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AN EMPIRICAL ANALYSIS OF THE COMPETENCIES OF MANAGEMENT CONSULTANTS IN NORTHEAST HUNGARY BETWEEN 2001–2021

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Abstract

This study examines the evolving competencies of management consultants in Northeast Hungary from 2001 to 2021 and proposes a comprehensive consultant competence model based on a 20-year longitudinal analysis. The research combines questionnaire surveys (conducted in 2001 and 2005–2006) with in-depth interviews involving consultants and clients during 2011–2012, 2015–2016, and 2020–2021, analysed using SPSS 30.0. Findings reveal significant transformations in consultant competencies over the two decades, shaped by the region's socio-economic evolution. Notably, perceptions of consultant competence remained stable between consultants and entrepreneurs, with minimal discrepancies. However, digital skills showed no notable improvement after 2006, including during the COVID-19 pandemic, highlighting a persistent gap in digital readiness. The consultant competence model identifies five critical factors: change and collaboration skills; experience, social competence, and loyalty; strategic thinking and communication skills; project-oriented approaches; and advisory authority.

Implications for Central European audience: The theoretical section synthesises management consulting theories, competency frameworks, and essential consulting roles, along with a review of international literature, and summarises empirical studies previously conducted in this field. The practical section presents a competence model derived from this longitudinal research, offering applications for university curricula and professional training programs organised by industry associations. This model has broader relevance for enhancing consultant training across Central Europe.

Keywords: competencies; empirical study; management consultant; Northeast Hungary
JEL Classification: L84, M53, O15

Introduction

In Eastern European ex-socialist countries, including Hungary, consulting services were traditionally provided by government sectoral research institutes, universities, or ministries

prior to the political transitions of the late 1980s (Kubr, 1996). Since then, management consultancy has emerged as a dynamic and growing industry in Hungary and across Eastern Europe, with notable acceleration following Hungary's EU accession in 2004. Globally, the management consulting industry generated $634 billion in annual revenue in 2018, with the European consulting sector contributing 28%, or $177.5 billion (Szeiner et al., 2020). Within the Central and Eastern European (CEE) region, the consultancy market experienced robust growth, achieving a 5% annual growth rate between 2012 and 2018, with an estimated annual turnover of $3.5 billion (Poór et al., 2020c). However, Hungary's management consulting turnover per professional (€85,600) lagged behind the European average of €197,000 during 2017-2019 (FEACO, 2019).

While the literature on consultancy extensively explores its interpretation, history, and diverse characteristics (Kipping & Clark, 2012), research on sector-specific trends and quantitative development, particularly in Central and Eastern Europe, remains limited (Szeiner et al., 2020; Poór et al., 2022). Over the past two decades, socio-economic changes such as the COVID-19 pandemic, technological advancements, Industry 4.0, and the rise of the circular economy have begun to reshape the competencies required of management consultants in Northeast Hungary. Despite this, empirical studies examining the competencies of consultants in the region remain scarce and often neglect the dynamics of change.

In addition, consulting courses are offered at only a limited number of universities and colleges in Central and Eastern Europe (Poór et al., 2022). Ensuring the competence of consultants and fostering their continuous development are critical for delivering high-quality advisory services. Moreover, clients' awareness of consultants' competencies is essential, as it forms the foundation of effective collaboration. This paper aims to address these gaps by identifying the competencies of management consultants in Northeast Hungary over the period 2001 to 2021.

A foundational study on consultant competencies was conducted by Höselbarth (2000), who identified 21 attributes in a representative survey in Germany. Building on this, the current study applies Höselbarth's criteria system to examine the competencies of management consultants in Northeast Hungary. The research addresses the following questions:

- What are the main competencies of management consultants according to the value systems of consultants and entrepreneurs? What trends can be observed in the development of competencies over the 20-year period?
- Is there a difference in consultants' competencies as perceived by consultants themselves and by entrepreneurs?

The theoretical section of this paper synthesises management consulting theories, competency frameworks, and roles critical for effective consulting, alongside empirical studies from international literature. Hypotheses are formulated at the conclusion of the theoretical section.

The subsequent section outlines the objectives and methodology of the empirical research conducted in Northeast Hungary in 2001, 2005–2006, 2010–2011, 2015–2016, and 2020–2021. The results of the analysis are then presented, with hypotheses tested using

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independence tests and variance analysis at a 5% significance level, a standard threshold in social science research. Finally, the study develops a consultant competency model based on a 20-year longitudinal database, utilising factor analysis.

1 Literature review

1.1 Overview of the various approaches to management consulting and defining the competencies of consultants

Experts have adopted three distinct approaches to defining the term "management consulting," in addition to the differences in semantics and stylistic conventions.

The first approach emphasises the consultant's role as a helper, tasked with assisting managers and other individuals in solving problems (Block, 2000, p. 2). Fritz Steele defines consultancy as any form of assistance with the content, process, or sequence of tasks, where the consultant is not responsible for the task itself but provides support to the staff (Steele, 1975). To deliver effective assistance, consultants must possess fundamental competencies alongside a willingness to help. Key competencies include social competence, ethical behaviour, loyalty to clients, asceticism (e.g., being available, prioritising client needs, and "living for the client"), and the ability to foster a balanced atmosphere, including maintaining positive relationships within teams and organisations (Höselbarth, 2000; Tokár-Szadai, 2013; Poór et al., 2020a, b).

The second approach views consulting as a specialised profession. Management consulting is defined as an advisory service contracted for and provided to organisations by specially trained and qualified individuals. These professionals assist clients in identifying management problems, analysing them, recommending solutions, and, if requested, aiding in the implementation of these solutions (Greiner & Metzger, 1983, p. 7). Milan Kubr further defines management consultancy as an independent expert service provided to organisations and their leaders to help achieve their goals. This includes identifying and resolving problems, exploring new opportunities, acquiring necessary skills, and implementing change (Kubr, 2002). To deliver expert services effectively, consultants need core competencies beyond technical expertise, methodological knowledge, and practical experience. These include strategic thinking, change management skills, entrepreneurial abilities, courage (openness to innovation), vision, project management expertise, cost-benefit analysis, and implementation skills (Höselbarth, 2000; Tokár-Szadai, 2013; Poór et al., 2020a, b).

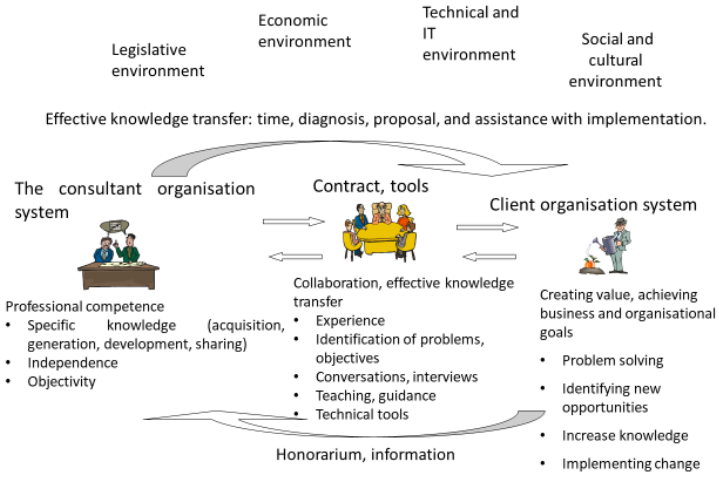
The European Federation of Management Consultancies Associations (FEACO) combines elements of the two previous approaches in its definition of management consulting. A management consultant is described as a provider of assistance, supporter, spokesperson, creator of opportunities, problem solver, and decision maker (FEACO, 2024).

The third approach focuses on the interaction between actors. Lippit defined consulting as an effective "helping relationship" between client and consultant, characterised by a problem-oriented interaction process (Lippit & Lippit, 1977). Vogelsang views

management consulting as a universal consultancy service ("Universalberatung"). He stresses that to achieve optimal results, it is essential to consider the interdependencies and network connections unique to each case (Vogelsang, 1992). Wohlgemuth defines management consulting as a project-oriented, interactional process between representatives of the client and consultant systems (Wohlgemuth, 2005). He highlights three key aspects of management consulting: institutional, functional, and instrumental dimensions (Wohlgemuth, 1991). Interaction forms the foundation of effective collaboration between consultants and clients. To ensure success, consultants must demonstrate core competencies, including communication skills, openness to information technology, participatory leadership, team spirit, and conflict management abilities (Höselbarth, 2000; Tokár-Szadai, 2013; Poór et al., 2020a, b).

