

ORIGINAL ARTICLE

Organisational culture as a prerequisite for human resource management in public administration and its change in the time of COVID-19

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ABSTRACT

Organisational culture stands as a fundamental prerequisite for the efficacious operation of any given organisation. The primary aim of this study is to discern potential alterations within the dimensions of organisational culture across the pre-COVID-19, contemporary, and favoured paradigms within the realm of public administration. The data set was obtained from a cohort of 1189 officials in the Czech Republic. The Organisational Culture Assessment Instrument (OCAI) was deployed for the purposes of conducting an online survey. The dominance of the clan archetype across all examined time frames has been corroborated. In addition, a statistically significant manifestation of these dimensions has been determined. In relation to pertinent variables, specifically gender, age, tenure, manager gender, and the dimensions typifying organisational culture, no statistically significant correlations have emerged. Respondents have not reported a sense of work-life imbalance in the aftermath of the pandemic. In summary, it is deduced that the pandemic has not exerted a drastic influence on the metamorphosis of organisational culture within the ambit of public administration. This study provides invaluable information on the repercussions of the pandemic within a sphere that, as an intangible constituent, often goes under-recognised. Mastery of the positioning of dimensions across diverse archetypes is of paramount significance for managers, as it can provide guidance in the cultivation of an apt organisational culture.

KEYWORDS

human resource; public administration; organisational culture; OCAI; COVID-19; management; performance

1. Introduction

The objectives and purposes of public administration diverge from those of business enterprises.

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However, a shared aspect between them is the presence of an organisational culture. This cultural phenomenon exerts a significant influence on performance and goal achievement, although with distinct characteristics, within both the realm of public administration and business entities. Within the academic domain, consensus on the precise definition of organisational culture (OC) remains elusive. Nonetheless, scholars acknowledge that organisational culture serves as a critical subsystem within an organisation, acting as a determinant of organisational effectiveness and the overall quality of work life for organisational members (e.g., Cameron and Quinn, 1999; Miranda-Wolff, 2022; Schein and Schein, 2016). The composition of the organisational culture encompasses foundational elements: core values, attitudes, and convictions embedded within the organisational framework, leading to resultant patterns of conduct that derive from these shared connotations. This intricate interplay is further represented through symbolic expressions that interlink the beliefs, values, and actions undertaken by members of the organisation (Denison, 1990). Organisational culture emerges as an outcome of the cumulative impact of experiences transmitted to individuals through the process of socialisation. It imparts coherence, diminishes employee uncertainty, exerts influence over job satisfaction and well-being, while also potentially serving as a wellspring of motivation and a competitive advantage. Notably, diverse perspectives illuminate organisational culture from varying angles (e.g., Goffee and Jones, 1998; Trompenaars, 1993). In the context of the present study, the typology outlined by Cameron and Quinn (1999) has been selected as the methodological framework.

In the context of COVID-19 preventive measures, the dynamic of organisational culture is on a transformative trajectory. All entities, including those within the sphere of public administration, are compelled to respond proactively to these changes and embrace contemporary paradigms. This imperative arises, in part, from the need to preserve organisational culture as an essential bedrock for fostering competitiveness and operational efficacy. Anticipations are ripe that discernible alterations have indeed materialised, particularly in tandem with the adoption of remote work arrangements. However, the extent to which these changes have been embraced by employees remains enigmatic.

Formulating a research inquiry to elucidate this matter, the central question arises: Has the pandemic engendered transformations in relational dynamics and the operative environment—synonymous with organisational culture—within the confines of public administration workplaces? If indeed changes have transpired, are they of a nature that garners preferential endorsement from the workforce?

The authors endeavour to yield insight into this quandary, aiming to enrich comprehension regarding the pivotal role of organisational culture, which extends beyond merely influencing employee contentment and extends its purview to the efficacious orchestration of organisational undertakings. The authors aspire to direct the attention of managerial echelons to the imperative of cultivating a robust organisational culture that adeptly reconciles the divergent demands of both personnel and the overarching organisational entity.

The processing procedure ensues thus: primarily, the matter of organisational culture is addressed in relation to the pivotal facets of public administration, along with the explication of organisational culture models. Subsequent to delineating the methodologies used, the statistically treated results derived from the questionnaire survey are discussed and deliberated. Ultimately, the research concludes by examining both its contributions and limitations.

2. Review of literature

The theoretical background of the research is given in the following subsections.

2.1. Organisational culture

Organisational culture stands as a reflection of authority and assumes a pivotal role within leadership objectives. It transcends individual boundaries and encompasses not only the entity itself, but also interpersonal relationships, milieu, human development, identity evolution, performance and contentment, as well as the organisational image and brand. This composite construct interweaves with human resource management practices, organisational performance, and the comportment of both the institution and its workforce (Mikušová et al., 2023).

The comprehension of the concept of organisational culture serves as the linchpin to understanding the intricate fabric of an organisation and its multifaceted dimensions. Though nuances exist in the specific definition of this term, a shared framework underpins the conceptualisation of organisational culture (e.g., A. D. Brown, 1995; Denison, 1990; Hall, 1995; Sackmann, 2006; Schein, 1992).

For the context of this current research, organisational culture is delineated as an amalgamation of fundamental presumptions, values, attitudes, and behavioural norms that are collectively upheld within an organisation. This synthesis is manifested not only in the cognitive, affective, and behavioural dimensions of organisational members, but also in the tangible and intangible artefacts that permeate the organisation's landscape (Mikušová et al., 2023).

The constituent elements of organisational culture do not exist in isolation; hence, several scholars have endeavoured to elucidate their interconnected structural dynamics by devising organisational culture models (e.g., Hall, 1995; Handy, 1993; Hofstede, 2001; Schein, 1992).

In order to manage an organisation holistically, accounting for its cultural underpinnings and deliberately cultivating its cultural fabric to bolster performance, managers must possess a profound comprehension of the organisation's cultural essence. Armed with an in-depth understanding of this cultural terrain, managers can discern its strengths and weaknesses and, thus, tactically select efficient human resource management strategies. This underscores the pragmatic utility of formulated organisational culture typologies. Such typologies empower managers to benchmark their organisation's cultural attributes against archetypal exemplars, thus augmenting their grasp and awareness of its nuanced nuances (e.g., Ansoff et al., 2018; Handy, 1993; Trompenaars, 1993).

