

# Analysis of internal communication in public companies in Croatia

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## Abstract

*The paper analyses the effectiveness of internal communication in public companies in Croatia and its impact on employee satisfaction after market changes. Research on internal communication and its effects on employee satisfaction was conducted with a sample of 1,342 respondents from three large public companies (these companies employ more than 23% of the total workforce belonging to large public companies in Croatia). The results obtained from a hierarchical regression analysis indicate that satisfaction with internal communication (44.3%) is more significantly related to overall job satisfaction than sociodemographic characteristics (total length of service in the company, employment type, managerial position in the company, sex, age group and highest level of education) (5.2%). In conclusion, when employees in public companies in Croatia receive clear information about their organization's goals, expectations, results, and progress, they feel informed and engaged, which positively influences their job satisfaction.*

*Keywords: internal communication, employee satisfaction, public companies, feedback*

## 1 INTRODUCTION

Ensuring basic labour rights in public companies does not guarantee employee satisfaction and motivation (Kimeli Cheruiyot and Chemnetich Maru, 2014). There is an increasing need for employees in public companies to be involved in communication through a two-way exchange of information. In addition, a lack of efficient and timely communication often results in missed business opportunities, which causes public companies to lag behind private competitors, leading to an increase in employee dissatisfaction. Problems in internal communication and lack of transparency directly affect employees' trust in management, reducing their motivation to work, which is reflected in user satisfaction and overall business performance. Internal communication plays a key role in improving organizational efficiency and is reflected in external communication. Specifically, the quality of public companies is continuously under scrutiny from the public, and the best ambassadors for public companies should be their satisfied employees. It is therefore necessary to build quality relationships within an organization in order to influence a positive working atmosphere. For the above reasons, determining the current state of public companies is necessary to define guidelines for adapting organizational culture so that employees, through internal communication, develop beliefs that support the planned activities and strategies of public companies.

To determine the connection between internal communication and employee satisfaction in public companies, a survey of employee satisfaction in three large public companies, Croatian Post, Croatian Lottery, and the HŽ Passenger Transport Company, was conducted. The selected public companies were included in this study because they have more than 1,000 employees territorially dispersed throughout Croatia, allowing for a representative sample and ensuring that the research results are not predominantly tied to a particular region. Additionally, the

selection factors were the diversity of the primary activities or basic functions of the researched public companies, in addition to a need to restructure and adapt from a monopolistic position to classic market competition. Croatian Post operates entirely in an open market in all major areas, including postal and financial services, as there are alternative services from competitors even for universal postal services. Croatian Lottery operates partially in an open market, particularly with respect to betting, casino and slot machine games. However, even in the protected area of lottery games, there is illegal competition, which mainly operates using online portals. Unlike the two previously mentioned public companies, HŽ Passenger Transport Company still holds a monopoly, but only in its core business of passenger transportation via domestic rail transport.

In terms of large public companies with more than 1,000 employees, there are in all 53,648 employees, 23.16% of whom work in the three participating public companies (Lider, 2023). This research used a sample of 1,342 respondents, representing more than 10% of the employees of the observed public companies. This research was conducted in the last quarter of 2022 using a questionnaire designed to assess satisfaction with internal communication in the workplace. The responses were analysed collectively for all respondents across all three public companies that participated in the study.

### 1.1 INTERNAL COMMUNICATION

Effective internal communication is especially valuable in public companies because it fosters quality relationships within the organization, leading to a better work environment for conducting business processes. This, in turn, results in more successful operations and enhanced positive perception of the public company. Communication with employees influences the implementation of changes, efficiency, and employee satisfaction and trust, ultimately being reflected in task execution and the quality of services provided by the public company.

Internal public relations and internal communication are becoming increasingly important components of public relations systems within companies in which the employees of a specific company represent its internal public (Skoko, 2006: 259). Internal communication is the deliberate use of various communication activities to consciously influence the knowledge, attitudes, and behaviour of current employees (Yeomans, 2006: 334), with two-way communication considered a key tool for successful organizational management and achieving objectives (Ćorić, 2019: 119). Therefore, in all definitions of internal communication, there is joint emphasis on the role of management and leadership, indicating that “internal communication is related to the management function in all contexts” (Tomić, 2016: 794). In other words, internal communication is considered a valuable tool for the management of a company and its employees (Skoko, 2006: 260).

