
Internal Communication Satisfaction while Remote Work: The Organizational Culture Perspective

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Abstract:

Purpose: The purpose of this article is to answer the question whether the Organizational Culture Affect Communication Satisfaction in Remote and Hybrid Work Settings.

Design/Methodology/Approach: In this study two stages of methodology were applied with the systematic literature review as the first one and second data collection (N=701) by the means of a quantitative research. Two already verified, reliable questionnaires were adopted - OCAI (Organizational Culture Assessment Instrument developed by Cameron and Quinn 1999) for the company culture assessment and the CSQ (Communication Satisfaction Questionnaire developed by Downs and Hazen 1977) for assessing the communication satisfaction evaluation, both in remote and hybrid settings.

Findings: The results presented show differences in communication satisfaction depending on perceptions of organizational culture in remote and hybrid work. Perceived organizational culture affects communication satisfaction ratings, but in differently across each of dimensions assessed. The highest satisfaction scores were reported by employees assessing their organization culture as Clan, slightly smaller was reported by those assessing the culture as Adhocracy, next Hierarchy and the lowest satisfaction was shown by those who rated the organization culture as Market. Employees rating their organization culture as Clan are more satisfied than others show greater satisfaction in six of the eight dimensions.

Practical implications: Managers seeking to improve the communication satisfaction of their employees should simultaneously work on improving communication – which seems obvious – but also on organizational culture. Introducing elements of the e.g., clan culture into the daily remote or hybrid activities of employees will increase their satisfaction with communication. Having that in mind managers would influence culture change more attentively.

Originality value: This study measures how much are employees satisfied with communication while working in remote or hybrid conditions with relation to organizational culture as they perceived it. In the remote work condition, when communication media are similar, the organizational culture has important influence on employees communication satisfaction.

Keywords: Communication satisfaction, organizational culture, remote work, hybrid work.

JEL classification: D83, M12, M14.

Paper type: Research article.

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1. Introduction

Communication is one of the most important elements of management in an organization. In the work environment, it refers to communicating at work on work-related topics. Organizations develop and establish communication schemes and routines to meet the needs of internal and external stakeholders.

Since 2019 the communication behaviour and patterns had to change. By the beginning of 2022 – pandemic was still considered as blooming – the tools and means of remote and hybrid communication had been already set in organizations, understood by its members and implemented on the regular basis into everyday use by organization internal stakeholders (employers and employees).

Before pandemic the patterns to manage virtual teams were already used and available to implement in the remote circumstances, but that was a *modus operandi* of only those companies whose activity took advantage of this type of communication and management. A virtual groups, contrary to traditional ones, used to work in dispersion in terms of place (even on different continents), time (various time zones) organizational structures and cultures, connected by a communication technology network worked well even before the pandemic crisis.

In communication the experiences could be implemented and facilitated, because it was conscious decision of organizations whereas pandemic had changed conditions and circumstances into situation with no other choice than virtual work no matter if it suits to the sector, branch or even employer – employee customs.

Having in mind the fact that it was an obligation to shift to remote communication at work, after some time for adjustment, the question arose – was this new type of communication largely limited to electronic media satisfactory to employees? Pandemic has changed the way people were and are communicating – remote or hybrid. The judgement of communication satisfaction was suspected to change. These changes affected all organizations, regardless of the type and size.

The evaluation of organizational communication is affected by many aspects, and it can be studied from many perspectives (look into literature review part). In case of this study, organizational culture was chosen as an element that potentially differentiated this assessment. The main research question of this study was therefore defined as:

RQ1: Does Organizational Culture Affect Communication Satisfaction in Remote and Hybrid Work Settings?

The study meets requirements for the basic research – two standardized tools widely described and verified by many researchers were used to diagnose the existing state

– assessment of the type of organizational culture and satisfaction with communication.

2. Literature Review

Vast amount of literature on managing virtual teams published last century assures that the method of remote work was known, familiar and used. Among recognized advantages of distant, remote work enumerated before pandemic several were named – Boell, Campbell, Cecez-Kecmanovic and Cheng in metanalysis from 2013 focused on employee and organizational levels.

They listed potential advantages at employee level as: financial advantage (e.g., saving on rent, travel, food, clothing, etc.) increased work-life balance, spatial mobility (work from different places), increased work autonomy (freedom in structuring own work), increased productivity (working in an environment with fewer distractions and using time saved on commuting productively) and increased job satisfaction (by increased flexibility to manage when, where and how to work).