Building on these theoretical approaches, a model of the business consulting system was developed (Tokár-Szadai, 2012). This model conceptualises the business consulting system from five distinct perspectives, presenting it as a system of interactions between actors and factors. An enhanced version of the model, which places knowledge management at its core, is depicted in Figure 1.

Figure 1 | A conceptual model of a management consultancy system



Source: Tokár-Szadai (2012), which has been supplemented and improved

The objective of the client in creating value serves as the fundamental rationale behind the entire consultancy process. Consultants deliver value to their clients through two key factors: their objectivity and their methodological knowledge and practice. Their primary goal is to acquire, generate, and develop knowledge while ensuring effective knowledge sharing. Geffroy and Schulz (2015) argue that consultants do not need to be omniscient but should demonstrate expertise, focus, distinction, and insight to address a range of consulting tasks effectively.

In addition to applying their existing knowledge in value co-production with clients, KIBS firms (knowledge-intensive business service firms) are tasked with developing new

knowledge and continuously enhancing their knowledge base (Skjolsvik et al., 2007, p. 111). Earlier research (Glückler & Armbrüster, 2003; Mitchell et al., 2003; Pemer & Werr, 2013) identifies three categories of uncertainties that clients face when utilising management consulting services: performance uncertainty, relational uncertainty, and psychosocial uncertainty. To justify their use of consultants, clients must address these uncertainties in relation to both themselves and their external environment (Bäcklund & Werr, 2008).

The success of a consultant hinges on their possession of a distinct set of competencies. Theories of competency stem from the foundational work of Klemp and McClelland (1986), who identified the characteristics that differentiate successful individuals from less successful ones. They mapped out the thought patterns and behaviours causally linked to successful performance (Zöllei, 2006). Since the early 2000s, most consulting firms have incorporated competency-based personal development into their human resource management practices. While McClelland's original model primarily emphasised behavioural traits, a modified version of the KAS model (Knowledge, Ability, Skills) is now widely used, often augmented with additional elements (Poór, 2005).

The classical literature on management consulting (Kubr, 2002; Poór, 2010) outlines two distinct consulting roles. The first is resource consulting (Drucker, 1979, pp. 475–476), where consultants use their specific expertise and experience to assist clients. This includes gathering information, designing new systems, proposing solutions, persuading the client of their appropriateness, and, when necessary, aiding in implementation. The second is process consulting (Lewin, 1933), where consultants assist organisations in resolving their own issues. Process consultants do not propose solutions but provide methodologies to help clients identify and address their problems independently. As Schein (1969, p. 5) notes, "a true process consultant diagnoses the problem together with their client."

In contemporary literature (Brooks & Edwards, 2014; Poór et al., 2022), a third model, the Inquiry Model, has emerged in response to the challenges posed by an increasingly complex and uncertain environment. This model complements the two classical approaches—the Expert Consultant and Process Consultant models. According to Poór et al. (2022), consultants can now be classified into three major groups:

Expert Consultants: These consultants utilise their expertise and experience to propose solutions. They validate these solutions with the client and often help with implementation.

Process Consultants: These consultants assist clients in identifying solutions by employing methodologies that encourage creativity within the client's workforce, enabling them to implement the solutions independently.

Inquiry Consultants: This approach fosters a more personal and direct relationship between the consultant and the client, evolving throughout the consulting process.

Brooks and Edwards (2014) provide a detailed comparison of the three models, distinguishing their features and roles. The Advice Model, Process Model, and Inquiry Model differ in the nature of the consultant-client relationship and how client goals are achieved. The Inquiry Model, in particular, emphasises collaboration between the

consultant and client to co-create the knowledge necessary for achieving the desired outcome. This partnership leverages different forms of expertise to address both the technical and human dimensions of change effectively (Brooks & Edwards, 2014).

1.2 A review of empirical studies on management consultants' competencies

Previous research has identified numerous competencies associated with managerial success, as evidenced by the works of prominent scholars such as Boyatzis (1982), Campbell et al. (1970), Goleman (1998), Klemp and McClelland (1986), and Kotter (1982). Recent studies confirm the validity and utility of intellectual competencies, such as analytical and conceptual thinking, in predicting managerial success (e.g., Boyatzis, 2006; Ryan et al., 2009). For instance, Sahin et al. (2014) examined the relationship between managerial resourcefulness and job performance in a sample of 119 first-line and middle managers, finding a positive correlation between managerial resourcefulness and superior job performance ratings.

However, empirical research specifically focusing on the competencies of management consultants is relatively limited. In a 1997 study, Woog and Rüeger surveyed 120 medium-sized Swiss companies to investigate the requirements for management consultancy. Their findings revealed that, in addition to practical and technical knowledge, social competence, such as the consultant's personality and trustworthy behaviour, is of high importance. This suggests that effective management consultancy requires consultants to solve problems in a client- and solution-oriented manner (Woog & Rüeger, 1997).

Kubr (1993) identifies eight key competencies that consultants must possess to achieve success: intellectual abilities, the capacity to understand and engage with others, communication skills, the ability to persuade and motivate, emotional and intellectual maturity, personal ambition and initiative, ethical conduct and integrity, and physical and mental health.

The European Federation of Management Consultancies Associations (FEACO) has conducted annual surveys on the European consultancy market since 1998 (FEACO, 1998–2024). While these surveys facilitate the examination of long-term trends, they do not directly address the issue of consultancy competencies. Moreover, methodological changes in 2005 and 2014 have limited the comparability of the data, and not all reports provide detailed data for Hungary (FEACO, 2014–15, 2015–16).

Research into the competencies of consultants in Borsod-Abaúj-Zemplén County, Hungary, was conducted based on surveys carried out in 2001 and 2005–06 (Tokár-Szadai, 2013). Additionally, the Budapest Chamber of Industry and Commerce's 2018–19 survey on the state of management consultancy in Hungary examined the competencies of consultants from the perspectives of both clients (Poór et al., 2020a) and consultants themselves (Poór et al., 2020b). However, these research reports, covering only the 2018–19 period, are not suitable for making long-term comparisons or assessing change over time.

A representative survey of 623 senior managers and consultants in Germany, conducted between October and December 1999, examined the characteristics of managers and consultants and their changes over the preceding seven years based on 21 criteria, including communication ability, strategic approach, ethics, project management,

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entrepreneurial mindset, courage, cost-benefit perspective, openness to IT, implementation skills, participatory leadership, vision, change management, conflict management skills, team spirit, loyalty, self-leadership, balanced family atmosphere, social competence, age, asceticism, and authoritarian leadership (Höselbarth, 2000).

In both the 2018–19 surveys conducted by the Budapest Chamber of Industry and Commerce (Poór et al., 2020a, b) and this study's empirical research, Höselbarth's system of criteria was employed to identify and analyse the competencies exhibited by management consultants.

The objective of this study is to identify the competencies of management consultants in Northeast Hungary between 2001 and 2021.

In light of the international literature and empirical surveys, the following research hypotheses are proposed. These hypotheses assume that the evolution of local consultants' competencies mirrors trends observed in the international literature on consulting services (Table 1).