Therefore, we can conclude that internal communication is a communication process within a company which occurs among its employees on various levels. It can

encompass the delivery of news and information from management to the employees and vice versa. Furthermore, it also includes communication between teams and employees, i.e., all forms of formal and informal communication in the company.

Unfortunately, many public companies only focus on the benefits and advantages of working at a company. Even though these factors are important, they are not crucial to employee satisfaction. Specifically, “when an organization faces a crisis, the most important currency is no longer financial, but informational” (Kanajet and Jakopović, 2019: 58). In order to achieve a positive workplace experience, it is necessary to ensure honest, open, two-way communication between management and employees, as well as genuine care and understanding of employees’ problems from the side of management.

Effective internal communication affects employee satisfaction, which is then reflected in their productivity and, ultimately, in the company’s success. It is correlated with employees’ motivation and job satisfaction, resulting in greater work efficiency and better performance of entire organizations (Bolfek, Milković and Lukavac, 2017; Brnad, Stilin and Tomljenović, 2016).

However, internal communication must be reciprocal. This means that the organization needs to listen to its employees and offer them an opportunity to express their opinions and concerns. When employees feel that their voices are heard, trust and loyalty are built, which also contributes to their job satisfaction (Ruck, Welch and Menara, 2017). Managers must be familiar with the events at the organization, while the employees need to have a thorough understanding of their responsibilities and manners of working. In addition, managers looking for feedback should be ready to accept criticism in order to foster a productive communication climate (Rouse and Rouse, 2005: 65).

## 1.2 PUBLIC COMPANIES

Public companies are companies or organizations where the state owns a majority share or controls the management. Depending on the political and economic environment, the state may have different levels of participation in the ownership and management of enterprises (Kimeli Cheruiyot and Chemngetich Maru, 2014). In some cases, the state may have full control, while in others, it may have a minority stake or control only over key decisions, such as product and service price restrictions on the market. The reasons for state ownership can vary, including the desire to preserve strategic resources, provide key services to citizens, or control certain markets. The negative aspects of state ownership are potential problems such as political influence, bureaucracy, and lack of innovation or efficiency.

For EU member states, there is no unified overall approach to public companies, i.e., regarding state ownership. This diversity is a result of the different strategies and priorities adopted by each individual member state toward maintaining a balance between market competition and state intervention in the economy. Thus, in

the economies of EU member states characterized by open access to the market and minimal state intervention, such as the Netherlands, state ownership is focused on only a few key economic sectors. On the other hand, countries with high levels of social sensitivity, such as the Nordic countries of Finland and Sweden, and most post-transition countries, have a larger share of state ownership in a diverse range of economic sectors. In other EU member states, the state plays a significant role, but this role is limited to selected economic sectors (Bajo and Zuber, 2017: 17). In Europe and around the world, the term public service encompasses not only social activities but also economic or commercial activities, including utilities, telecommunications, the energy sector, postal services, railways, and roads, which are referred to as “public enterprises” in Croatia (Klarić and Nikolić, 2011: 91). At the same time, Klarić and Nikolić (2011: 91) divide public services, depending on the realization of commercial profit – “into commercial or economic and non-commercial or non-economic.” The former were commonly set up and operated as state-owned enterprises, providing commercial services under defined terms as state monopolies, whereas the latter were established and operated as public institutions, offering services devoid of commercial attributes in their functioning. Bajo and Zuber (2017) classified public companies into financial and non-financial, which can be organized as joint-stock companies or limited liability companies, while Kesner-Škreb (2005) states that the public sector includes general government entities, non-financial public companies, and public financial institutions. A joint-stock company is usually larger, has publicly available shares and greater access to capital, while a limited liability company is often smaller, with more flexible management and more limited access to capital. Both types of legal entities are used to organize business and allow for the limited liability of owners (Jakšić and Petrović, 2016).