Among advantages at organizational level, they put elements like increased work morale (by benefit from increased job satisfaction), recruitment and retention of employees, productivity gains, improved agility (by access to work related information regardless of time and space), financial advantages (organizations may be able to incur cost savings, such as in rent, equipment, etc.) (Boell *et al.*, 2013).

For balance Boell *et al.* (2013) also presented potential challenges at the individual level as work-life blurring (by permeable boundary between work and non-work) socialization (by decreasing the potential for social and informal interactions with colleagues) career and workplace involvement (by feeling more distant from their workplace and what is going on in the office), trust (by fewer face-to-face interactions) technical support (when facing technical problems the ability to receive direct technical support is reduced) and interruptions (potential of unwanted interruptions can increase).

Among potential challenges at the organizational level they recognized (Boell *et al.*, 2013) management practices (management by objectives instead of direct supervision), legal framework (Telework may be associated with legal uncertainties for organizations), teamwork and collaboration (working with others and building of implicit shared knowledge can be hindered), expertise and training (Organizations and their staff may need specific expertise for engaging in telework), infrastructure and technology (telework requires sufficient infrastructure at both ends and in-between), security (access to data and communication from outside an organization need to be secure), costs (setting up of telework requires upfront investment in technology and people).

But on one hand side "... not all tasks are suitable for this type of work arrangement. Consider operating a forklift, caring for critically ill patient, or preparing and serving meals for restaurant customers." (Allen, Golden, and Shockley, 2015). On the other hand in 2019 all possible jobs and tasks were "by force" transferred to remote mode because of the pandemic. That was also the time when the perception of remote work advantages had rapidly changed (van Zoonen *et al.*, 2021; Al-Habaibeh *et al.*, 2021; Aloisi and De Stefano, 2022).

The parallel issue to the forced remote work was also the forced remote communication. Communication pattern had to be changed – the direct, face-to-face interaction was excluded from the daily routine and practical usage. It was replaced by ICT and CMC tools, the feature of which is indirect connection.

Being forced to work on-line and to communicate this way people at first were delighted with possibilities to reach and contact everyone, every time and everywhere, it was also convenient for economic reasons (Blanchard, 2021; Garavand *et al.*, 2022). With time people started to be overwhelmed with the necessity to be reached all the time and expectation to be available for communication 24/7, together with the drawbacks in the form of feeling of loss of face-to-face discussion and lack of informal meetings (Al-Habaibeh *et al.*, 2021). The communication fatigue occurred (Zalewska-Turzyńska, 2022).

After more than 2 years of virtual and hybrid communication we consider that practice of communication as stable / stabilized some practices and patterns of communication while remote and hybrid work had been set and are obeyed. The procedures had hardened.

Communication:

Impact of internal communication on organization management cannot be overestimated. Internal communication has a lasting effect on whole organization starting from organizational productivity, competitiveness, and efficiency (Martinez and Hurtado, 2018; Kersley and Martin, 1997), improvement of internal communication leads to better performance including economic one (Garcia-Alcaraz *et al.*, 2017; Andersen and Foss, 2005; Tourish and Hargie, 1996) and encourages innovations and supports change management (Ober and Kochmańska, 2021; Kitchen and Daly, 2002).

Communication plays also crucial role in formulating and executing the organizational strategy (Quirke, 2017; Stegaroiu and Talal, 2014). Different studies have implicated that internal communication is related to work values (Chan, Ben Yedder, and Vipulakom, 2020), also identified mutually beneficial connection between the internal communication and organizational climate (Ahmad *et al.*, 2010) leadership and leadership styles (Ophilia and Hidayat, 2021; Men, 2014), employee management (Kang and Sung, 2017).

Analysis of communication effectiveness play a useful role in determining the organizational identification (Sun *et al.*, 2021), organizational commitment (Ilyash *et al.*, 2019) and job satisfaction (Akpınar *et al.*, 2013). Moreover internal communication helps in establishing clear expectations for employees (Fielden, Woolnough and Hunt, 2021), their motivation, (Ramadanty and Martinus, 2016), job performance (Zhang and Venkatesh, 2013), and it is proved that internal communication had a direct Impact on building trust with employees (Ndlovu, Quaye, and Saini, 2021; Mishra and Boynton, 2009).