Table 1 | The establishment of research questions and hypotheses

Proper research goal: to identify the competencies of management consultants in Northeast Hungary between 2001 and 2021	
Höselbarth's system of criteria is adopted (Höselbarth, 2000)	
Q1 Research question: What are the main competencies of management consultants according to the value systems of consultants and entrepreneurs? What trends can be observed in the development of competences over the twenty years?	
H1: The competencies of management consultants in Northeast Hungary underwent a significant transformation between 2001 and 2021, reflecting shifts in socio-economic and digital requirements in the region. H1a: There has been a significant increase in the receptivity of consultants to information technology over the past two decades in the region. H1b: Consultants in Northeast Hungary have developed significantly more strategic approaches over the past two decades. H1c: Social competence has become significantly more important among consultants in the region between 2001 and 2021.	The following surveys explore the changes in management consultants' competencies: Höselbarth, 2000 (Between 1993 and 2000) Tokár-Szadai, 2013 (Between 2001 and 2006) The following surveys examine the changes in the European management consulting market: *Consulting in Europe.* Retrieved from Survey of Management Consultancy 1998/99, 1999/2000, 2000/2001, 2001/2002, 2003/2004, 2004/2005, 2005/2006, 2007/2008, 2008/2009. 2010/2011, 2014/2015, 2015/2016, 2016/2017, 2017/2018, 2018/2019, 2019/2020, 2020/2021, 2021/2022 and 2022/23 (FAECO, 1998–2024).
Q2 Research question: Is there a difference in consultants' competencies as perceived by consultants themselves and by entrepreneurs?	
H2: The competencies of consultants are perceived similarly by both consultants and entrepreneurs, and consultants are acutely aware of how they are perceived by their clients.	Empirical surveys: Poór et al. (2020a, b) Tokár-Szadai (2013)

Source: Author's own work

2 Data and Methodology

2.1 Questionnaire and semi-structured in-depth interviews

The empirical study was conducted in two phases:

Phase 1: Questionnaire surveys conducted in 2001 and 2005–06.

Phase 2: Semi-structured in-depth interviews conducted in 2011–12, 2015–16, and 2020–21.

The questionnaire for consultants and enterprises consisted of three parts:

Part 1: General information about the enterprise and consultancy firm (e.g., year of establishment, organisational form, location, turnover, number of employees, qualifications, consultancy experience, range of consultancy services provided or used).

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Part 2: Information about consultants' clients and an evaluation of the company's experience with consultancy. Competencies were assessed using a five-point Likert scale based on Höselbarth's system of criteria (Höselbarth, 2000).

Part 3: Assessment of obstacles to enterprise or consultant operations and their potential for further development.

The semi-structured in-depth interviews were based on the questionnaire but included additional questions (e.g., new knowledge management methods and digitalisation practices). Respondents provided supplementary opinions and experiences, which were meticulously documented.

2.2 Data collection and structure of empirical studies

The sample consisted of 679 respondents. The structure of empirical studies is presented in Table 2.

Table 2 | Structure of empirical studies

Q1 Research question	Time of the survey	Form of the survey	Scope of the survey (response rate)	Participants with consulting experience (N)	Q2 Research question
H1 H1a	2001	Questionnaire survey	199 Consultants (41.7%)	83	
H1b H1c			600 Enterprises (60.3%)	115	
	2005–06	Questionnaire survey	222 Consultants (39.6%)	88	
Tested total (answers)			600 Enterprises (49%)	92	H2
2001 198	2011–12	Semi-structured in-depth interview	58 Consultants 77 Clients	58 77	Tested total (answers) 384 clients 295 consultants
2005–06 180	2015–16	Semi-structured in-depth interview	34 Consultants 48 Clients	34 48	
2011-12 135	2020–21	Semi-structured in-depth interview	32 Consultants	32	
2015–16 82					
2020–21 84			52 Clients	52	

Source: Author's own work

The research surveyed operational enterprises in Borsod-Abaúj-Zemplén County (Northeast Hungary) regarding their utilisation of consultancy services. Firms were selected through simple random sampling, ensuring proportional representation of regional locations as detailed by their activities.

- In 2001, 362 questionnaires were evaluated (response rate: 60.3%).
- In 2005–06, 294 questionnaires were evaluated (response rate: 49%).

The service sector was slightly underrepresented, while industry and commerce were slightly overrepresented in 2005. However, these differences were minor and closely aligned with county rates.

The second component of the survey included consulting firms in Borsod-Abaúj-Zemplén County under the TEÁOR number "7 414 business consultancy" (based on TEAOR'03).

In December 2000, 199 consultancy firms were operational in the county, increasing to 222 firms by 2005. All these firms were visited. In 2001, 83 consultants completed the questionnaire (response rate: 41.7%), while in 2005–06, 88 consultants responded (response rate: 39.6%).

Between 2011–12, 2015–16, and 2020–21, semi-structured in-depth interviews were conducted. The selection of consultants and clients was based on the "snowball" sampling method (ELTE, 2024). Consultants involved one or two clients, while entrepreneurs involved their consultants and other companies. This approach facilitated comparisons of consultants' self-perception of their competencies, clients' perceptions of consultants, and the differences between the two perspectives. The clients represented all sectors of activity (Table 3).

Table 3 | Surveyed enterprises (customers) by main activity

Survey	Production (A-F)	Services (H-U)	Trade (G)	Total
2001	50	39	26	115
2005–06	31	36	25	92
2011–12	34	30	11	75
2015–16	19	20	9	48
2020–21	26	17	9	52
Total	160	142	80	382

Source: Author's own work based on SPSS 30.0

In this study, consultants are defined as enterprises that provide "management consultancy" in accordance with TEÁOR'08. While the main activity of the enterprise was not a criterion for inclusion, the in-depth interview was conducted with the specific colleague responsible for consultancy services.

From a territorial perspective, at least one of the following criteria had to be met: either the consultant or their client had to be based in Northeast Hungary (specifically in the counties of Borsod-Abaúj-Zemplén, Heves, Nógrád, Szabolcs-Szatmár-Bereg, or Hajdú-Bihar). Most of the entrepreneurs and consultants who participated in the semi-structured in-depth interviews were located in Borsod-Abaúj-Zemplén County.

During the 2020–21 period, amidst the pandemic-induced crisis, semi-structured in-depth interviews were conducted online (via Zoom and Skype) with 32 consultants and 52 clients. Although it was not possible to ensure complete comparability with previous surveys, meaningful trends could still be inferred.

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Table 4 | Surveyed enterprises (customers) by size

Survey	0–9 employees	10–19 employees	20–49 employees	50–249 employees	Above 250 employees	Total
2001	43	11	18	24	19	115
2005–06	28	18	18	14	14	92
2011–12	35	8	10	11	13	77
2015–16	20	9	4	8	7	48
2020–21	31	10	3	3	5	52
Total	157	56	53	60	58	384

Source: Author's own work based on SPSS 30.0

The propensity to complete the questionnaire was significantly higher among larger enterprises, resulting in their overrepresentation in all samples. According to the Hungarian Statistical Office, micro-enterprises (with fewer than 10 employees) constituted 92.2% of all partnerships in Hungary in 2001, 93% in 2006, 94% in 2011, 93.5% in 2016, and 93% in 2021 (KSH, 2025).

In 2001 and 2005–06, to increase the evaluability of the data, larger businesses—which were more likely to afford and utilise consultancy services-were intentionally overrepresented in the samples. As shown in Table 4, customers (clients) surveyed included all size categories; however, micro-enterprises made up the majority of participants across all five surveys.

2.3 Data analysis methods

The data collected from the questionnaires were processed using the SPSS 30.0 software package. Several analytical methods were employed, including cross-tabulation (independence analysis), analysis of variance (ANOVA), correlation analysis, and factor analysis.

A 5% significance level was applied, in line with social science research conventions.

Analysis of Research Hypotheses

The first research hypotheses (H1, H1a, H1b, H1c) were tested by comparing data from comprehensive surveys of consultants and entrepreneurs (clients) conducted at different points in time (2001, 2005–06, 2011–12, 2015–16, and 2020–21). The primary question was whether the timing of the survey significantly influenced the variance in the quantitative criteria (e.g., consultants' competencies rated on a 5-point Likert scale).

To test this, the F-test was employed. Additionally, the Levene test was used to determine whether the condition of homogeneity of variance was satisfied:

- For H1a and H1c, the Levene test indicated non-significant results (60.4% and 20.1%, respectively), meaning the homogeneity of variances condition was met.

- For H1b, the Levene test yielded a significant result (2.1%), indicating that the condition was not satisfied.

Despite this, the F-test—being highly robust—ensures the validity of inferences even when certain conditions (e.g., normality or homogeneity of variance) are not met, minimising the risk of Type I or Type II errors (Sajtos & Mitev, 2007, p. 167).