In some cases, state-owned enterprises may be established to support economic development or achieve certain social goals. “State-owned enterprises, emerging from a combination of political objectives and economic necessities, have historically held significant sway in the political and economic landscapes of diverse nations. Advocates of state ownership in contemporary economic theory present various arguments to justify their existence, encompassing not only political and ideological rationales but also compelling economic justifications” (Crnković, Požega and Karačić, 2011: 280). However, the problem arises when non-financial public companies provide services on a non-commercial basis, often offering lower prices that are insufficient to cover the real costs. The financing of business conducted in such a way can be realized via two strategies: by redistributing subsidies among different groups of consumers or by covering the losses of public companies from the budget (Kesner-Škreb, 2005: 93). Precisely to limit and, in a certain way, regulate such interventions by member states, Article 86 of the EU Agreement stipulates that public companies and those with special or exclusive rights in member states are exempt from measures limiting market competition, with a specified exception for companies providing services of general economic interest, particularly monopolies (Klarić and Nikolić, 2011: 94).

Two trends have been observed in US public companies: a decrease in the number of public companies and an increase in the average age of public companies compared to private companies. There are fewer public companies because of the consolidation of existing public companies and a decrease in public interest for establishing new public companies. This suggests that the average age of public companies tends to increase over time. The above leads to changes in the dynamics of the market, which makes it more challenging to achieve success in the business of public companies (Kahle and Stulz, 2017: 70). These trends alter market dynamics, creating challenges such as reduced innovation, increased competition among established players, and higher barriers to entry, making it more difficult for public companies to achieve business success.

Reasons for state ownership can include a desire to preserve strategic resources, provide essential services to citizens, or control certain markets. In some cases, state enterprises are established to support economic development or achieve social goals. However, a problem arises when public enterprises lose, partially or entirely, their monopolistic status and must compete in the market with private competition. Adapting public enterprises involves changes not only in business processes but also in external communication with the outside environment and internal communication with the internal environment, which primarily comprises employees. These changes certainly affect the satisfaction of employees working in public enterprises.

## 2 METHODOLOGY

### 2.1 THE PURPOSE AND OBJECTIVES OF THE RESEARCH

The main purpose and objectives of this research were to investigate the influence of internal communication on the general satisfaction of employees in public companies in Croatia and to determine the significance of the role of the individual dimensions analysed in this research. The results were then used to establish an optimal model for adequate internal communication in public companies. Beginning with the research objectives, one main and three auxiliary hypotheses were formulated:

H1: Internal communication has a more significant impact on job satisfaction in public companies' employees than sociodemographic characteristics.

H2: There is a positive correlation between the satisfaction with corporate communication and the communication climate.

H3: There is a positive correlation between satisfaction with feedback and communication with superiors.

H4: There is a difference in satisfaction with horizontal communication according to employee age and length of service in a public company.

## 2.2 SAMPLE DESCRIPTION

This empirical research was conducted using a questionnaire on a sample of three representative public companies with more than 1,000 employees, in which the general satisfaction of employees was examined with an emphasis on internal communication, and the research results were also analysed using a comparative method (see appendix).

Although all three of the public companies included in this research are 100% owned by the Republic of Croatia and operate across the entire country, employing over 1,000 employees, they are specific in their market position and primary business activities. The volunteer sample for this study consisted of 1,342 employees (10.8% of the total employees in all three representative public companies). The data were collected using an online questionnaire over a two-month period, from October 27, 2022, to December 29, 2022. Closed-ended questions were used due to their greater clarity, ease of processing, and reduced risk of errors. In the sample, slightly more individuals were female (58.2%), with respondents between the ages of 45 and 54 comprising the dominant group (40.9%). Around half of the respondents (50.1%) had secondary education. The largest number of respondents who participated in the research were employed with indefinite contracts (95.4%). Regarding their length of service in the company, around two-thirds of the respondents had more than 10 years of work experience (70.4%), and almost one-third (29.9%) held some form of managerial position within the company where they are currently employed (manager, team leader, supervisor, director). The sample was evaluated to determine whether the distribution of respondents across the mentioned sociodemographic characteristics differed from that of employees in public companies. For this purpose, additional data on the sociodemographic characteristics of all employees (N=12,421) employed in the surveyed public companies, as of 31 December 2022, were collected. Chi-squared tests revealed the existence of differences in distribution between the respondents in the sample and the employees in these public companies concerning all the sociodemographic characteristics considered in the study.

The obtained differences between individual categories were statistically significant; however, they were expected considering the response rate to the survey and given that this research used a convenient sample of respondents. Around 10.80% (N=1,342) of the total of 12,421 people employed in these public companies participated in this study. The required sample size was determined (*a priori*) using the statistical tool G\*Power 3 (Faul et al., 2007). Based on this analysis, it was determined that a minimum sample size of N=788 was required for an expected small effect size ( $d=0.2$ ) and a minimum statistical power of 0.8. The abovementioned minimum sample size was exceeded in this research.