Since the communication impacts all parts of organization and supports all processes inside it is crucial for company managers to support or even ensure employees satisfaction while communication processes. It became even more important in case of forced on-line work, when the direct communication face-to-face (without any means of technology) was not possible, excluded from everyday routine, or sometimes even forbidden by law. The only communication possible was to rely on technology-mediated tools.

Satisfying relationships with other people are established through communication, therefore ability to communicate well is important. The researchers who did their research before pandemic found that the downward communication satisfaction was rather low. Morgan and Schieman (1983) found that downward communication was not improving organizational productivity, in fact the satisfaction from it was lowering with lower the position in the organizational structure (survey of 30,000 employees). The lower position the lower communication satisfaction - 40% of the managers, 39% of the professionals, 32% of the clericals and 26% hourly workers evaluated downward communication as good or very good.

Foehrenbach and Rosenberg (1982) with the survey of 32.000 employees found quite a high level of satisfaction with downward communication. 71% of survey participants stated that organization informs its staff well 65% agreed that workers get enough information for own work, 51% agreed that downward communication was accurate and honest.

Communication Satisfaction Questionnaire (CSQ) was developed by Downs and Hazen (1977) in order to analyse the connection between communication and job satisfaction. It was worked out in two stages. The final questionnaire was reduced to 40 items (five for each factor) with Likert-type scales (7-point, from extremely satisfied to extremely dissatisfied). Downs and Hazen – the test-retest reliability was 0.94, and the factor structure was demonstrated extremely stable (Tkalcic Verčič *et al.*, 2007). This measuring instrument is rather short and simple in application.

Downs and Hazen identified primarily 7 subsequent dimensions, that was the Satisfaction with Communication Climate, with Superiors, with Organizational Integration, with Media Quality, Horizontal Informal Communication, General

Organizational Perspective, with Communication with Subordinates, the 8th was about job satisfaction (Downs and Hazen, 1977).

Gray and Laidlaw (2004) confirmed the CSQ has gained the most widespread use in scholarly research – it was studied also by Hecht; Crino and White; Hamilton; Greenbaum; Clampitt and Willihnganz' and by Meintjes and Steyn (comparison of each can be found at Meintjes and Steyn, 2006).

Nonetheless there were some doubts (Tkalac Verčič *et al.*, 2021) concerning validity of the factor structure of the Downs and Hazen CSQ original questionnaire. Deconinck, Johnson, Busbin and Lockwood (2008) questioned the validity and suggested 5-factor solution as more valid than the 8-factor one, Greenbaum, Clampitt and Willihnganz (1988) 6-factor solution, while Pincus (1986) came to a structure composed of 9 factors. In this paper the questionnaire (Deconinck *et al.*, 2008) had been used with the following dimension considered:

- Co-worker Communication – covers extent to which horizontal and informal communication is accurate and free flowing;
- Supervisor Communication – two-way communication with supervisors; consulting and participative styles;
- Media Quality – describes quality of meetings organization and given directives;
- Corporate Information – deals with the broadest kind of information about the organization as a whole. It includes items on information about the organization's financial standing and notification about changes;
- Organizational Integration – covers the extent to which individuals receive feedback on the immediate work environment;
- Communication Climate – includes communication on personal and organizational level, verifies how communications environment stimulates employees to meet organizational goals and judges' attitude toward organization;
- Personal Feedback – states how employees are judged and how their performance is being appraised;
- Subordinate Communication – focuses on two-way communication with subordinates. Only supervisors respond to these items.

Organizational Culture:

Although the concept of organizational culture had its origin in anthropology where rituals, myths, languages, values, beliefs, and practices of peoples has been investigated, it came to management almost 100 years ago and settled down. Tharp (2009) relates the final phase of the famous Hawthorne studies at the Western Electric Company conducted in the 1930s as first systematic attempt to use of a concept of culture to understand the work environment.

On the field of Organization Theory the interest on organizational culture bloomed in the late 1970's (Turner, 1998) and at the 1980s (Frost *et al.*, 1991). The reason for it was the ubiquitous fatigue occurring at that time, caused by the number processing concentrated on easily measurable, quantitative variables. The culture perspective brought the hope to be a key to improve profitability as a result of improved morale, loyalty, harmony – qualitative based measures. This is also one of the reasons the organizational culture is taken in this paper as the reference point.