The second hypothesis (H2) was tested using ANOVA to compare survey results from consultants and entrepreneurs (clients). The key question was whether the scope of the survey (consultant or client perspective) significantly influenced the variance in the quantitative measure (e.g., specific competencies rated on a 5-point Likert scale).

The Levene test showed that homogeneity of variances was satisfied for 17 variables but not for the following four variables: Authoritarian leadership skills (2.2%); Project management skills (2.7%); Loyalty (2.7%); Ability to foster a balanced family atmosphere (0%).

Despite these exceptions, the F-test was employed due to its robustness, allowing for valid inferences regarding differences in the perceptions of competencies between consultants and clients.

Factor Analysis

Factor analysis was used to compress data and explore the structure of variables, enabling the construction of the Consultant Competence Model. The initial variables were condensed into factor variables, which are not directly observable but summarise key aspects of the data. For factor analysis to be effective, the process must retain as much information as possible, allowing conclusions derived from the transformed data to closely mirror those derived from the original data. This method facilitates: Easier analysis and interpretation of complex data sets; The identification of relationships between individual characteristics (Sajtos & Mitev, 2007).

Table 5 | KMO and Bartlett's test

Kaiser-Meyer-Olkin measure of sampling adequacy		.893
Bartlett's test of sphericity	Approx. Chi-Square	2852.549
	df	210
	Sig.	<.001

Source: Author's own work based on SPSS 30.0

The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy yielded a value of 0.893, confirming that the variables are highly suitable for factor analysis. A score of 0.9 or above is considered excellent, while scores above 0.8 are deemed very good (Sajtos & Mitev, 2007). Furthermore, Bartlett's test of sphericity demonstrated statistical significance at the 0.00 level, validating the suitability of the variables for analysis (Table 5).

3 Results and Discussion

3.1 Examination of the first research question

The first research question seeks to explore**:** *What are the main competencies of management consultants according to the value systems of consultants and entrepreneurs? What trends can be observed in the development of these competencies over the past 20 years?*

To address this question, a main hypothesis and four sub-hypotheses were tested:

H1: The competencies of management consultants in Northeast Hungary underwent a significant transformation between 2001 and 2021, reflecting shifts in socio-economic and digital requirements in the region.

Using the F-test, significant differences in consultant competencies were observed for most factors, except "authoritarian leadership" (85.5%) and "cost-benefit aspect" (13.1%), where results were not significant at the 5% level.

For other factors, changes over time were significant ($p < 0.05$), confirming that shifts in consultants' competencies occurred. Based on this, the first hypothesis can be partially accepted.

Despite these findings, the magnitude of change was relatively small. On a 5-point Likert scale, most variables showed an improvement of less than 0.5 points, with none exceeding a change of 1 point (Appendix 1).

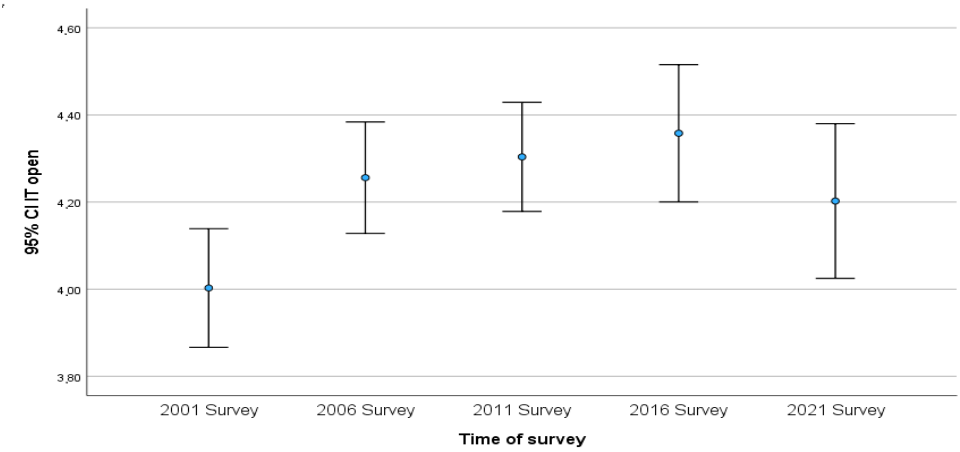
To address the initial research question, three sub-hypotheses were formulated based on the international literature (Table 1).

H1a: There has been a significant increase in the receptivity of consultants to information technology over the past two decades in the region.

An F-test yielded a significance level of 0.3%, allowing us to conclude with 99.7% confidence that survey timing influenced consultants' openness to IT. However, the relationship, as measured by the Eta value (0.156), was weak.

The Eta-squared value (2.4%) indicates that the timing of the survey explains only a small fraction of the variance in IT receptivity. Figure 2 illustrates the consultants' openness to information technology on a 5-point Likert scale with 95% confidence intervals, based on the results of our complex surveys of consultants and entrepreneurs.

Figure 2 | Consultants' openness to information technology based on survey results (2001, 2005–06, 2011–12, 2015–16, 2020–21)



Source: Author's own work based on SPSS 30.0

Table 6 presents a comparison of consultants' openness to information technology scores on a 5-point Likert scale, based on the time of the surveys.

Table 6 | Multiple comparisons of consultants' openness to information technology (Tukey HSD test)

Time of survey 1	Time of survey 2	Mean difference	Std. error	Sig	95% confidence interval	
					Lower bound	Upper bound
2001	**2006**	-.25325*	.08871	.036	-.4959	-.0106
2006	**2011**	-.04775	.09621	.988	-.3109	.2154
2011	**2016**	-.05432	.11699	.990	-.3743	.2657
2016	**2021**	.15564	.12962	.751	-.1989	.5102

*. The mean difference is significant at the 0.05 level.

Source: Author's own work based on SPSS 30.0

The post hoc test indicates a significant difference between the 2001 survey and the 2006 survey. A notable improvement in IT-related skills was observed between 2001 and 2006, paralleling trends identified in Germany between 1993 and 2000 (Höselbarth, 2000). Surprisingly, no significant increase in IT receptivity occurred after 2006, even during the pandemic. The mean difference between 2001 and 2021 was insignificant ($p = 0.361$).

In Europe, IT consultancy as a share of management consulting turnover has fluctuated: it peaked at 33.2% in 2001, dropped to 20% by 2014, and stabilised at around 23% in 2022 (FEACO, 2001–2024).

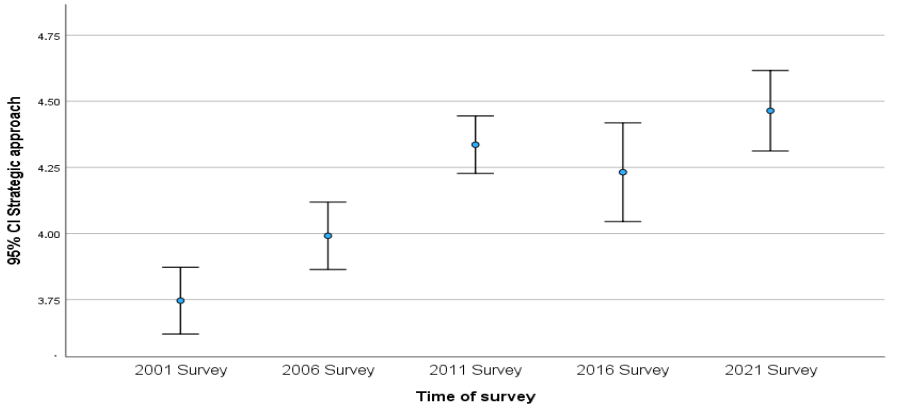
The sub-hypothesis H1a must be rejected based on the findings of our survey.

H1b: Consultants in Northeast Hungary have developed significantly more strategic approaches over the past two decades.

An F-test confirmed a statistically significant relationship ($p < 0.01$) between the timing of surveys and consultants' strategic approaches.

The Eta value (0.312) indicates a moderate relationship, while Eta-squared (9.7%) suggests that the timing accounts for 9.7% of the variance in strategic approaches. Figure 3 illustrates the strategic approach of consultants on a 5-point Likert scale with 95% confidence intervals, based on the results of our complex surveys of consultants and entrepreneurs.