The model adopted for this study, designed by Cameron and Quinn (1999), is grounded in the Competing Values Model proposed by Quinn and Rohrbaugh (1983). The rationale for this selection stems from the model's capacity to encapsulate the organisational environment, the managerial approach, and the criteria deployed to gauge organisational success. It rests upon a matrix of dimensions: internal versus external focus and adaptability versus control orientation. Embedded within these dimensions are four distinct archetypal organisational cultures: clan, hierarchy, adhocracy, and market (**Figure 1**).

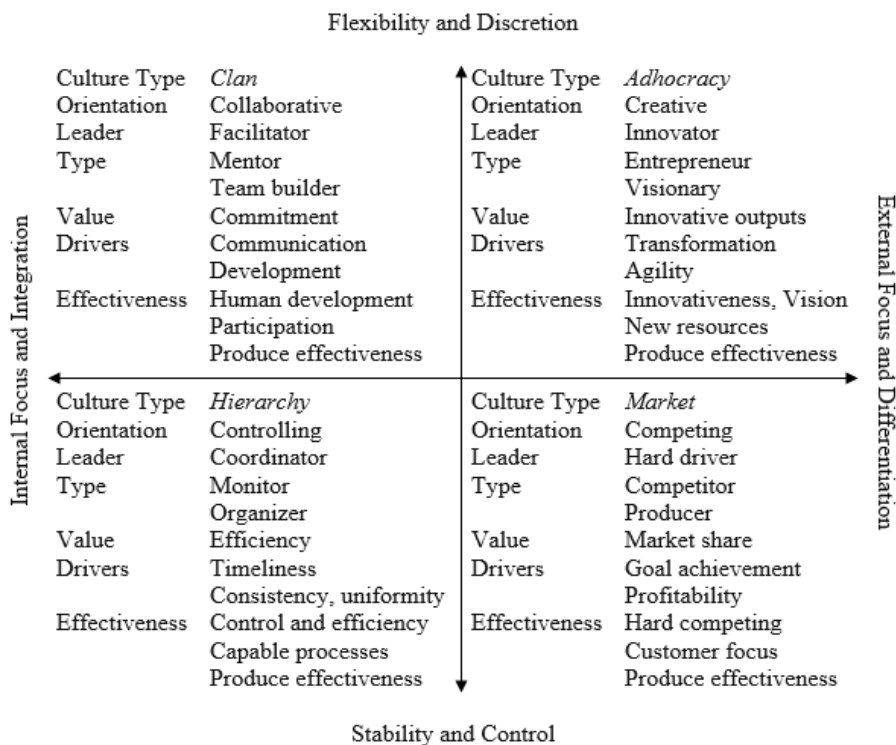


Figure 1. The competing values of leadership, effectiveness, and organisational theory.
Source: Cameron and Quinn (1999).

2.2. Public administration

The contours of functions and responsibilities within public administration are shaped by the outlines of established public interests. Central to this is the inquiry into how public administration executes its mandate, with what efficacy it undertakes its obligations, and how the populace perceives its performance. Nica (2013) argues that bureaucracies exhibit a proclivity for tardy response to the evolving demands of managerial, employee, and customer requisites. Jabbara and Dwivedi (2004) echo this sentiment, opining that the public administrative sector, characterised by its inherent rigidity, fosters nepotism, accountability quandaries, corruption, and a general apathy among civil servants. A pivotal facet here revolves around personnel limitations (Brewer and Walker, 2013).

Goodsell (1989) has discerned five cardinal values underpinning the concerns of the public administrator: a focus on means, moral rectitude, a collective orientation, market responsiveness, and a sense of mission. DeRosia (2022) supplements this framework by adding transparency, accountability, and professionalism.

In the pursuit of both individual and organisational triumph within the public sector, these values find symbiosis with the ethos of organisational culture. It is worth noting that the entire spectrum of organisational climate indirectly reverberates upon the quality of public services (Belac et al., 2017). Vrabková (2019) accentuates the significance of inculcating novel tenets of organisational culture within public administration. In this context, organisational culture emerges as an indispensable pillar, buttressing the edifice of democratic-constitutional principles within the realm of public administration.

2.3. Organisational culture in public administration institutions

The existing literature illuminates recurrent traits within the domain of public administration culture. This sector is often characterised by a propensity for conformity (Feldman, 1985), an emphasis on technical rationality (Adams and Ingersoll, 1990), a process-driven ethos (Claver et al., 1999), a penchant for control (Parker and Bradley, 2000), sluggish growth and innovation (Jabbara and Dwivedi, 2004), a hierarchy-driven culture (Belac et al., 2017), modest professionalism (Drašković et al., 2018), a dearth of quality assessment measures (Jasarevic et al., 2017), a lack of customer orientation (Wynen and Verhoest, 2015), and a dearth of innovation policies (Maia et al., 2021). Officials commonly perceive the organisational culture as bureaucratic or supportive, rather than innovative (Mohelska and Sokolova, 2018), with the perceived need to reinforce leadership in the trust culture (Fairholm et al., 2018).

Jacobs and Crockett (2021) posit that employee *gender* and *age* intricately shape how organisational values impact job satisfaction. Male employees demonstrate a predilection for growth opportunities, information sharing, and an appealing employer brand, whereas female employees tend to favour rules and people-oriented values. Chen et al. (2008) ascertain that women are more inclined than men to characterise their organisational culture as supportive. He et al. (2013) substantiate substantial gender disparities in the dimensions of “cooperation” and “authorisation”, wherein women assign greater significance than men. Notably, the study by Mohelska and Sokolova (2018) concludes that gender differences have limited bearing on individual dimensions of organisational cultures.

Solarte et al. (2015) postulate that companies *led by women* exhibit a greater inclination towards fostering traits of organisational culture such as autonomy, risk-taking, teamwork, compensation, and support, in comparison to male-led counterparts. The salutary influence of female leadership on organisational culture is also corroborated by the findings of Roebuck et al. (2019). On the contrary, Chen et al. (2008) report that female managers are considerably less likely to perceive the organisational culture as affable.

Younger employees often show greater enthusiasm for their roles and show greater comfort during extended work hours. In contrast, older employees, having already established themselves within the organisation, display less concern for competition and alterations (Jacobs and Crockett, 2021). Alike conclusions are reached by Mohelska and Sokolova (2018), who assert that younger individuals tend to be associated with organisations fostering innovative and supportive cultures, whereas older individuals gravitate towards entities with more traditional bureaucratic cultures. This may be due to the *length of employment*. Although younger members perceive the organisational culture as innovative and supportive, their more tenured counterparts, steeped in established paradigms, may not view the organisational culture as innovative.