Soon many different approaches were implemented to the organizational culture research and analysis – starting from mirroring the national cultures to elaboration exclusively devoted to organization. In the world, merits for research on the issue of organizational culture were made by such scholars as, e.g., Schein (1985; 1990), Peters and Waterman (1982), Hofstede (2005), Deal and Kennedy (1982), Cameron and Quinn (1999).

For the purpose of this research the Cameron and Quinn framework was chosen because of (1) its origin – elaborated cultural features on the basis of empirical research by extracting them from effective organization. Organizational culture has an impact on, among others: employee engagement, knowledge sharing habits, ways of maintaining contacts with stakeholders or “rewarding” innovative attitudes.

Additionally (2) – Chun Wei Choo (2013) reasoning, persuading this model as reflecting and suitable framework in case of “information culture” – “the socially shared patterns of behaviours, norms and values that define the significance and use of information in an organization.” Choo (2013) work directly corresponds with the aim of this paper. Moreover Competing Values Framework (Cameron and Quinn, 2011) was transformed by authors into applicable tool – they had elaborated and shared the Organizational Culture Assessment Instrument (OCAI) questionnaire.

This survey (3) is accessible (in a truncated version) for free; therefore it is accessible for managers, easy to use, instruction included – it turns out to be extremely useful for determining the basic characteristics of organizational culture by all members of the organization, it also helps not only with diagnosis of current organizational culture but it guides for culture change as well. In broader, remote communication context of it would be easier for managers and researchers to access and apply tool/ method of measuring the culture type presented here (Cameron and Quinn, 1999):

- The *clan culture*, (flexible, internal) represents shared assumption that effectiveness of organization is produce by committed and satisfied employees. Norms and behaviours thus emphasize open communication, collaboration, and participation. The organization is internally focused on employees, creating a friendly environment that is flexible and empowering.
- The *adhocracy culture*, (flexible, external) represents the shared assumption is that effectiveness is achieved by innovation and new ideas created by new

markets, customers, and opportunities. Norms and behaviours appreciate creativity, risk-taking, and entrepreneurship. The organization is externally focused on its environment and encourages agility and individual discretion.

- The *market culture*, (control, external) represents the shared assumption that organizational effectiveness drivers are striving for goals and market success. Norms and behaviours accentuate focusing on results, attaining or exceeding goals, and productivity. The organization is externally focused on customers and the market, and trace stability that supports goal achievement.
- The *hierarchy culture*, (control, internal) represents the shared assumption that effectiveness is obtained by increase of efficiency and consistency by formalized structures and processes. Norms and behaviours emphasize control, reliability, and the following of rules or procedures. The organization is internally focused on its operations, seeking a high degree of integration and predictability.

3. Methodology and Data

In this study two stages of methodology were applied with the literature review as the first one. In preliminary phase there was strong conviction of necessity to split the literature into two time ranges, before 2019 and from pandemic 2019-2021. Unfortunately, the only one paper found fulfilling key words and published in 2021 was the metanalysis conducted on the basis of papers from 2010-2019.

The systematic literature review was conducted between October and November 2021. Preliminary research criteria were selected on the basis of research hypothesis, the key words had been selected, communication satisfaction, organization culture and virtual/remote/on-line/telework. The database used for the review were Web of Science and Scopus, no time limit for articles was set. At first 18 articles were selected, but when the design of the research took place new 7 more were found before the survey started, and 3 when research was being carried out.

But only those articles with all key words present were included to further procedure. The following criteria for excluding articles were established, papers out of the discipline of management (e.g., medical one) and issues of collective work in which numerous articles are presented, and the content of which contains the searched words, but they are in different chapters, the one chapter did not contain a complete key words list at the same time – so finally we have end up with 11 papers (the earliest 2004 and the latest 2021).

The papers recognized at the closest to the research gap are on communication and culture together but apart from remote communication perspective the factor that as it is expected changes the communication process together with satisfaction level of it (Shachaf, 2008; Hung, Shin-Yuan, Tsan-Chingc, Yen, Huang, and Chen, 2012), both with concern to national not organizational culture. Also Usman (2019) focused on organizational culture, organizational communication and supervisor support on

the job satisfaction of the employees working in the IT based distance learning institutions. There were also two papers identified on communication in virtual/remote conditions (Akkirman and Harris, 2004) and culture of virtual/remote groups (Zakaria, Amelinck, and Wilemon, 2004).