Figure 3 | Strategic approach of consultants based on survey results (2001, 2005–06, 2011–12, 2015–16, 2020–21)



Source: Author's own work based on SPSS 30.0

Table 7 presents a comparison of consultants' strategic approach scores on a 5-point Likert scale, based on the time of the surveys.

Table 7 | Multiple comparisons of consultants' strategic approach (Tukey HSD test)

Time of survey 1	Time of survey 2	Mean difference	Std. error	Sig	95% Confidence interval	
					Lower bound	Upper bound
2001	**2006**	-.24530*	.08447	.031	-.4764	-.0142
2006	**2011**	-.34449*	.09238	.002	-.5972	-.0918
2011	**2016**	.10411	.11256	.887	-.2038	.4120
2016	**2021**	-.23258	.12463	.337	-.5735	.1083

*. The mean difference is significant at the 0.05 level.

Source: Author's own work based on SPSS 30.0

Over the past two decades, the complexity of the environment has increased considerably due to significant social and economic transformations at both global and regional levels.

This has underscored the necessity for a strategic approach, which consultants have had to adapt to. A gradual increase in strategic competencies was observed between 2001 and 2011. Significant differences were noted between 2001 and 2006 ($p = 0.031$) and 2006 and 2011 ($p = 0.002$). After 2011, no substantial change occurred, indicating a plateau in strategic competency development.

In Europe, corporate strategy consulting increased from 12.5% of turnover in 2005 to 20% by 2015 but remained stable at 20.5% in 2022 (FEACO, 2005–2024).

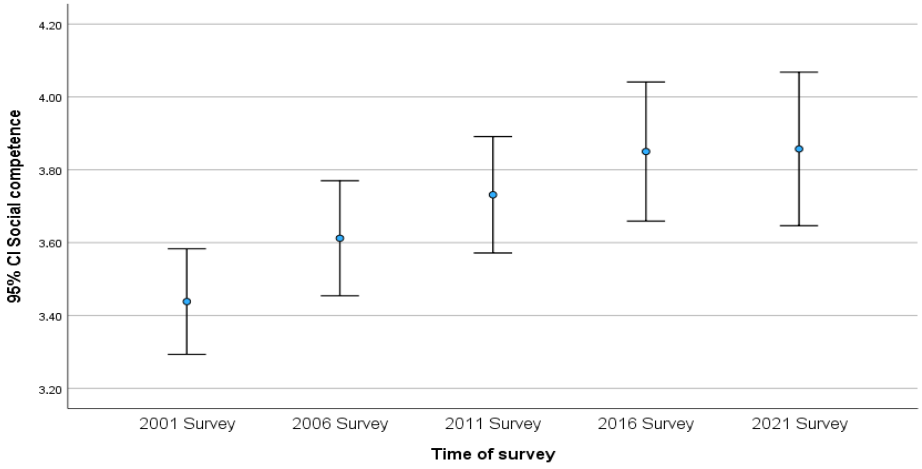
Our second sub-hypothesis can be partially accepted based on our study.

H1c: Social competence has become significantly more important among consultants in the region between 2001 and 2021.

The result of the F-test used to test the hypothesis indicates that the level of statistical significance is 0.2%, allowing us to conclude with 99.8% confidence that the timing of the survey influences the degree of social competence among consultants. The indicator Eta is 0.161, which demonstrates a weak relationship between the timing of the survey and consultants' social competence, as evidenced by our survey results. The Eta-squared value of 2.6% suggests that the timing of the survey accounts for 2.6% of the variance in social competence.

Figure 4 illustrates the social competence of consultants on a 5-point Likert scale with 95% confidence intervals, based on the results of our complex surveys of consultants and entrepreneurs.

Figure 4 | Social competence of consultants based on survey results (2001, 2005–06, 2011–12, 2015–16, 2020–21)



Source: Author's own work based on SPSS 30.0

Table 8 presents a comparison of consultants' social competence scores on a 5-point Likert scale, based on the time of the surveys.

Table 8 | Multiple comparison of the consultants' social competence (Tukey HSD test)

Time of survey 1	Time of survey 2	Mean difference	Std. error	Sig	95% confidence interval	
					Lower bound	Upper bound
2001	**2006**	-.17392	.10460	.458	-.4601	.1122
2006	**2011**	-.11922	.11256	.827	-.4271	.1887
2011	**2016**	-.11866	.13675	.909	-.4928	.2554
2016	**2021**	-.00714	.15120	1.000	-.4208	.4065

Source: Author's own work based on SPSS 30.0

The results indicate a slow but consistent enhancement in the social competence of consultants in Northeast Hungary over the past two decades (Figure 4). However, as shown in Table 8, there has been no statistically significant change in social competence overall. The post hoc test highlights significant differences in consultants' social competence between 2001 and 2016 ($p = 0.014$) and 2001 and 2021 ($p = 0.01$).

These findings align with trends identified by Höselbarth (2000) in Germany, which were also observed in Northeast Hungary during the period from 2001 to 2021. Globally and regionally, the roles of social responsibility and social sensitivity have expanded significantly over the past three decades, and local consultants have adapted to these developments. Based on our findings, the third sub-hypothesis can be accepted.

3.2 Examination of the second research question

The second research question seeks to explore: ***Is there a difference in consultants' competencies as perceived by consultants themselves and by entrepreneurs?***

To examine the second research question, the following hypothesis was formulated:

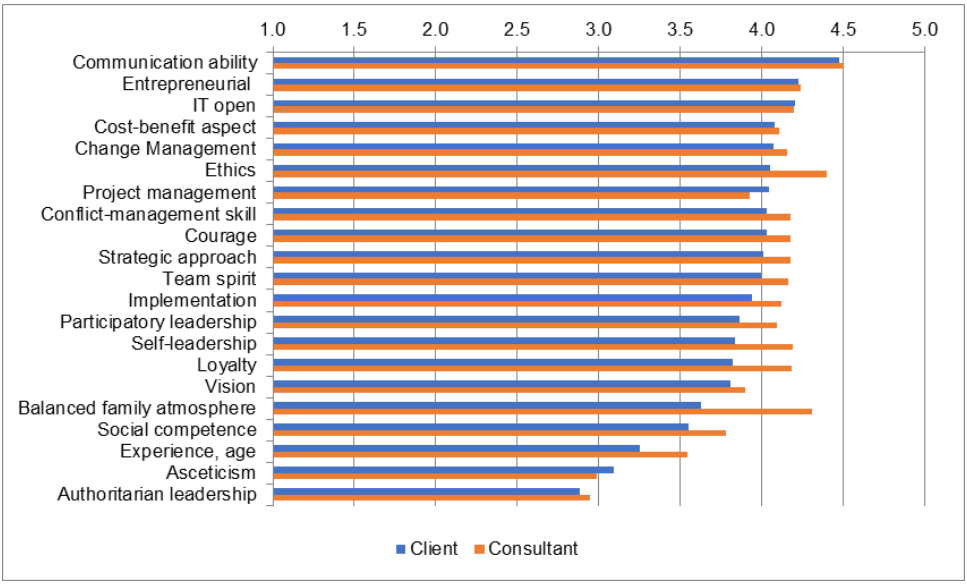
H2: The competencies of consultants are perceived similarly by both consultants and entrepreneurs, and consultants are acutely aware of how they are perceived by their clients.

The F-test results show that for nine factors — communication ability (58%), authoritarian leadership (46.5%), project management (11%), vision (25.2%), cost-benefit aspect (68.6%), IT openness (98.8%), change management (20.4%), entrepreneurial spirit (80.7%), and asceticism (26.7%) — the safety significance level is greater than 5%, indicating no significant difference between the perceived competencies of consultants and clients. For these factors, consultants and clients appear to evaluate competencies similarly.

However, for the remaining factors, the F-test confidence level is less than 5%, indicating significant divergence between consultants' and clients' perceptions.

Figure 5 illustrates the competencies of consultants as evaluated by both consultants and clients on a 5-point Likert scale, based on a 20-year database of evaluations.