## 2.3 INSTRUMENT AND PROCEDURES

The research was conducted using a questionnaire designed to assess satisfaction with internal communication in the workplace. This questionnaire was created for the purpose of scientific research and was authored by Tkalac Verčič, Pološki Vokić and Sinčić Ćorić in 2007. It measures eight dimensions of satisfaction with internal communication.

Besides the internal communication satisfaction, the value the employees place on the aforementioned aspects of internal communication was also examined. Using a Likert scale ranging from 1 – not important at all to 5 – very important, the participants assessed how personally important they considered each aspect of internal communication.

Overall job satisfaction was considered a one-dimensional construct and was measured using the question, “Please rate how satisfied you are with your job in general”, on a Likert scale, where possible response options range from 1 – extremely dissatisfied to 5 – extremely satisfied.

Furthermore, for the purposes of this study, data were collected on the participants’ total length of employment in their current company, employment type (temporary/permanent), whether the participants held a managerial position in the company (manager, team leader, supervisor, director), and their basic sociodemographic characteristics, including sex, age, and highest level of education.

The first step of the regression analysis used the following employee features as analysis predictors: the length of service at the company, the employment type, work in a managerial position, sex, age, and the highest education level acquired. The second step of the regression analysis included aspects of internal communication satisfaction as predictors.

General job satisfaction was used as a criterion. To produce a highly accurate satisfaction forecast based on the used predictors, it is necessary for the predictors to have as little correlation with each other as possible and for each predictor to have a strong correlation with the criterion variable. The correlation between specific variables was determined based on the Pearson correlation coefficient ( $r$ ).

Statistical analyses were conducted using the SPSS v20 statistics tool along with the IBM AMOS v20.0 tool. Descriptive statistics were used for description of the variables used in the research. The reliability of a multidimensional questionnaire of internal communication was determined on the basis of the coefficient of internal consistency, Cronbach’s alpha<sup>1</sup>. T-tests<sup>2</sup> were used to evaluate the arithmetic mean between two groups of employees, while analysis of variance (ANOVA)<sup>3</sup> was used

<sup>1</sup> Cronbach’s alpha is a measure of internal consistency, assessing how closely related a set of items are as a group in a survey or test.

<sup>2</sup> T-tests are statistical tests used to compare the means of two groups to determine if they are significantly different from each other.

<sup>3</sup> ANOVA (Analysis of Variance) is a statistical method used to compare the means of three or more groups to see if at least one group mean is significantly different from the others.



to measure the differences between more than two groups of employees. The factor structure of the internal communication satisfaction questionnaire was verified through confirmatory factor analysis<sup>4</sup>. The correlation between different measures was determined according to the Pearson correlation coefficient<sup>5</sup>, and hierarchical multiple regression analysis<sup>6</sup> was used to examine the relationship between a set of predictor variables and the criterion. Data collection was conducted using a survey questionnaire, which was delivered to the participants via email or digital communication applications, depending on the possibility of reaching the maximum number of employees. In this case, the form and content of the questionnaire were the same regardless of the delivery channel, and the questionnaire was created using the Google Forms tool. Online survey completion ensures improved legibility and faster data processing, while the applied survey measurement instrument allows for the simultaneous examination of multiple anonymous respondents.

The factor structure of the questionnaire was examined using confirmatory factor analysis (CFA), which represents a robust instrument for assessing *construct validity* (Hair et al., 2006). Confirmatory analysis was conducted using the software tool IBM AMOS v20.0. A measurement model was specified using eight aspects of internal communication as exogenous variables and 32 questionnaire items as endogenous variables, with four items assigned to each latent variable (an aspect of internal communication). For the estimation of parameters, the Maximum Likelihood (ML) method was used. To assess how well the statistical model fit the observed data during structural equation modelling (SEM), the following four fit indices were used:  $\chi^2/\text{df}$ , CFI, the TLI, and the RMSEA. Based on data collected from the sample of 1,342 respondents, it was shown that the specified measurement model with eight latent factors (eight aspects of internal communication) fit the data acceptably ( $\chi^2 (434) = 2540.3$ ;  $p < 0.05$ ;  $\chi^2/\text{df}^7 = 5.85$ ;  $\text{CFI}^8 = 0.95$ ;  $\text{TLI}^9 = 0.941$ ;  $\text{RMSEA}^{10} = 0.06$ ). According to the recommendations of Hu and Bentler (1999), CFI and ILI values equal to or higher than 0.95 and RMSEA index values equal to or lower than 0.06 were considered an acceptable fit. The average saturations of individual items with the latent variable were 0.85, and all were statistically significant at the level of  $p < 0.01$  which, according to the recommendations of Hair et al. (2006), is considered satisfactory.