The COVID-19 era brings challenges for managers. How stable is the workplace environment? What has changed? What has been maintained? How strong was the impact of the pandemic on workplace relations?

The notable change has been the widespread adoption of remote work. This novel remote work environment presents challenges beyond mere email traffic and infrastructure inadequacies (McDowall and Kinman, 2017), extending to matters of cultivating loyalty, improving employee

job satisfaction, and increasing organisational commitment (Camp et al., 2022). Amidst these deliberations, certain researchers have highlighted a negative correlation between remote work and employee productivity (e.g., Farooq and Sultana, 2021).

Krajcsák and Kozák (2022) underscore the impact of the dominant organisational culture on the outcomes of remote work. In institutions with a prevailing market culture, the alteration in organisational behaviour is minimal. On the contrary, in entities with a dominant clan culture, conscientiousness diminishes, while the other three dimensions exhibit augmentation. In the context of a prevalent hierarchy culture, all dimensions experience decline.

The pandemic has also had consequences for employee *well-being* and *work-life balance*. Employee well-being has witnessed a decline between the pre-pandemic period and subsequent COVID-19 phases (Bamberry et al., 2022; C. E. Brown et al., 2021; Vu et al., 2021). Their findings suggest that while organisations have persisted in prioritising employee health and safety during the pandemic, scores related to well-being have decreased.

The COVID-19 crisis should serve as a catalyst for cultivating organisational resilience through learning capabilities (Orth and Schuldis, 2021). In the midst of organisational crises, managers have an opportunity not only to reshape the organisational structure but also to redefine the contours of organisational culture.

3. Methodology

In order to address both the research inquiry and the formulated hypotheses, it becomes imperative to ascertain the prevailing organisational culture type prior to the onset of the pandemic, as well as its present configuration. Moreover, the discernment of the preferred organisational culture type holds significance. Within the ambit of this favoured organisational culture type, respondents will be called upon to contemplate the following query: “Considering your organisation’s aspirations for success in, for instance, the forthcoming five years, what manner of cultural disposition would be requisite?”.

3.1. The research question and hypotheses

Formulated research question is: Has the pandemic changed relationships and the working environment (it means organisational culture) in public administration workplaces? If there have been changes, are these changes that employees prefer?

The authors make the simplistic assumption that if there are changes in organisational culture or its dimensions, it is due to a pandemic.

- In the framework of the research question, hypotheses were constructed:

H1: Predominant type of organisational culture before COVID-19 is the hierarchy culture.

Considering the tasks of public administration bodies and the generally understood characteristics of the work of officials, the hierarchy culture offers itself as the dominant one.

H2: There has been a statistically significant change in the type of organisational culture between the pre-COVID-19 period and the present.

The pandemic required a rapid change to which the public administration had to respond. The authors assume that in order to perform functions in the new conditions, the organisational culture had to change.

H3: There is no statistically significant difference between the current and the preferred type of organisational culture.

The pandemic brought new incentives for the functioning of the authorities. Although the effects were mainly negative, the authors assume that the pressure created also had a positive effect on the ways of doing work, evaluating and decision-making processes, etc., which were reflected in the new organisational culture that officials would like to maintain in the future.

- Other hypotheses relate to the following preferred dimensions.

H4: There is a statistically significant difference in the evaluation of OC dimensions between women and men.

H5: There is a statistically significant difference in the evaluation of OC dimensions by age structure of respondents.

H6: There is a statistically significant difference in the evaluation of OC dimensions by length of employment in the public administration.

H7: There is a statistically significant difference in the evaluation of OC dimensions between managers and subordinates.

H8: There is a statistically significant difference in the evaluation of OC dimensions between female managers and male managers.

The results of these hypotheses will be used to compare with the already established research findings, which are addressed in the theoretical section.

- Personal impact

Attention is also paid to the personal impact of the pandemic on the workers themselves, i.e., on the area of wellbeing and work-life balance. This issue is addressed only marginally. However, to illustrate the personal situation in which the respondents evaluate the different dimensions of organisational culture, the authors also proceed, albeit in a limited way, to the following hypotheses. These hypotheses relate only to the dimensions of the current evaluation.

H9: There is a statistically significant relationship between the dimensions of organisational culture and employees' feelings of exhaustion.

H10: There is a statistically significant relationship between the dimensions of organisational culture and perceptions of work-life balance.

3.2. Organisational culture assessment instrument

To delineate the various types of organisational cultures, Cameron and Quinn (1999) devised the Organisational Culture Assessment Instrument (OCAI). The OC attributes inherent to the scrutinised entities are determined through the evaluation of six distinct content elements, which constitute the

foundation of the questionnaire. These elements encompass the following dimensions (Cameron and Quinn, 1999):

- dominant features of the organisation (characteristics of the environment and atmosphere prevailing in the organisation);
- the way of leadership in the organisation (what is understood as leadership in the company, what is considered as leadership skills);
- the way employees are managed (what characterises the management style, what methods are used);
- organisational cohesion (which ensures organisational cohesion);
- priority strategic factors (what is emphasised in the organisation);
- success criteria (how success is defined in the organisation).

Each of these six dimensions is characterised by four statements, collectively embodying the four distinct culture types elucidated earlier. Respondents are tasked with selecting the statement that best corresponds to the organisational context prior to the pandemic, the existing scenario, and their preferred culture type.

The study cohort comprises officials hailing from regional offices dispersed across the Czech Republic. The dataset consists of 1189 valid responses. The survey was conducted online over a duration of three weeks in March 2022.

3.3. Data processing

The data set was computationally analysed using the statistical software TIBCO STATISTICA 13. The means of the dimensions in each type of organisational culture in the pre-pandemic, current and preferred state are summarised in table. The alterations in their respective scores across the examined periods are meticulously documented. As a preliminary step, the data was subjected to initial scrutiny through the calculation of absolute and relative frequencies. In pursuit of deeper insights and to uncover interrelationships, it was imperative to ascertain the proportional representation of the four distinct types of OC. In this effort, the relative frequencies were reviewed using the chi-square test. The McNemar test was subsequently employed to unveil trends within the organisational culture types across the studied intervals, with the application of the Holm-Bonferroni adjustment to maintain the significance levels. The concluding phase of the analysis involved the application of the chi-square test of independence and the Mann-Whitney test. These were employed to unearth potential associations between culture types and factors that either exert influence or are influenced. The selected significance threshold for these tests was set at 5%. The authors point out that most of the analysis was done with proportions and not with numeric/ordinal variables.