Figure 5 | Consultants' competencies as evaluated by consultants and clients (2001–2021)



Source: Author's own work

Compared to their clients, consultants tend to overestimate their competencies in the following areas: the ability to provide a balanced family atmosphere (+0.68 points on a five-point Likert scale), loyalty to their customers (+0.36), self-leadership skills (+0.35), ethical behaviour (+0.35), age and experience (+0.29), social competence (+0.23), participatory leadership skills (+0.22), implementation skills (+0.18), strategic approach skills (+0.17), team spirit (+0.17), courage (+0.14), and conflict-management skills (+0.14).

The discrepancy between consultants' self-assessments and client evaluations is less than 0.5 on a five-point Likert scale for all criteria, except for the ability to provide a balanced family atmosphere (Appendix 2). Based on our findings, the second hypothesis can be partially accepted.

A review of the study reveals 12 factors contributing to consultants' tendency to slightly overestimate their competencies. This overestimation is not a feature of the research report by the Budapest Chamber of Commerce and Industry. However, it should be noted that full comparability cannot be ensured, as the Chamber's survey of clients focused on the competencies expected from consultants. Notably, in 12 of the 21 criteria examined, clients expected more from consultants than the consultants perceived themselves to possess (Poór et al., 2020a, b).

3.3 The construction of a consultant competence model

The Kaiser criterion, combined with the Scree test, indicates that a five-factor solution is the most appropriate. The first factor accounts for 14.5% of the variance, the second for 13.2%, the third for 9.7%, the fourth for 7.5%, and the fifth for 6.9%. In developing this model, the system of criteria proposed by Höselbarth (2000) was utilised.

Table 9 | Variable coordinates by five principle components

Rotated Component Matrix[a]

Variable	Component				
	1	2	3	4	5
Change management	.696	.067	.181	.202	-.053
Entrepreneurial	.659	.112	.110	.009	.354
IT open	.632	.106	.039	.291	-.175
Team spirit	.562	.253	-.107	.391	.146
Courage	.533	.215	.221	-.046	.408
Implementation	.514	.147	.430	.081	-.174
Conflict-management skill	.501	.311	.236	.097	.027
Balanced family atmosphere	.303	.692	.016	-.068	.056
Ethics	.172	.664	.251	.109	.007
Experience, age	-.101	.655	-.047	-.004	.192
Loyalty	.059	.610	.171	.341	-.047
Social competence	.272	.596	.100	.173	.120
Self-leadership	.325	.521	.171	-.217	.173
Strategic approach	.175	.153	.744	.157	.065
Cost-benefit aspect	.006	.075	.630	.118	.083
Communication ability	.399	.147	.559	-.042	.006
Vision	.130	-.008	.475	.461	.357
Participatory leadership	.170	.270	.123	.649	-.034
Project management	.244	-.119	.212	.618	.224
Asceticism	.044	.144	-.007	.057	.668
Authoritarian leadership	-.027	.063	.078	.068	.582

Extraction Method: Principal Component Analysis.

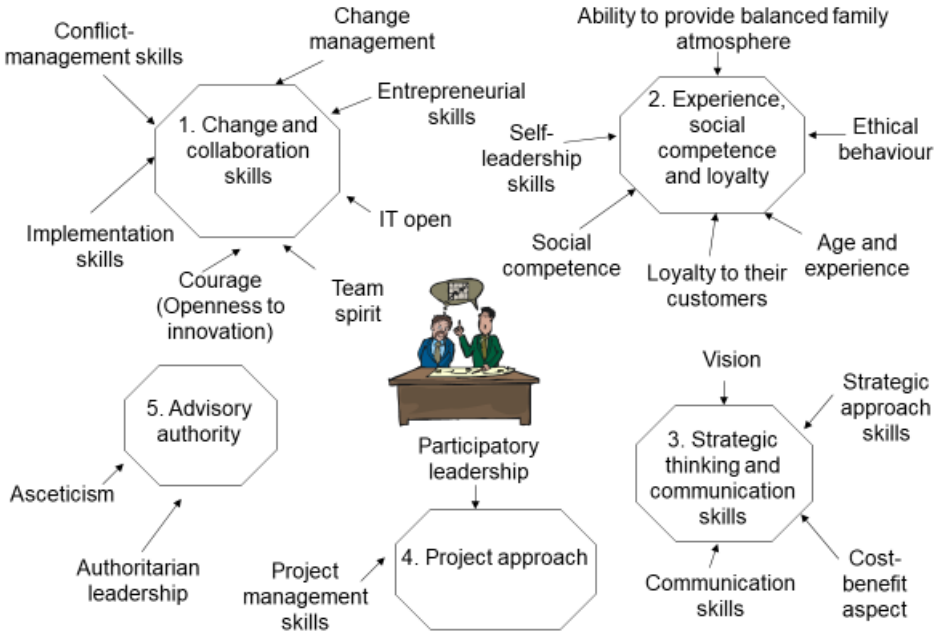
Rotation Method: Varimax with Kaiser Normalisation. a

a. Rotation converged in 7 iterations.

Source: Author's own work based on complex 2001-2021 database, using SPSS 30.0

The factor analysis identified the following five factors (Table 9): Change and collaboration skills; Experience, social competence, and loyalty; Strategic thinking and communication skills; Project approach; and Advisory authority. The findings of the study are summarised in the Consultant Competence Model (Figure 6).

Figure 6 | Consultant Competence Model



Source: Author's own work

The model suggests that fundamental consultant competencies evolve gradually over time and are not dependent on social contexts. To enhance reliability, it would be beneficial to test the model at a national level and in other countries.

Conclusion

To achieve success as a consultant, it is essential to possess not only a comprehensive understanding of the subject matter — including theoretical knowledge (methodological understanding), professional practice (insight into problems), and innovativeness (the ability to develop bespoke, innovative solutions) — but also the ability to persuade. This requires a combination of empathy, adaptability, and professional credibility, enabling the client to understand and implement the proposal.

The objective of this study was to examine the competencies of management consultants in Northeast Hungary between 2001 and 2021. Based on this analysis, the aim was to propose a consultant competence model. The results of the hypothesis testing, addressing the research questions posed at the outset of the study, are presented in Table 10.

Table 10 | Results of the hypothesis testing

Hypothesis	Results of the hypothesis tests	Results of the research (thesis)
H1	Partially accepted	The competences of management consultants in Northeast Hungary have undergone significant transformation between 2001 and 2021 (with the exception of two factors), reflecting the socio-economic transformation of the region. However, the observed advancement was minimal and contrary to expectations.
H1a	Rejected	There was no discernible increase in openness to information technology contrary to expectations.
H1b	Partially accepted	The strategic approach of consultants has significantly increased between 2001 and 2011. However, after 2011, no significant changes were observed in the region.
H1c	Accepted	The importance of social competence among consultants has significantly increased between 2001 and 2021 in the region.
H2	Partially accepted	The competencies of consultants are perceived similarly by both consultants and their clients. Consultants are acutely aware of how they are perceived by their clients. A review of our study reveals twelve factors that contribute to consultants' tendency to slightly overestimate their competence.

Source: Author's own work

The results of these analyses are presented in the Consultant Competence Model, which identifies five key factors:

1. Change and collaboration skills,
2. Experience, social competence, and loyalty,
3. Strategic thinking and communication skills,
4. Project approach, and
5. Advisory authority.

The Consultant Competence Model can be applied in the training of consultants in academic institutions and professional associations, as well as by Chambers of Commerce and Industry. Based on these factors, a training and development program for consultants could be formulated, comprising a series of sessions designed to evaluate and enhance these competencies. Furthermore, consultants could utilise this program for the selection, training, and development of their trainees and staff.

While general conclusions cannot be drawn from the semi-structured in-depth interviews — due to their lack of representativeness and comparability with each other or with previous representative questionnaire surveys — they serve as valuable exploratory research. These

findings can identify trends and directions of change, providing a foundation for future empirical research.

It is important to note that this study, which focused exclusively on enterprises and consultants in Northeast Hungary, is not suitable for making broader generalisations at the national or international levels.