The last, the third group were papers where either one or two factors of our interest was taken into account along with those outside the circle of interest such as trust (Jarvenpaa and Leidner, 1999), organizational support for employees' (Chen and Corritore, 2005), personality differences (Sutanto, Phang, Tan, and Lu, 2011), knowledge sharing (Allen, Golden, Shockley, and Kristen 2015), influence of organizational emotional cultures of joy, companionate love, fear, and sadness on the quality of employee–organization relations (Men and Robinson, 2018) leadership (Terkamo-Moisio, Karki, Kangasniemi, Lammintakanen, and Häggman-Laitila, 2021). Nevertheless, Stein (2006) confirmed a strong correlation between the quality of internal communication and building an organizational culture.

A review of the literature indicated the importance of studying the relationship between organizational culture and communication. Since no scientific considerations were found on the study of this relationship in the conditions of remote and hybrid work, the research question posed by authors may be considered valid and important.

To find an answer for the main research question more detailed research questions were formed on the basis of the problems described in the background part:

RQ1: Is there a difference in the perception of communication satisfaction in remote and hybrid work during and after the pandemic by employees of organizations of different types of culture?

RQ2: Does organizational culture affect communication satisfaction ratings in the same way across all dimensions assessed?

For the second step the data collection was require by the means of a quantitative research. For the purpose of the study the two verified, reliable questionnaires were adopted. First one assessing the company culture OCAI (Organizational Culture Assessment Instrument developed by Cameron and Quinn 1999) and the second one assessing the communication CSQ (Communication Satisfaction Questionnaire developed by Downs and Hazen 1977). Both described above.

The basic eight dimensions of communication were under investigation using 7-points Likert scale from 'very dissatisfied' to 'very satisfied' with the neutral value in the middle. In order to assess the impact of organizational culture on satisfaction with internal communications, employees of not one company, but multiple companies were selected as respondents to the survey. This allowed for a broader view of the topic under study. This is the reason why the OCAI questionnaire was

applied to determine the companies culture with only the first part describing the current stage was applied.

The process of collecting the data was outsourced to the professional Market Research agency. The questionnaires were integrated into one electronic form and the data were collected via the CATI method. The respondents were employees hired in Poland. The filter question allowing participation in the survey was about the respondent's online work. The study was held on the 1st quarter of the 2022. Total of 700 complete records of data were collected at that step.

Table 1 shows the structure of the study group. Female respondents represent 49% and male 51%, most respondents (87.27%) had full-time working status without additional obligations (like e.g., study) and work on parental leave or post-retirement working. Most of the respondents had extensive professional experience in remote work for one employer. It exceeded a year for about 42.94% of respondents, half a year for 32.71%. 2.11% of respondents were working during parental leave, for 1.29% those who work, but were on pension.

Table 1. *The structure of the surveyed respondents*

	gender	status	Remote work experience in the current job
	<i>female</i>	<i>Working</i>	<i>Up to 6 months</i>
%	49	87.27	24.36
records	345	604	180
	<i>male</i>	<i>Working & studying</i>	<i>6-12 months</i>
%	51	9.33	32.71
records	355	70	226
		<i>Working on parental leave</i>	<i>More than 12 months</i>
%		2.11	42.94
records		17	294
		<i>Post-retirement working</i>	
%		1.29	
records		9	

Source: *Own compilation.*

4. Research Results

To find an answer the research question 1 (RQ1), first the calculation to assign the company culture to each record was carried out according to the OCAI method. The distribution of variable culture was assessed applying Kolmogorov-Smirnov test indicating that the distribution of the created construct deviated from the normal distribution (the significance level was less than alpha 0,05 (Table 2)).

Table 2. *The results of Test of normality*

Tests of normality						
	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Significance level	Statistic	df	Significance level
Culture	,272	700	<,001	,784	700	<,001

a. Lilliefors Significance Correction

Source: *Own compilation.*

Data analysis of the first part of the survey using the OCAI questionnaire indicated that, the biggest number of respondents (42%) rated the organization they work in a way that it was classified as Clan (42.43%), the lowest (12%) as Adhocracy. Table 3 shows the detailed results.