<sup>4</sup> Confirmatory Factor Analysis (CFA) is a statistical technique used to test whether a set of observed variables represents the number of underlying latent constructs as expected.

<sup>5</sup> The Pearson correlation coefficient is a measure of the linear relationship between two continuous variables, ranging from -1 to 1.

<sup>6</sup> Hierarchical multiple regression analysis is a statistical method in which variables are entered into the regression equation in steps to understand the contribution of each set of variables after accounting for the others.

<sup>7</sup>  $\chi^2/\text{df}$  (Chi-square/degrees of freedom): this index is the ratio of the chi-square statistic to its degrees of freedom, providing a measure of model fit in which values close to 1 indicate a good fit; this index can be sensitive to sample size.

<sup>8</sup> CFI (Comparative Fit Index): the CFI compares the fit of a target model to an independent model (one with no relationships between variables) and ranges from 0 to 1, with values closer to 1 indicating a better fit.

<sup>9</sup> TLI (Tucker–Lewis Index): the TLI, also known as the Non-Normed Fit Index (NNFI), compares the fit of a specified model to a baseline model, taking model complexity into account, with values closer to 1 indicating a good fit.

<sup>10</sup> RMSEA (Root Mean Square Error of Approximation): the RMSEA measures the discrepancy between the model and the data per degree of freedom, with values less than 0.06 indicating a close fit and values of up to 0.08 representing a reasonable fit.

3 RESULTS

In order to initially assess the average employee satisfaction with various aspects of internal communication, three indicators of mean results were calculated: the arithmetic mean (M), the central value/median (C), and the dominant mode (D). The average employee satisfaction with different aspects of internal communication, as well as overall job satisfaction, expressed as the arithmetic mean (M), was above the theoretical average for all aspects, except for the aspect of satisfaction with feedback, which was below the theoretical average of 3 for a Likert scale with a range of results from 1 to 5.

The employees were most satisfied with horizontal communication (M=3.79), followed by communication with superiors (M=3.60), the quality of communication medium (M=3.57), communication in meetings (M=3.25), corporate information (M=3.08), communication climate (M=3.08), informal communication (M=3.01), and feedback (M=2.98). A similar ranking would have been produced if the results had been categorized according to the calculated central value (C). The standard deviation of the results was approximately SD=1, with the maximum possible range of results ranging from 1 to 5 (table 6). The employees rated their overall job satisfaction as M=3.46 with SD=1.04, which also indicated an above-average result (table 1).

**TABLE 1**  
*Descriptive data for eight dimensions of satisfaction with internal communication and general (total) satisfaction with the job*

	M	C	D	SD	Symmetry	Kurtosis
Satisfaction with horizontal communication (with colleagues)	3.79	3.75	4.0	0.82	-0.80	0.99
Satisfaction with communication with superiors	3.60	3.75	5.0	1.08	-0.57	-0.48
Communication medium quality satisfaction	3.57	3.75	4.0	0.92	-0.69	0.47
Meeting communication satisfaction	3.25	3.25	4.0	0.99	-0.38	-0.27
Corporate information satisfaction	3.08	3.00	3.0	1.01	-0.05	-0.54
Communication climate satisfaction	3.08	3.00	3.0	1.06	-0.17	-0.57
Informal communication satisfaction	3.01	3.00	3.0	0.77	-0.05	0.24
Feedback satisfaction	2.98	3.00	3.0	1.06	-0.04	-0.71
General job satisfaction	3.46	4.00	4.0	1.04	-0.69	-0.01

*Note: M – arithmetic mean, C – the central value/median, D – dominant mode, SD – standard deviation.*

*Source: Author.*

The distributions of the obtained results were slightly negatively skewed (tilted to the right) and slightly leptokurtic (flattened) for most dimensions of satisfaction with internal communication. However, based on the calculated measures of skewness and kurtosis, along with the corresponding standard errors of the results, it can be concluded that the obtained distributions of results approximately corresponded to a normal distribution.