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Appendix

Appendix 1 | List of consultants' competences by time of the survey

Competence	Survey	N	Mean	Std. deviation	Std. error	95% confidence interval for mean	
						Lower bound	Upper bound
Communication ability	2001 Survey	193	4.3756	.68851	.04956	4.2779	4.4734
	2006 Survey	175	4.4457	.65756	.04971	4.3476	4.5438
	2011 Survey	135	4.5852	.60329	.05192	4.4825	4.6879
	2016 Survey	81	4.5926	.56519	.06280	4.4676	4.7176
	2021 Survey	84	4.5476	.58915	.06428	4.4198	4.6755
	Total	668	4.4843	.64162	.02482	4.4355	4.5330
Strategic approach	2001 Survey	189	3.7460	.88067	.06406	3.6197	3.8724
	2006 Survey	173	3.9913	.84989	.06462	3.8638	4.1189
	2011 Survey	134	4.3358	.63653	.05499	4.2271	4.4446
	2016 Survey	82	4.2317	.85054	.09393	4.0448	4.4186
	2021 Survey	84	4.4643	.70192	.07659	4.3120	4.6166
	Total	662	4.0808	.84227	.03274	4.0165	4.1451
Implementation	2001 Survey	189	3.8492	.84725	.06163	3.7276	3.9708
	2006 Survey	169	3.9970	.81009	.06231	3.8740	4.1201
	2011 Survey	133	4.1880	.67589	.05861	4.0720	4.3039
	2016 Survey	82	4.1098	.78577	.08677	3.9371	4.2824
	2021 Survey	84	4.0833	.83894	.09154	3.9013	4.2654
	Total	657	4.0183	.80422	.03138	3.9567	4.0799
Authoritarian leadership	2001 Survey	182	2.8297	1.07127	.07941	2.6730	2.9864
	2006 Survey	167	2.9491	1.16634	.09025	2.7709	3.1273
	2011 Survey	133	2.9624	1.18325	.10260	2.7595	3.1654
	2016 Survey	81	2.9136	1.20621	.13402	2.6469	3.1803
	2021 Survey	84	2.9167	1.24386	.13572	2.6467	3.1866
	Total	647	2.9096	1.15713	.04549	2.8203	2.9989
Participatory leadership	2001 Survey	186	3.7043	.97187	.07126	3.5637	3.8449
	2006 Survey	168	3.9494	.87487	.06750	3.8161	4.0827
	2011 Survey	135	4.1185	.86432	.07439	3.9714	4.2656
	2016 Survey	81	4.1975	.81271	.09030	4.0178	4.3772
	2021 Survey	84	4.0714	.90228	.09845	3.8756	4.2672
	Total	654	3.9610	.91295	.03570	3.8909	4.0311

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Competence	Survey	N	Mean	Std. deviation	Std. error	95% confidence interval for mean	
						Lower bound	Upper bound
Project management	2001 Survey	185	3.7730	.93386	.06866	3.6375	3.9084
	2006 Survey	168	3.7976	1.05852	.08167	3.6364	3.9589
	2011 Survey	134	4.1940	.89676	.07747	4.0408	4.3473
	2016 Survey	82	4.3415	.72384	.07993	4.1824	4.5005
	2021 Survey	84	4.2143	.80767	.08812	4.0390	4.3896
	Total	653	3.9939	.94802	.03710	3.9210	4.0667
Vision	2001 Survey	183	3.5301	1.04720	.07741	3.3773	3.6828
	2006 Survey	168	3.6607	1.08241	.08351	3.4958	3.8256
	2011 Survey	131	4.2137	.83212	.07270	4.0699	4.3576
	2016 Survey	80	4.1250	.81714	.09136	3.9432	4.3068
	2021 Survey	82	4.0732	.84299	.09309	3.8879	4.2584
	Total	644	3.8463	1.00371	.03955	3.7686	3.9239
Cost-benefit aspect	2001 Survey	189	4.0265	.93646	.06812	3.8921	4.1608
	2006 Survey	170	3.9853	1.00358	.07697	3.8333	4.1372
	2011 Survey	134	4.2164	.83497	.07213	4.0737	4.3591
	2016 Survey	81	4.1605	.88680	.09853	3.9644	4.3566
	2021 Survey	83	4.1928	.87594	.09615	4.0015	4.3840
	Total	657	4.0921	.92367	.03604	4.0213	4.1628
Loyalty	2001 Survey	189	3.8042	.90435	.06578	3.6745	3.9340
	2006 Survey	171	3.9064	1.03043	.07880	3.7509	4.0620
	2011 Survey	135	4.1704	.80614	.06938	4.0331	4.3076
	2016 Survey	82	4.1220	.85187	.09407	3.9348	4.3091
	2021 Survey	84	4.0595	1.05683	.11531	3.8302	4.2889
	Total	661	3.9773	.94280	.03667	3.9053	4.0493
IT open	2001 Survey	185	4.0027	.93903	.06904	3.8665	4.1389
	2006 Survey	168	4.2560	.84057	.06485	4.1279	4.3840
	2011 Survey	135	4.3037	.73580	.06333	4.1785	4.4290
	2016 Survey	81	4.3580	.71254	.07917	4.2005	4.5156
	2021 Survey	84	4.2024	.81816	.08927	4.0248	4.3799
	Total	653	4.1998	.84011	.03288	4.1353	4.2644
Change management	2001 Survey	186	3.8817	.82330	.06037	3.7626	4.0008
	2006 Survey	168	4.1190	.78770	.06077	3.9991	4.2390
	2011 Survey	130	4.2923	.70925	.06221	4.1692	4.4154
	2016 Survey	81	4.2840	.76214	.08468	4.1154	4.4525
	2021 Survey	84	4.1190	.86991	.09491	3.9303	4.3078
	Total	649	4.1063	.80475	.03159	4.0443	4.1683

Competence	Survey	N	Mean	Std. deviation	Std. error	95% confidence interval for mean	
						Lower bound	Upper bound
Experience. age	2001 Survey	187	3.1043	1.13170	.08276	2.9410	3.2675
	2006 Survey	165	3.5121	1.13421	.08830	3.3378	3.6865
	2011 Survey	133	3.2707	1.10184	.09554	3.0817	3.4597
	2016 Survey	81	3.8025	1.01759	.11307	3.5775	4.0275
	2021 Survey	82	3.4756	1.09122	.12050	3.2358	3.7154
	Total	648	3.3765	1.12758	.04430	3.2896	3.4635
Ethics	2001 Survey	188	4.0293	.91654	.06685	3.8974	4.1611
	2006 Survey	166	4.2108	.85145	.06609	4.0804	4.3413
	2011 Survey	135	4.3037	.72559	.06245	4.1802	4.4272
	2016 Survey	82	4.4146	.70187	.07751	4.2604	4.5689
	2021 Survey	83	4.2169	.88412	.09704	4.0238	4.4099
	Total	654	4.2041	.84113	.03289	4.1395	4.2687
Social competence	2001 Survey	178	3.4382	.97951	.07342	3.2933	3.5831
	2006 Survey	165	3.6121	1.02759	.08000	3.4542	3.7701
	2011 Survey	134	3.7313	.93523	.08079	3.5715	3.8911
	2016 Survey	80	3.8500	.85832	.09596	3.6590	4.0410
	2021 Survey	84	3.8571	.97119	.10597	3.6464	4.0679
	Total	641	3.6505	.97766	.03862	3.5747	3.7264
Self-leadership	2001 Survey	186	3.8548	.93889	.06884	3.7190	3.9907
	2006 Survey	168	3.9821	1.03515	.07986	3.8245	4.1398
	2011 Survey	134	4.0149	.91754	.07926	3.8581	4.1717
	2016 Survey	81	4.2840	.77837	.08649	4.1118	4.4561
	2021 Survey	84	3.9881	1.08099	.11795	3.7535	4.2227
	Total	653	3.9908	.96721	.03785	3.9165	4.0651
Conflict-management skill	2001 Survey	186	3.9570	.78381	.05747	3.8436	4.0704
	2006 Survey	168	4.0149	.85195	.06573	3.8851	4.1446
	2011 Survey	133	4.2782	.73189	.06346	4.1527	4.4037
	2016 Survey	81	4.2469	.73367	.08152	4.0847	4.4091
	2021 Survey	83	4.0964	.90546	.09939	3.8987	4.2941
	Total	651	4.0914	.81033	.03176	4.0290	4.1538