Table 3. *The structure of the culture assignment*

Culture type	%
A Clan	42,43
B Adhocracy	12,00
C Market	19,00
D Hierarchy	26,57

Source: *Own compilation.*

In the next step the analysis of communication satisfaction was performed. The (CSQ) instrument is divided into eight dimensions described above. To determine the degree of satisfaction, mean value and basic statistics were calculated for each dimension creating eight composite scores.

A Cronbach's alpha test was then conducted for the variables created, showing a very high level of consistency between scale items (0.958). This confirmed the validation of the CSQ questionnaire and former researchers results. The descriptive statistics (Table 4) shows the mean values of 8 dimensions vary from 4.83 to 5.04. That shows that respondents expressed more satisfaction than dissatisfaction from the communication while remote work. For eight constructs, similar standard deviation values were observed (ranging from 0.967 to 1.104). The highest satisfaction was observed for the Co-worker communication, the lowest for Corporate Information dimension.

To check the reliability of the composite variables the Cronbach Alfa test was performed showing that the items are consistent (0.958) for all eight variables representing dimensions. The distribution of variables and transformed variables (logit transformation) was assessed applying Kolmogorov-Smirnov. In each case, the significance level was less than alpha 0.05, distribution of the variables of each population deviated from the normal distribution.

Table 4. The descriptive statistics and test of normality (Kolmogorov-Smirnov) for CSQ dimensions

CSQ Dimension/Variable				Kolmogorov-Smirnov with Lilliefors significance corrections		
	Sum	Mean	Stand. dev.	Statistics	df	Sig.
1.Co-Worker Communication (horizontal communication)/CW	3524,60	5,04	0,979	0,094	700	<,001
2. Supervisory Communication/SC	3494,00	5,00	1,084	0,092	700	<,001
3. Media Quality/MQ	3488,60	4,99	0,967	0,079	700	<,001
4. Corporate Information/CI,	3379,00	4,83	1,032	0,078	700	<,001
5.Organizational Integration/OI	3517,60	5,03	1,044	0,098	700	<,001
6.Communication Climate/CC	3434,80	4,90	1,057	0,095	700	<,001
7.Personal Feedback/PF	3405,20	4,86	1,104	0,087	700	<,001
8.Subordinate Communication/CS	3448,60	4,92	0,974	,0066	700	<,001

Source: Own compilation.

In the research process next step examined the statistical relationship between the culture variable and variables representing the dimensions of communication satisfaction ratings. The statistically significant difference in all communications dimensions across four culture types was confirmed by Kruskal- Wallis test (Table 5) and thus answered the first research question positively.

Table 5. Culture and communication dimensions of communication relationship – the results of Kruskal–Wallis test

	CW. Mean	SC. Mean	MQ. Mean	CI. Mean	OI. Mean	CC. Mean	PF. Mean	CS. Mean
H Kruskal -Wallis	17.543	27.300	17,583	21,223	16,202	30,029	31.484	12.382
df	3	3	3	3	3	3	3	3
Sig.	<0,001	<0,001	<0,001	<0,001	<0,001	<0,001	<0,001	0,006

Note: Grouping variable: culture

Source: Own compilation.

To find an answer for RQ2 more detailed analysis was performed. Table 6 and Figure 1 present detailed results. Both of them show variation from satisfaction in the dimensions of communication between the groups employees assessing different organizational culture. The highest satisfaction scores were reported by employees assessing their organization culture as Clan, slightly smaller was reported by those assessing the culture as Adhocracy, next Hierarchy and the lowest satisfaction was shown by those who rated the organization culture as Market.