4. Findings and discussion

Data were obtained from 1189 respondents. The characteristics of the respondents are shown in **Figure 2**.

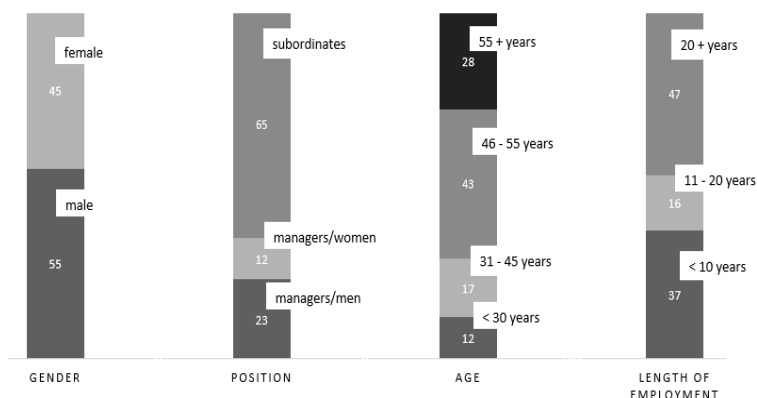


Figure 2. The characteristics of the respondents (%).
 Source: Own research.

4.1. Types of organisational culture

Through the computation of means derived from the relative dimension values, the predilections of the various types during the pertinent periods can be discerned (see **Table 1**). The dimension values are meticulously detailed in the subsequent tables for reference.

Table 1. Means.

	Clan	Adhocracy	Market	Hierarchy
Pre-COVID-19	34.30	23.30	17.95	24.45
Current	29.53	23.02	18.62	28.83
Preferred	46.82	20.66	11.27	21.25

Source: Own research.

This methodology elucidates the determination of the prevalence of organisational culture types during the examined periods. Furthermore, it is noteworthy that organisations exhibit a leaning towards internal focus and, intriguingly, a propensity towards flexibility (see **Figure 3**).

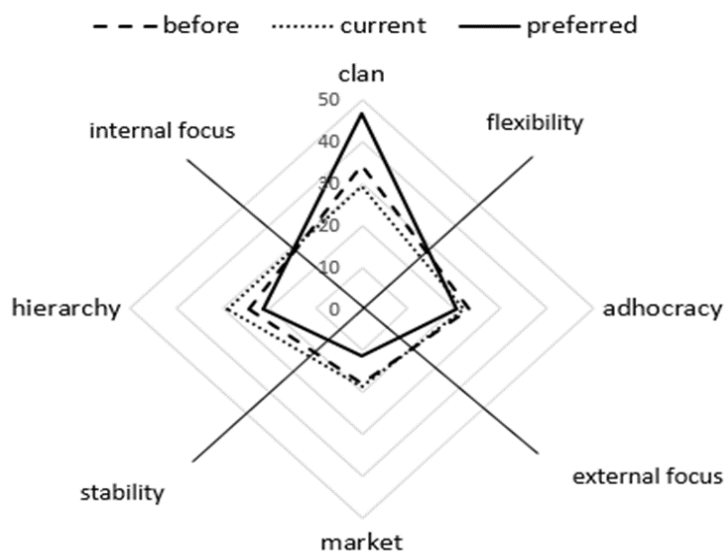


Figure 3. Types of organisational cultures in the periods under review.
 Source: Own research.

In the following, we proceed to examine the types and their dimensions, their statistical significance, and the statistically significant differences between them. These verified insights hold the potential to serve as valuable guidance for managers, leaders, and policy makers, facilitating their strategic decisions in the realm of moulding organisational culture within the realm of public administration.

4.2. Changes in the relative frequency of each dimension in the types of organisational culture over the periods under review

To address the hypothesised assertions, the initial step necessitates the identification of changes manifesting within each dimension. However, it is pertinent to acknowledge that not all variations may attain statistical significance.

This comparative analysis unfolds in two sequential stages. In the first, the chi-square goodness-of-fit test is invoked to ascertain whether the distribution of all four culture types remains uniform. If the calculated p -value falls below the threshold of 0.05, it substantiates, at the 0.05 significance level, the dissimilarity in the distribution of the four types of cultures. This assertion holds true for all dimensions within the current research.

The subsequent stage encompasses post-hoc testing, wherein each possible pairing of culture types is subjected to a chi-square test of goodness-of-fit. The Holm-Bonferroni correction is applied to the significance level for these tests. Statistically significant disparities are designated by an asterisk, while statistically non-significant disparities are denoted by “n.s.” (not significant). Throughout the analysis, the count of respondents remains constant at 1189.

The ensuing tables within the appendix present data in both absolute and relative frequencies, alongside the outcomes of the tests annotated with significance markers.

The Appendix employ the following abbreviations: “C” for clan culture, “A” for adhocracy culture, “M” for market culture, and “H” for hierarchy culture.

4.2.1. Dominant characteristic

Preceding the onset of the COVID-19 pandemic, discernible variations in the representation of the predominant characteristic dimension were established, affirming that within the clan type, the statistical significance of this dimension’s representation is notably higher than in the other typologies. In the current context, a perceptible alteration is observed concerning the hierarchy type; however, this variance does not attain statistical validation. Conversely, within the preferred scenario, statistically significant disparities emerge between the clan type and the remaining archetypes, attributed to the significantly elevated representation of this dimension within the clan (see Appendix).

The count of statistically significant disparities increased progressively over successive periods for the prevailing characteristic dimension. The pandemic prompted a marginal reduction in the perception of a congenial environment (accompanied by a shift towards hierarchy). Conversely, in the preferred scenario, there was a substantial rise in shared values and objectives, alongside an augmented appreciation of the organisation as an extended family.

Notably, the dimension demonstrating the least prevalence, and concurrently exhibiting a

declining trend, pertains to the market type. Respondents do not endorse their organisation as a results-centric entity wherein individuals compete and steadfastly pursue their objectives; such a portrayal does not align with their preferences. This observation is consistent with expectations for the studied organisational type. However, the representation of this dimension in the preferred context remains exceedingly low (a mere 0.5%).

4.2.2. Organisational leadership

In the pre-COVID-19 era, the representation of the organisational leadership dimension within the market culture type demonstrates a statistically significant increase compared to the representation in the clan and adhocracy typologies. However, this difference was not confirmed when compared to the hierarchy culture. In the current and preferred periods, the representation of the organisational leadership dimension in the market type is significantly higher than in the other types. The pandemic has resulted in a greater number of disparities concerning the organisational leadership dimension. These shifts were likely undesirable, as the number of differences in the preferred situation has fallen below the pre-COVID-19 conditions (see Appendix).

