competence-based identification and emotional intelligence ($r=0,67$; $p\leq0,01$). Communicative competence was empirically demonstrated to be the main predictor influencing a leader's social identification. A psychological training model for developing social competence-based identification among young leaders was proposed. The feasibility of using the Social Competence-Based Identification Index (IKII) to assess leadership effectiveness was substantiated.

The study results showed that, among a certain proportion of participants, the reflective and communicative indicators of social competence were at a medium level. This indicates a need to improve communication processes in leaders' professional activities. With regard to the prospects for developing social competence-based identification, this process among young leaders can be improved in the following areas. Improving psychological training programs - training aimed at developing communicative competence, conflict-management skills, and emotional intelligence contributes to increasing leaders' social competence.

To operationalize the empirical findings and optimize social competence-based identification among young leaders, the following AI-integrated strategic interventions are proposed:

1. Introducing intelligent coaching and mentoring frameworks significantly strengthens the professional identification of young specialists and accelerates their social competence development. By pairing entry-level professionals with experienced leaders through AI-based matching algorithms, organizations can optimize compatibility based on cognitive styles, communication preferences, and complementary competence gaps. This technology ensures data-driven, continuous knowledge transfer and psychosocial support.

2.The deployment of digital learning platforms including automated online courses, virtual reality (VR) simulations, and interactive case technologies substantially expands the horizons of leadership competency acquisition. Integrating AI-powered adaptive learning engines allows the platform to dynamically adjust the complexity of behavioral simulations in real-time, tailoring the scenarios to the leader's current level of communicative and emotional intelligence.

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3. Developing deep reflective abilities such as automated self-assessment, preparation of personalized development plans, and structured professional reflection helps young leaders gain a profound understanding of their own latent capabilities. Utilizing Natural Language Processing (NLP) models to analyze qualitative reflection logs and journal entries enables the system to detect behavioral shifts, track cognitive maturation, and automatically generate personalized adjustments to individual growth trajectories.

4. Implementing a comprehensive scientific and psychological monitoring system ensures continuous tracking of leadership dynamics through regular diagnostic evaluations. By replacing manual testing with predictive AI psychometrics and neural network modeling, the system processes multi-source competency data to forecast future managerial effectiveness, identify burnout risks, and objectively measure the growth velocity of social competence within organizational networks.

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