According to a correlation analysis conducted as part of the regression analysis, the highest correlations were obtained between satisfaction with feedback and satisfaction with the communication climate ( $r=0.73$ ), between satisfaction with feedback and satisfaction with communication with superiors ( $r=0.70$ ), and between satisfaction with feedback and satisfaction with communication at meetings ( $r=0.70$ ) (table 2).

**TABLE 2**

*Correlation matrix of 8 dimensions of internal communication*

	1	2	3	4	5	6	7	8
1 Feedback satisfaction	—							
2 Satisfaction with communication with superiors	.70*	—						
3 Satisfaction with horizontal communication (with colleagues)	.49*	.48*	—					
4 Informal communication satisfaction	.57*	.50*	.53*	—				
5 Corporate information satisfaction	.68*	.58*	.43*	.48*	—			
6 Communication climate satisfaction	.73*	.63*	.47*	.59*	.66*	—		
7 Communication medium quality satisfaction	.58*	.54*	.48*	.50*	.63*	.61*	—	
8 Meeting communication satisfaction	.70*	.66*	.48*	.56*	.68*	.69*	.67*	—

Note: \* $p<0.05$ ; \*\* $p<0.01$ .

Source: Author.

Below are detailed explanations of the research results for the main hypothesis and each of the three auxiliary hypotheses.

### **H1: Internal communication has a more significant impact on job satisfaction in public companies employees than sociodemographic characteristics**

The focus of the comparative analysis of internal communication in public companies, conducted using a survey questionnaire, was to examine the possibility of predicting job satisfaction based on the characteristics of the respondents and various aspects of internal communication. A two-step hierarchical multiple regression analysis examined the possibility of explaining overall employee job satisfaction.

It was found that the sociodemographic characteristics of employees (total length of service in the company, employment type, managerial position in the company, sex, age group and highest level of education) were weakly correlated with each other, as well as with overall job satisfaction. Different aspects of internal communication, however, were, to a moderate degree, positively and statistically significantly correlated with each other and with overall job satisfaction.

The results of the regression analysis showed that sociodemographic characteristics explained only 5.2% of the variance in overall job satisfaction. The individual aspects of satisfaction with internal communication explained 44.3% of the variance in overall job satisfaction. This finding is in line with other research studies (Borovec and Balgač, 2017). The most important predictor of overall job satisfaction was found to be satisfaction with the communication climate ( $\beta=0.35$ ,  $p<0.01$ ), as well as satisfaction with communication with superiors. The results obtained from the regression analysis indicate that satisfaction with internal communication is, to a high degree, more strongly associated with overall job satisfaction than sociodemographic characteristics (table 3). Considering the aforementioned data, it can be concluded that the main hypothesis, which states that internal communication has a more significant impact on the job satisfaction of public company employees than sociodemographic characteristics, is accepted.

**TABLE 3**  
*Results of the hierarchical regression analysis of general job satisfaction*

Model		B	$\beta$	R	R <sup>2</sup>	$\Delta R^2$
1	(Constant)	3.661				
	Total length of service in the company	-0.111	-0.141**			
	Employment type	-0.178	-0.036			
	Managerial position in the company (manager, team leader, supervisor, director)	-0.374	-0.165**	0.228	0.052	0.052
	Sex	0.140	0.067			
	Age group	0.169	0.152**			
	Highest level of education	0.051	0.048			
2	(Constant)	0.588				
	Total length of service in the company	-0.044	-0.056**			
	Employment type	-0.108	-0.022			
	Managerial position in the company (manager, team leader, supervisor, director)	-0.063	-0.028			
	Sex	0.039	0.018			
	Age group	0.107	0.097**			
	Highest acquired education level	0.055	0.051*			
	Feedback satisfaction	0.046	0.047	0.704	0.495	0.443
	Satisfaction with communication with superiors	0.186	0.195**			
	Satisfaction with horizontal communication (with colleagues)	0.047	0.037			
	Informal communication satisfaction	-0.001	0.000			
	Corporate information satisfaction	0.035	0.034			
	Communication climate satisfaction	0.342	0.351**			
	Communication medium quality satisfaction	0.045	0.040			
	Meeting communication satisfaction	0.099	0.095			

Note: \* $p<0.05$ ; \*\* $p<0.01$ .