Before the COVID-19 pandemic, respondents characterised leadership as assertive and results-focused, with an emphasis on coordination and organisational efficiency. The influence of the pandemic has intensified the focus on outcomes, potentially at the expense of the smooth operational efficiency associated with the hierarchy type. This shift appears to have engendered a less favourable outlook among respondents, as evidenced by their preference for leadership within the organisation to be primarily characterised by coordination, organisation, and seamless operational efficiency.

4.2.3. Management of employees

In both the pre-COVID-19 and current scenarios, the representation of the dimension within the clan culture type is statistically significantly greater than the representation observed in the other cultural types. In the preferred scenario, the dimension's significance within the clan culture persists, although no distinction from the hierarchy culture has been validated.

Turning to the management of employees, respondents did not report perceiving significant changes following the pandemic. However, within the preferred management style, they express a preference for a harmonious amalgamation of a friendly mentor approach, collaborative teamwork, consensus-driven decision-making, and active participation, complemented by job security, adherence to established norms, predictability, and relational stability (refer to Appendix).

4.2.4. Organisation glue

In both the pre-COVID-19 era and the present period, the dimension's representation within the clan culture type demonstrates a statistically significant elevation compared to both the adhocracy and market cultures; however, no definitive contrast is observed in relation to the hierarchy culture. Noteworthy alterations emerge within the preferred organisational archetype, wherein the representation within the clan culture type exhibits a marked superiority over all other typologies (see Appendix).

Conspicuously, there is a lack of significant change related to the factors that promote unity within the organisational environment, namely loyalty, mutual trust, and unwavering commitment. An intriguing observation surfaces within the clan-hierarchy dynamic within the preferred scenario.

Unlike the dimension involving the management of employees, respondents unequivocally favour the clan culture, epitomised by attributes such as collaborative teamwork, active participation, and steadfast commitment, over rigid adherence to formal regulations and policies.

4.2.5. Strategic emphases

In the pre-COVID-19 phase, representation within the adhocracy culture type reveals a statistically significant elevation compared to both the market and hierarchy cultures. However, no conclusive differences are established with respect to the clan culture. During the pandemic, a shift occurs wherein no notable contrast is observed in comparison to the hierarchy culture. This trend reverses in the preferred scenario, wherein once again, no distinct differentiation is noted in comparison to the clan culture (see Appendix).

In times of crisis, the norm is to seek new resources and novel practices. Nevertheless, the present scenario presents a nuanced picture. The innovative approach, characterised by experimentation and the pursuit of opportunities, which gained prominence during the pandemic in comparison to facets like human development, high trust, and openness, has now become intertwined with concepts of control, stability, and permanence. In the preferred period, the strategic emphasis is directed towards both fostering innovativeness and nurturing the growth of individual employees.

4.2.6. Criteria of success

The representation of the success criteria dimension within the adhocracy culture type exhibits a statistically significant elevation when contrasted with the other organisational types. This observation remains consistent across all three periods of study (see Appendix).

Respondents indicate that their organisations define success based on delivering the most distinctive or contemporary service. This outcome merits a more extensive discussion, extending beyond the context of the surveyed organisations, which predominantly do not align with descriptors like dynamic or creative. Nonetheless, even within the typology model, a preference for flexibility over stability is discerned, although not statistically validated. The authors posit that the impetus for this trend could be attributed to factors such as the digitalisation of the state apparatus, the demand for service expansion, and similar influences.

4.3. Hypotheses

To confirm or reject the formulated hypotheses, **Table 2** is created based on the statistically significant representations of the dimensions in the types of organisational culture (see Appendix).

H1: Predominant type of organisational culture before COVID-19 is the hierarchy culture.

The findings presented in **Table 2** illuminate the pre-pandemic landscape, revealing the emergence of the hierarchy culture in two dimensions, albeit without indicative disparities with any other culture type. Evidently, the statistically significant dominance of the hierarchy culture does not manifest across any of the six dimensions. Consequently, the postulation asserting the hierarchy culture's prevalence as the primary organisational culture type prior to COVID-19 cannot be substantiated.

H2: There has been a statistically significant change in the type of organisational culture between

Table 2. Statistically significant representation of dimensions in types of organisational culture.

	Clan			Adhocracy			Market			Hierarchy		
	B	C	P	B	C	P	B	C	P	B	C	P
1. Dominant characteristic	*	n.s.	*									n.s.
2. Leadership							n.s.	n.s.		n.s.	n.s.	*
3. Management of employees	*	*	*									
4. Organisational glue	n.s.	n.s.	*							n.s.	n.s.	
5. Strategic emphases	n.s.		n.s.	n.s.	n.s.	n.s.						n.s.
6. Criteria for success				*	*	*						

Note: B—before COVID-19; C—current; P—preferred type; *—statistically significantly higher representation; n.s.—difference not statistically significantly confirmed.

For instance, consider the line of dimension of dominant characteristics in the **Table 2** and in the Appendix. At the time of pre-COVID-19 (period B), this dimension had the highest relative value (48.7) in the clan type. In the current period (period C), the value was still the highest in the clan type, although it decreased to 46.6. The reduction is not statistically significant (n.s.). During this period, a statistically insignificant shift (ns) to the hierarchy type was recorded (33.3). The dimension was preferred (period P) with a relative value of 85.7, which means statistically significantly higher representation (*).

Source: Own research.

the pre-COVID-19 period and the present.

During the pre-pandemic period, the clan culture notably prevails in the dimensions of dominant characteristics and management of employees, with statistically significant prevalence. Additionally, no discernible difference is established with the hierarchy culture in the organisational cohesion dimension, and with the adhocracy culture in the strategic emphases dimension.

In the current period, a conspicuous predominance of the clan culture emerges in the dimension pertaining to the management of employees, while no statistical variance with the hierarchy culture is discerned within the dimensions of dominant characteristics and organisational cohesion.

A comparative assessment is undertaken between the representation of diverse culture types before the COVID-19 era and the present using the McNemar test, with the Holm-Bonferroni correction applied to the significance level. Beyond the comparative proportions of culture type representation before and after COVID-19, the “movements” between culture types are meticulously reported (see **Table 3**).