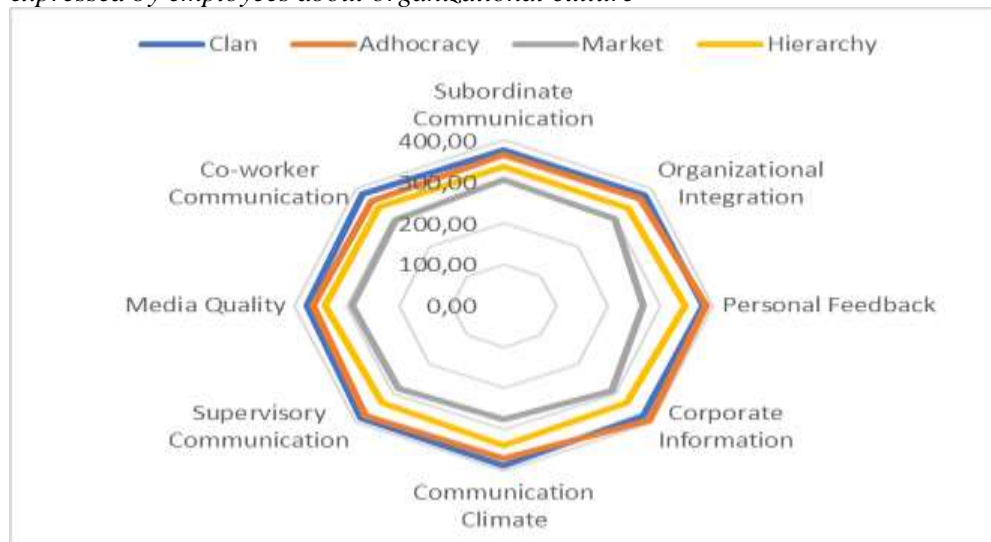
Table 6. The Culture and communication dimensions of communication relationship- the results of Kruskal–Wallis test

Culture/communication dimension	Clan	Adhocracy	Market	Hierarchy
1.Co-worker Communication	381	358,03	294,55	339,11
2.Supervisory Communication	386	375,86	282,92	330,53
3.Media Quality	377	365,02	290,91	343,47
4.Corporate Information	376	393,75	292,68	331,43
5.Organizational Integration	379	366,98	298,96	334,76
6.Communication Climate	387	368,96	274,48	338,14
7.Personal Feedback	380	386,1	267,39	347,03
8.Subordinate Communication	376	363,79	305,68	336,59

Note: Numbers in bold font indicates highest assessed communication dimension for the culture.

Source: Own compilation.

Figure 1. Satisfaction with communication dimensions according to opinions expressed by employees about organizational culture



Source: Own compilation.

Employees rating their organization culture as Clan are more satisfied than others. In the six dimensions (excluding Corporate Information and Personal Feedback) those respondents showed the highest satisfaction score. They showed the highest satisfaction score in the Communication Climate dimension and the lowest in Subordinate Communication. The least satisfied in all eight dimensions were respondents who rated their organization's culture as market.

They reported the highest satisfaction score for Subordinate Communication, but still the score was less than reported by employees represent other organization culture. Employees rating their organization culture as Adhocracy is the second group reporting high satisfaction with communication and they showed the highest satisfaction score in the Corporate Information dimension.

To investigate between which organizational cultures these differences can be observed for each culture dimension, a post hoc analysis was conducted using pairwise multiple comparison analysis. The results are shown in Table 7.

Table 7. Pairwise comparison of organization culture for communication dimensions

Sample 1-Sample 2	Tests Statistics	Standard Error	Std. Test Statistics	Sig.	Adj.Sig. ^a
1.Co-worker Communication					
Market -Hierarchy	-44,560	22,901	-1,946	0,052	0,310
Market -Adhocracy	63,477	28,107	2,258	0,024	0,144
Market -Clan	86,003	21,041	4,087	0,000	0,000
Hierarchy-Adhocracy	18,917	26,511	0,714	0,476	1,000
Hierarchy-Clan	41,443	18,857	2,198	0,028	0,168
Adhocracy-Clan	22,526	24,922	0,904	0,366	1,000
2.Supervisory Communication					
Market -Hierarchy	-47,607	22,916	-2,077	0,038	0,227
Market -Adhocracy	92,932	28,125	3,304	0,001	0,006
Market -Clan	103,169	21,055	4,900	0,000	0,000
Hierarchy-Adhocracy	45,325	26,529	1,709	0,088	0,525
Hierarchy-Clan	55,562	18,870	2,944	0,003	0,019
Adhocracy-Clan	10,237	24,939	0,410	0,681	1,000
3.Media Quality					
Market -Hierarchy	-52,552	22,905	-2,294	0,022	0,131
Market -Adhocracy	74,104	28,112	2,636	0,008	0,050
Market -Clan	86,570	21,045	4,114	0,000	0,000
Hierarchy-Adhocracy	21,553	26,516	0,813	0,416	1,000
Hierarchy-Clan	34,018	18,861	1,804	0,071	0,428
Adhocracy-Clan	12,46	24,927	0,500	0,617	1,000
4.Corporate Information					
Market -Hierarchy	-38,749	22,912	-1,691	0,091	0,545
Market -Clan	83,415	21,051	3,963	0,000	0,000
Market -Adhocracy	101,066	28,119	3,594	0,000	0,002
Hierarchy-Clan	44,667	18,866	2,368	0,018	0,107
Hierarchy-Adhocracy	62,317	26,523	2,350	0,019	0,113
Clan-Adhocracy	-17,651	24,934	-0,708	0,479	1,000
5.Organizational Integration					
Market -Hierarchy	-79,644	22,920	-3,475	0,001	0,003
Market -Clan	112,429	21,059	5,339	0,000	0,000
Market -Adhocracy	118,704	28,130	4,220	0,000	0,000