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Competence	Survey	N	Mean	Std. deviation	Std. error	95% confidence interval for mean	
						Lower bound	Upper bound
Team spirit	2001 Survey	187	3.8556	1.00296	.07334	3.7109	4.0003
	2006 Survey	167	3.9341	1.00683	.07791	3.7803	4.0880
	2011 Survey	135	4.3852	.78212	.06731	4.2520	4.5183
	2016 Survey	81	4.3580	.76336	.08482	4.1892	4.5268
	2021 Survey	84	4.0000	.94423	.10302	3.7951	4.2049
	Total	654	4.0657	.95068	.03717	3.9928	4.1387
Entrepreneurial	2001 Survey	188	4.1223	.84710	.06178	4.0005	4.2442
	2006 Survey	170	4.1618	.84895	.06511	4.0332	4.2903
	2011 Survey	135	4.3407	.83006	.07144	4.1994	4.4820
	2016 Survey	82	4.4878	.65251	.07206	4.3444	4.6312
	2021 Survey	84	4.1905	.85695	.09350	4.0045	4.3764
	Total	659	4.2314	.83061	.03236	4.1679	4.2949
Courage	2001 Survey	187	3.8850	.85439	.06248	3.7618	4.0083
	2006 Survey	167	4.0329	.83978	.06498	3.9046	4.1612
	2011 Survey	134	4.2388	.73760	.06372	4.1128	4.3648
	2016 Survey	81	4.3704	.76558	.08506	4.2011	4.5397
	2021 Survey	84	4.1548	.82862	.09041	3.9749	4.3346
	Total	653	4.0904	.82816	.03241	4.0267	4.1540
Asceticism	2001 Survey	170	2.8941	.99137	.07603	2.7440	3.0442
	2006 Survey	157	2.9490	1.13678	.09072	2.7698	3.1283
	2011 Survey	128	3.1172	1.18136	.10442	2.9106	3.3238
	2016 Survey	75	3.2533	1.19790	.13832	2.9777	3.5289
	2021 Survey	84	3.2381	1.02227	.11154	3.0162	3.4599
	Total	614	3.0456	1.10628	.04465	2.9579	3.1333
Balanced family atmosphere	2001 Survey	182	3.7747	1.06622	.07903	3.6188	3.9307
	2006 Survey	160	3.8938	1.10230	.08714	3.7216	4.0659
	2011 Survey	133	3.9774	.96504	.08368	3.8119	4.1430
	2016 Survey	80	4.2375	.83049	.09285	4.0527	4.4223
	2021 Survey	83	3.9518	.92266	.10128	3.7503	4.1533
	Total	638	3.9279	1.01688	.04026	3.8488	4.0070

Source: Author's own work based on SPSS 30.0

Appendix 2 | List of consultants' competences by consultants and entrepreneurs (clients) based on the complex 2001-2021 database

Competence	Participant	N	Mean	Std. deviation	Std. error	95% confidence interval for mean	
						Lower bound	Upper bound
Communication ability	Client	378	4.4722	.64318	.03308	4.4072	4.5373
	Consultant	290	4.5000	.64034	.03760	4.4260	4.5740
	Total	668	4.4843	.64162	.02482	4.4355	4.5330
Strategic approach	Client	374	4.0067	.83527	.04319	3.9218	4.0916
	Consultant	288	4.1771	.84303	.04968	4.0793	4.2749
	Total	662	4.0808	.84227	.03274	4.0165	4.1451
Implementation	Client	371	3.9407	.82067	.04261	3.8569	4.0245
	Consultant	286	4.1189	.77223	.04566	4.0290	4.2088
	Total	657	4.0183	.80422	.03138	3.9567	4.0799
Authoritarian leadership	Client	363	2.8802	1.09751	.05760	2.7669	2.9934
	Consultant	284	2.9472	1.23008	.07299	2.8035	3.0909
	Total	647	2.9096	1.15713	.04549	2.8203	2.9989
Participatory leadership	Client	371	3.8639	.93487	.04854	3.7684	3.9593
	Consultant	283	4.0883	.86867	.05164	3.9867	4.1900
	Total	654	3.9610	.91295	.03570	3.8909	4.0311
Project management	Client	366	4.0464	.90085	.04709	3.9538	4.1390
	Consultant	287	3.9268	1.00256	.05918	3.8103	4.0433
	Total	653	3.9939	.94802	.03710	3.9210	4.0667
Vision	Client	361	3.8061	.99502	.05237	3.7031	3.9091
	Consultant	283	3.8975	1.01413	.06028	3.7789	4.0162
	Total	644	3.8463	1.00371	.03955	3.7686	3.9239
Cost-benefit aspect	Client	372	4.0793	.95436	.04948	3.9820	4.1766
	Consultant	285	4.1088	.88339	.05233	4.0058	4.2118
	Total	657	4.0921	.92367	.03604	4.0213	4.1628
Loyalty	Client	373	3.8204	.96576	.05001	3.7220	3.9187
	Consultant	288	4.1806	.87276	.05143	4.0793	4.2818
	Total	661	3.9773	.94280	.03667	3.9053	4.0493
IT open	Client	367	4.2003	.79707	.04161	4.1185	4.2821
	Consultant	286	4.1993	.89372	.05285	4.0953	4.3033
	Total	653	4.1998	.84011	.03288	4.1353	4.2644

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Competence	Participant	N	Mean	Std. deviation	Std. error	95% Confidence interval for mean	
						Lower bound	Upper bound
	Client	366	4.0710	.81451	.04258	3.9873	4.1548
Change management	Consultant	283	4.1519	.79105	.04702	4.0594	4.2445
	Total	649	4.1063	.80475	.03159	4.0443	4.1683
	Client	363	3.2479	1.09518	.05748	3.1349	3.3610
Experience. age	Consultant	285	3.5404	1.14877	.06805	3.4064	3.6743
	Total	648	3.3765	1.12758	.04430	3.2896	3.4635
	Client	367	4.0504	.87359	.04560	3.9607	4.1401
Ethics	Consultant	287	4.4007	.75475	.04455	4.3130	4.4884
	Total	654	4.2041	.84113	.03289	4.1395	4.2687
	Client	358	3.5475	.93888	.04962	3.4499	3.6451
Social competence	Consultant	283	3.7809	1.01131	.06012	3.6626	3.8993
	Total	641	3.6505	.97766	.03862	3.5747	3.7264
	Client	365	3.8356	.99468	.05206	3.7332	3.9380
Self-leadership	Consultant	288	4.1875	.89496	.05274	4.0837	4.2913
	Total	653	3.9908	.96721	.03785	3.9165	4.0651
	Client	368	4.0285	.83999	.04379	3.9424	4.1146
Conflict-management skill	Consultant	283	4.1731	.76380	.04540	4.0838	4.2625
	Total	651	4.0914	.81033	.03176	4.0290	4.1538
	Client	369	3.9919	.93973	.04892	3.8957	4.0881
Team spirit	Consultant	285	4.1614	.95787	.05674	4.0497	4.2731
	Total	654	4.0657	.95068	.03717	3.9928	4.1387
	Client	372	4.2245	.80348	.04166	4.1425	4.3064
Entrepreneurial	Consultant	287	4.2404	.86585	.05111	4.1398	4.3410
	Total	659	4.2314	.83061	.03236	4.1679	4.2949
	Client	368	4.0272	.83393	.04347	3.9417	4.1127
Courage	Consultant	285	4.1719	.81486	.04827	4.0769	4.2669
	Total	653	4.0904	.82816	.03241	4.0267	4.1540
	Client	349	3.0888	1.10608	.05921	2.9724	3.2053
Asceticism	Consultant	265	2.9887	1.10605	.06794	2.8549	3.1225
	Total	614	3.0456	1.10628	.04465	2.9579	3.1333
	Client	354	3.6243	1.04167	.05536	3.5154	3.7332
Balanced family atmosphere	Consultant	284	4.3063	.84558	.05018	4.2076	4.4051
	Total	638	3.9279	1.01688	.04026	3.8488	4.0070

Source: Author's own work based on SPSS 30.0