According to McNemar’s test at an overall significance level of 0.05, there was no difference between the pre-COVID period and current in the representation of clan and market, and there was a difference for adhocracy and hierarchy. Adhocracy representation was statistically significantly higher before COVID than current. Hierarchy representation was statistically significantly lower before COVID than current.

Among respondents who endorsed the clan culture before the COVID era, a consistent pattern of 67% maintained their preference for the clan culture in the present scenario. However, a subset transitioned to the adhocracy culture 12% of the time, to the market culture 1% of the time, and to the hierarchy culture 20% of the time.

Further disparities became evident in the strategic emphasis dimension, whereby the

Table 3. Dimensions of the dominant characteristic and changes in its representation in the types of organisational culture in the pre-COVID-19 and current period.

Type	Pre-COVID-19		Current		Significance	
	abs.	%	abs.	%		
Clan	579	48.7	556	46.8	n.s.	$K = 0.161; p = 0.688$
Adhocracy	264	22.2	133	11.2	*	$K = 7.27; p = 0.007$
Market	132	11.1	107	9.0	n.s.	$K = 0.35; p = 0.556$
Hierarchy	214	18.0	393	33.0	*	$K = 13.29; p = 0.000$
Pre-COVID-19	Current					
	Clan	Adhocracy	Market	Hierarchy		
Clan ($n = 579$)	388 (67%)	69 (12%)	6 (1%)	116 (20%)		
Adhocracy ($n = 264$)	106 (40%)	26 (10%)	26 (10%)	106 (40%)		
Market ($n = 132$)	13 (10%)	25 (19%)	37 (29%)	57 (43%)		
Hierarchy ($n = 214$)	45 (21%)	12 (6%)	38 (18%)	119 (56%)		

Note: n —number of respondents; K —chi-square test statistic; p —value; abs.—absolute value; *—statistically significantly higher representation; n.s.—difference not statistically significantly confirmed.

Source: Own research.

representation of the clan culture was statistically significantly more prevalent before the COVID era than in the present. Notably, for the remaining dimensions, no statistically significant distinctions were observed across any culture type.

In conclusion, the proposition positing a statistically significant alteration in the organisational culture type between the pre-COVID-19 phase and the present remains unsubstantiated.

H3: There is no statistically significant difference between the current and the preferred type of organisational culture.

In the current phase, the statistical significance attributed to the clan culture type remains robust. This significance also persists when considering the preferred culture type. Notably, the clan culture type's prominence is most pronounced within the dimensions of dominant characteristics, management of employees, and organisational cohesion. However, the difference does not achieve statistical confirmation within the dimension of strategic emphases for the type of adhocracy culture.

Once again, a parallel analysis is conducted, juxtaposing the representation of the current and preferred culture types through McNemar's test, while employing the Holm-Bonferroni correction for the significance level (as detailed in **Table 4**).

Based on McNemar's test, executed at an overarching significance threshold of 0.05, disparities between the current and preferred states emerge for the clan, market, and hierarchy culture types. Specifically, the representation of the clan culture type experiences a statistically significant reduction from the current state to the preferred state. On the contrary, the representation of the types of culture of the market and hierarchy demonstrates a statistically significant escalation from the current to the preferred state. The second section of the table underscores that a significant proportion of respondents (90%) who initially identified with the clan culture type have consistently adhered to this choice as their preferred culture type.

Table 4. Dimensions of the dominant characteristic and changes in its representation in the types of organisational culture in the current and preferred period.

Type	Current		Preferred			Significance
	abs.	%	abs.	%		
Clan	556	46.8	1019	85.7	*	$K = 57.02; p = 0.000$
Adhocracy	133	11.2	88	7.4	n.s.	$K = 1.44; p = 0.230$
Market	207	9.0	6	0.5	*	$K = 14.06; p = 0.000$
Hierarchy	393	33.0	76	6.3	*	$K = 38.46; p = 0.000$

Current	Preferred			
	Clan	Adhocracy	Market	Hierarchy
Clan ($n = 556$)	500 (90%)	17 (3%)	0 (0%)	39 (7%)
Adhocracy ($n = 133$)	94 (71%)	32 (24%)	0 (0%)	7 (5%)
Market ($n = 207$)	183 (88%)	12 (6%)	12 (6%)	0 (0%)
Hierarchy ($n = 393$)	331 (84%)	31 (8%)	0 (0%)	31 (8%)

Note: n —number of respondents; K —chi-square test statistic; p —value; abs.—absolute value; *—statistically significantly higher representation; n.s.—difference not statistically significantly confirmed.

Source: Own research.

Within the criteria for success dimension, no substantial differentiation is observable between the current and preferred states for any culture type. However, in the remaining dimensions, analogously to the dominant characteristic dimension, compelling evidence points to a statistically significant increase in the representation of the clan culture type as the preferred choice in contrast to the present phase.

The hypothesis that there is no statistically significant difference between the current and preferred type of organisational culture cannot be rejected.

Other hypotheses H4–H8 relate to preferred dimensions following.

Preferred dimensions: dominant characteristic: clan; leadership: hierarchy; management of employees: clan; organisational glue: clan; strategic emphases: adhocracy; criteria for success: adhocracy. One result is presented in the following table (**Table 5**).

Table 5. Dimension organisational glue in clan type.

	Factor	Variant	abs.	%	p -value
H4	Gender	Male ($n = 654$)	409	62.5	0.983 ($K = 0.00$) chi-square test of independence
		Female ($n = 535$)	334	62.4	
H5	Age	≤ 0 ($n = 144$)	69	47.8	0.065 ($U = 3554$) Mann-Whitney test
		31–45 ($n = 202$)	101	50.0	
		46–55 ($n = 509$)	352	69.1	
		> 55 ($n = 334$)	220	66.0	
H6	Length of employment in the public administration	≤ 10 ($n = 434$)	245	56.5	0.160 ($U = 3719$) Mann-Whitney test
		11–20 ($n = 195$)	119	61.3	
		> 20 ($n = 560$)	377	67.4	
H7	Work position	Manager ($n = 409$)	208	50.8	0.017* ($K = 5.75$) chi-square test of independence
		Subordinate ($n = 780$)	534	68.5	
H8	Manager	Male ($n = 264$)	132	50.0	0.867 ($K = 0.03$) chi-square test of independence
		Female ($n = 145$)	75	52.2	

Note: n —number of respondents; K —chi-square test statistic; U —Mann-Whitney test statistic; abs.—absolute value; *—statistically significantly higher representation.

Source: Own research.