Hierarchy-Clan	32,785	18,873	1,737	0,082	0,494
Hierarchy-Adhocracy	39,060	26,533	1,472	0,141	0,846
Clan-Adhocracy	-6,275	24,943	-0,252	0,801	1,000
6.Communication Climate					
Market -Hierarchy	-63,652	22,913	-2,778	0,005	0,033
Market -Adhocracy	94,473	28,121	3,359	0,001	0,005
Market -Clan	112,577	21,052	5,347	0,000	0,000
Hierarchy-Adhocracy	30,821	26,525	1,162	0,245	1,000
Hierarchy-Clan	48,925	18,867	2,593	0,010	0,057
Adhocracy-Clan	18,104	24,935	0,726	0,468	1,000
7.Personal Feedback					
Market -Hierarchy	-79,644	22,920	-3,475	0,001	0,003
Market -Clan	112,429	21,059	5,339	0,000	0,000
Market -Adhocracy	118,704	28,130	4,220	0,000	0,000
Hierarchy-Clan	32,785	18,873	1,737	0,082	0,494
Hierarchy-Adhocracy	39,060	26,533	1,472	0,141	0,846
Clan-Adhocracy	-6,275	24,943	-0,252	0,801	1,000
8.Subordinate Communication					
Market -Hierarchy	-30,911	22,909	-1,349	0,177	1,000
Market -Adhocracy	58,111	28,117	2,067	0,039	0,233
Market -Clan	69,841	21,049	3,318	0,001	0,005
Hierarchy-Adhocracy	27,200	26,521	1,026	0,305	1,000
Hierarchy-Clan	38,930	18,864	2,064	0,039	0,234
Adhocracy-Clan	11,730	24,931	0,471	0,638	1,000

Note: Bold font indicates values less than $\alpha = 0.05$.

a – Bonferroni correction.

Source: Own compilation.

The analysis shows that for the dimensions of Communication with Co-workers and Media Quality, only the relationship is statistically significant in organizations with a culture rated as Clan relative to the culture of an organization rated as Market. The similar result was noticed for Communication of Subordinates dimension. For the Supervisor Communication dimension, communication satisfaction is statistically significant for three organization culture relationships: Market-Adhocracy, Market-Clan and Hierarchy-Clan. For the Corporate Information dimension, communication satisfaction is statistically significant for two organizational culture relations: Market-Adhocracy, Market-Clan.

In case of three communication dimensions: Organizational Integration, Communication Climate and Personal Feedback, communication satisfaction is statistically significant for three organizational culture relationships Market-Hierarchy, Market-Clan, Market-Adhocracy.

In other cases, the null hypothesis cannot be rejected, as the differences between the analysed variables are not statistically significant.

5. Conclusion

This study expands the understanding of the impact of organizational culture on the important management aspect of communication. The results presented show differences in communication satisfaction depending on perceptions of organizational culture in remote and hybrid work. There is a number of other studies presenting results on the challenges, problems and opportunities of working remotely from home (Al-Habaibeh *et al.*, 2021), they mainly focus on several aspects, including technical and social issues.

The present study focused on communication satisfaction during and after the pandemic, when remote work posed a huge challenge for organizations. The change in communication-not in-person, at a distance, through technology-assumes that satisfaction levels have changed, but it was impossible to measure this particular change because we did not anticipate the pandemic and did not determine satisfaction levels before the pandemic to compare. We could only see the satisfaction level at the time and compare it to the organizational culture. From the point of view of the study, it was important to determine the culture in general, rather than studying one company, since the pandemic affected all organizations.

The authors of the study are aware that the change in communication satisfaction rating is variable over time and should be studied from other points of view as well, no less the results of this study give insight into this problem.

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