The representation of the clan culture does not exhibit statistically significant dependence on gender, age category, length of employment, and the gender of the manager ($p > 0.05$). However, a statistically significant correlation between job position and the representation of clan culture ($p < 0.05$) is identified. Notably, subordinates tend to opt for the clan culture significantly more frequently than managers.

Conversely, for the remaining dimensions, no statistically significant relationships with gender, age category, length of employment, job position, or gender of the manager are established ($p > 0.05$).

The transformative impact of the pandemic has introduced changes that potentially include work exhaustion and disruptions in work-life balance, among other factors. Hence, although constrained in scope, these effects are discernible across each dimension of the present culture type (refer to **Table 6**).

Table 6. Dimension dominant characteristic in clan type.

Factor	Variant	abs.	%	p-value
Work-life balance	Can do both ($n = 641$)	251	39.2	0.182 ($K = 4.86$) chi-square test
	Work ($n = 403$)	220	54.7	
	Personal life ($n = 69$)	38	54.5	
	Can't do both ($n = 76$)	44	58.3	
Do you feel exhausted?	Never/very little ($n = 465$)	220	47.3	0.856 ($U = 4385$) Mann-Whitney test
	Sometime ($n = 516$)	239	46.3	
	Frequently ($n = 209$)	95	45.5	

Note: n —number of respondents; K —chi-square test statistic; U —Mann-Whitney test statistic.

Source: Own research.

Clan representation was not statistically significantly related to work-life balance or feelings of exhaustion ($p > 0.05$). The same conclusions were drawn for all other dimensions and types.

H9 and H10 on the statistically significant relationship between the dimensions and perceptions of work-life balance, and employees' feelings of exhaustion cannot be confirmed.

4.4. Summary

For practical utility, understanding the specific positioning of individual dimensions within the overall organisational culture type becomes imperative. This comprehension facilitates the formulation of an effective strategy for cultivating an appropriate organisational culture.

The subsequent figure illustrates the prevailing culture type wherein each dimension dominates during the stipulated periods. It further presents the proportion of respondents who maintain their classification within the same type when assessing a particular dimension, along with the predominant culture type into which respondents have transitioned (as depicted in **Figure 4**).

For instance, consider the dimension of dominant characteristics: “68%, hierarchy 20%”. This signifies that 68% of respondents who initially designated this dimension as clan before the COVID-19 era continue to perceive it as such in the current period. In particular, the most notable shift, accounting for 20% of the ratings, turned into the hierarchy type.

	pre-Covid19	current	preferred
Dominant characteristic	clan	clan	clan
The organization is a very personal place. It is like an extended family. People seem to share a lot of themselves.			
	68 %; hierarchy 20 %		90 %; hierarchy 7 %
Organizational leadership	market	market	hierarchy
Market: The leadership is generally considered to exemplify entrepreneurship, innovation, or risk taking.			
Hierarchy: The leadership is generally considered do exemplify coordinating, organizing, or smooth-running efficiency.			
	70 %; hierarchy 17 %		30 %; hierarchy 41 %
Management of employees	clan	clan	clan
The management style is characterized by teamwork, consensus, and participation.			
	75 %; hierarchy 16 %		91 %; hierarchy 6 %
Organizational glue	clan	clan	clan
The glue that holds the organization together is loyalty and mutual trust. Commitment to this organization runs high.			
	72 %; hierarchy 13 %		84 %; adhocracy 11 %
Strategic emphases	adhocracy	adhocracy	adhocracy
The organization emphasizes acquiring new resources and creating new challenges. Trying new things and prospecting for opportunities are valued.			
	72 %; hierarchy 12 %		58 %; clan 20 %
Criteria for success	adhocracy	adhocracy	adhocracy
The organization defines success on the basis of having the most unique or newest products. Leader is innovator.			
	76 %; market 11 %		68 %; market 12 %

Figure 4. Dominant dimensions in the periods under review.

Source: Own research.

Similarly, examining the preferred state, “90%, hierarchy 7%” indicates that 90% of respondents who assigned the clan classification to this dimension in the current period have retained the same assessment in the preferred state. Conversely, the predominant redirection, amounting to 7% of ratings, occurred towards the hierarchy type.

It is evident that respondents largely maintain a consistent assessment of the organisational culture across various dimensions. However, an exception emerges in the context of organisational leadership, specifically in the evaluation shift from the current to the preferred period. Notably, during the pre-COVID to current period, respondents primarily gravitate towards the hierarchy type when revising their evaluation. This shift indicates a greater adoption of formalised management methods and evaluation strategies. Although the transition towards hierarchy in the current to preferred period is less pronounced, it remains prevalent, thereby underscoring respondents’ preference for orderliness, rules, and stability.

There is no statistically significant association between gender, age, length of employment, gender of the manager, and the various dimensions of organisational culture types. As such, the study’s findings fail to affirm the assertions made by Jacobs and Crockett (2021), Mohelska

and Sokolova (2018) regarding the influence of age and length of employment, He et al. (2013) and Chen et al. (2008) regarding gender influence, as well as the influence of female managers posited by Solarte et al. (2015) and Roebuck et al. (2019). The outcome aligns with the anticipated result that managers are less inclined to prefer the clan type in comparison to their subordinates. Furthermore, the findings align with the assertion of Mohelska and Sokolova (2018), refuting significant gender differences across individual dimensions of organisational cultures.

The research results diverge from the claims made by Maia et al. (2021) and Jabbra and Dwivedi (2004), suggesting the absence of innovation policies within organisational culture. Similarly, while the findings do not fully parallel the conclusions drawn by Mohelska and Sokolova (2018), who assert a lack of innovative approaches among officials, the study reveals a prevalence of innovative perspectives across all periods. In line with the observations made by Fairholm et al. (2018), respondents echo the need for fortifying trust-culture leadership.

The study's results indicate that respondents do not encounter statistically significant feelings of exhaustion or disruptions in work-life balance within the post-pandemic context. This outcome contrasts with the contentions of C. E. Brown et al. (2021) and Farooq and Sultana (2021). While partial agreement can be found with the assertion made by Krajcsák and Kozák (2022) regarding a decrease in conscientiousness within organisations exhibiting a dominant clan culture, this correlation lacks statistical significance.

In summary, the hypothesis suggesting the hierarchy culture as the predominant organisational culture before COVID-19 cannot be validated. Similarly, the hypothesis positing a statistically significant change in organisational culture type between the pre-COVID-19 and present periods cannot be substantiated. Conversely, the hypothesis postulating no statistically significant distinction between the current and preferred organisational culture types cannot be rejected.

5. Conclusion

This study has examined the impact of COVID-19 on the organisational working environment. For public administration entities, an appropriate organisational culture is one that not only ensures compliance with legal obligations but also facilitates the attainment of other specific benefits. These benefits notably include increased service efficiency, improved public trust, improved relations with control bodies, and a closer alignment with its primary stakeholders, the citizens.

Limitations: It is important to acknowledge certain limitations of this study. The retrospective assessment of organisational culture types in the pre-COVID-19 era might have been subject to inaccuracies due to the time delay involved (Mikušová et al., 2023). The research operates under the simplifying assumption that any observed changes can be attributed solely to the pandemic. The exploration of wellbeing and work-life balance is constrained in its scope.

Contribution: The findings of this study have significant implications for public administration managers. Managerial practices that excessively emphasise competition and operational efficiency, driven by a desire to secure a sustainable position through performance, may clash with cultural values that prioritize a familial working atmosphere and formal procedures. Such values are associated with the perceived attributes of clan culture. Understanding the placement of dimensions within various culture types empowers managers to contemplate values and supports the

establishment of a robust organisational culture. This is achieved by devising strategies that promote the integration of values by officials, fostering an environment that downplays conflicting values.

It is worth noting that no single culture can be unequivocally deemed superior to another. The concept of an “ideal” culture is elusive; instead, an appropriate culture is context-dependent. In the context of contemporary institutions, adaptability, innovation, and evolution are indispensable. The process of shaping organisational culture can play a crucial role in facilitating these qualities (Mikušová et al., 2023).

Author contributions

Conceptualization, MM and TK; methodology, MM and IVR; software, TK; validation, MM and NK; formal analysis, MM; investigation, MM; resources, TK, IVR and NK; data curation, TK; writing—original draft preparation, MM; writing—review and editing, TK and NK; visualization, TK; supervision, MM; project administration, MM; funding acquisition, MM. All authors have read and agreed to the published version of the manuscript.

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Conflict of interest

No conflict of interest was reported by all authors.

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Appendix

Dominant characteristic												Organization glue																
	pre-Covid19				current				preferred				pre-Covid19				current				preferred							
culture	C	A	M	H	C	A	M	H	C	A	M	H	C	A	M	H	C	A	M	H	C	A	M	H	C	A	M	H
abs.	579	264	132	214	554	132	107	396	1,019	88	6	75	547	82	157	403	522	157	120	390	742	182	157	108				
rel.	48.7	22.2	11.1	18	46.6	11.1	9	33.3	85.7	7.4	.5	6.3	46	6.9	13.2	33.9	43.9	13.2	10.1	32.8	62.4	15.3	13.2	9				
p-value	0.000 (K=61.26)				0.000 (K=74.34)				0.000 (K=373.65)				0.000 (K=74.68)				0.000 (K=59.02)				0.000 (K=142.83)							
post-hoc	C	A	M	H	C	A	M	H	C	A	M	H	C	A	M	H	C	A	M	H	C	A	M	H	C	A	M	H
C	-	*	*	*	-	*	*	n.s.	-	*	*	*	-	*	*	n.s.	-	*	*	n.s.	-	*	*	*	-	*	*	*
A	-	-	*	n.s.	-	-	n.s.	*	-	-	*	n.s.	-	-	n.s.	*	-	-	n.s.	*	-	-	n.s.	n.s.	-	-	n.s.	n.s.
M	-	-	-	n.s.	-	-	-	*	-	-	-	*	-	-	-	*	-	-	-	*	-	-	-	*	-	-	-	n.s.
H	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Organizational leadership												Strategic emphases																
abs.	157	170	510	325	138	145	554	352	226	170	201	592	321	421	208	239	177	478	201	333	359	428	195	207				
rel.	13.2	14.3	42.9	29.6	11.6	12.2	46.6	29.6	19	14.3	16.9	49.7	27	35.4	17.5	20.1	14.8	40.2	16.9	28	30.2	36	16.4	17.5				
p-value	0.000 (K=44.88)				0.000 (K=62.70)				0.000 (K=62.53)				0.002 (K=14.66)				0.000 (K=30.96)				0.000 (K=21.01)							
post-hoc	C	A	M	H	C	A	M	H	C	A	M	H	C	A	M	H	C	A	M	H	C	A	M	H	C	A	M	H
C	-	n.s.	*	*	-	n.s.	*	*	-	n.s.	n.s.	*	-	n.s.	n.s.	n.s.	-	*	n.s.	*	-	n.s.	*	*	-	n.s.	*	*
A	-	-	*	*	-	-	*	*	-	-	n.s.	*	-	-	*	*	-	-	*	n.s.	-	-	*	*	-	-	*	*
M	-	-	-	n.s.	-	-	-	*	-	-	-	*	-	-	-	n.s.	-	-	-	n.s.	-	-	-	n.s.	-	-	-	n.s.
H	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Management of employees												Criteria of success																
abs.	692	75	94	328	623	107	132	327	849	57	44	239	151	648	182	208	94	623	214	258	145	547	201	296				
rel.	58.2	6.3	7.9	27.6	52.4	9	11.1	27.5	71.4	4.8	3.7	20.1	12.7	54.5	15.3	17.5	7.9	52.4	18	21.7	12.2	46	16.9	24.9				
p-value	0.000 (K=132.12)				0.000 (K=91.11)				0.000 (K=230.03)				0.002 (K=88.57)				0.000 (K=83.23)				0.000 (K=50.81)							
post-hoc	C	A	M	H	C	A	M	H	C	A	M	H	C	A	M	H	C	A	M	H	C	A	M	H	C	A	M	H
C	-	*	*	*	-	*	*	*	-	*	*	n.s.	-	*	n.s.	n.s.	-	*	*	*	-	*	n.s.	*	-	*	n.s.	*
A	-	-	n.s.	*	-	-	n.s.	*	-	-	n.s.	*	-	-	*	*	-	-	*	*	-	-	*	*	-	-	*	*
M	-	-	-	*	-	-	-	*	-	-	-	*	-	-	-	n.s.	-	-	-	n.s.	-	-	-	n.s.	-	-	-	n.s.
H	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Note: *—statistically significant differences; n.s.—statistically non-significant differences (= not significant); K—chi-square test statistic; significance level 0.05; C—clan culture; A—adhocracy culture; M—market culture; H—hierarchy culture.

Source: Own research.