Source: Author.

## H2: There is a positive correlation between the satisfaction with corporate information and the communication climate

Although it is not among the top three highest correlations, a positive and relatively high and statistically significant correlation was also obtained between satisfaction with corporate information and communication climate ( $r=0.66$ ) (table 2). Namely, correlations above  $r=0.50$  are considered statistically significant and high. The variables had a linear relationship, and the regression equation to predict satisfaction with the communication climate based on satisfaction with corporate information was  $y = 1.14 + 0.63 \cdot x$ .

For a more detailed insight into the relationship between the issues mentioned above, an analysis was conducted at the level of individual questions (items). The questions concerning satisfaction with corporate information were positively correlated with the questions related to satisfaction with the communication climate, ranging from  $r=0.50$  for the relationship between satisfaction with the way communication in the organization encouraged individuals to achieve organizational goals (Z24) and satisfaction with the information about the work regulations (Z17) to  $r=0.60$  for the relationship between satisfaction with the way communication helps employees identify with the organization (Z22) and satisfaction with information about legal regulations affecting the organization's operations (Z20) (table 4).

**TABLE 4**

*Correlation between corporate information and the communication climate*

	Z17	Z18	Z19	Z20	Z21	Z22	Z23	Z24
Z17 Satisfaction with information about the work regulations	1							
Z18 Satisfaction with information on the turnover, profit, and financial success of the organization	.68**	1						
Z19 Satisfaction with information on developments in the organization	.64**	.76**	1					
Z20 Satisfaction with information on legislative regulations that affect the operational activities of my company	.67**	.74**	.77**	1				
Z21 Satisfaction with the way communication helps me identify myself as a valuable part of the company	.51**	.52**	.60**	.59**	1			
Z21 Satisfaction with the way communication helps me identify with the company	.51**	.52**	.59**	.60**	.91**	1		
Z23 Satisfaction with the degree to which communication in the company promotes organizational values	.52**	.54**	.59**	.59**	.85**	.88**	1	
Z24 Satisfaction with the degree to which communication in the company encourages me to achieve organizational goals	.50**	.53**	.59**	.59**	.83**	.85**	.88**	1

*Note: Questions Z17 to Z20 comprise the satisfaction with corporate information, whereas questions Z21 to Z24 comprise the satisfaction with the communication climate. \* $p < 0.05$ , \*\* $p < 0.01$ ;  $N = 1,342$ .*

*Source: Author.*

The distribution of the participant responses to the question where they assessed satisfaction with corporate information was approximately normal, with an average rating of  $M=3.08$  and a standard deviation of  $SD=1.01$ . A slightly more flattened but still approximately normal distribution of responses was obtained for the question related to satisfaction with the communication climate. The average grade equated to  $M=3.08$  with  $SD=1.06$ . According to the information provided, it can be concluded that the hypothesis regarding the relationship between the satisfaction with corporate information and the communication climate is accepted.

**H3: There is a positive correlation between satisfaction with feedback and communication with superiors**

A positive, relatively high, and statistically significant correlation between satisfaction with feedback and satisfaction with communication with superiors was found ( $r=0.70$ ,  $p<0.01$ ) (table 2). These two variables were in a linear relationship, and the regression equation used to predict employee satisfaction with communication with superiors based on feedback satisfaction was  $y = 0.54 + 0.68 \cdot x$ .

To provide a more detailed depiction of the relationship between these two variables, correlation analysis was conducted at the level of individual items for these two aspects. The questions related to satisfaction with feedback were positively correlated with the questions related to satisfaction with communication with superiors. The correlation ranged from  $r=0.43$  for the relationship between satisfaction with the availability of an immediate superior and satisfaction with information about the extent to which an employee contributes to the company's overall success to  $r=0.69$  for the relationship between satisfaction with the recognition of employee potential by an immediate superior and satisfaction with feedback on how the employee performs their job (table 5).

**TABLE 5**  
*Correlation between feedback satisfaction and satisfaction with communication with superiors*

	Z1	Z2	Z3	Z4	Z5	Z6	Z7	Z8
Z1 Satisfaction with information on the consequences of poor job performance	1							
Z2 Satisfaction with information on the extent to which I contribute to collective success	.65**	1						
Z3 Satisfaction with information on how much my job is valued within the organization	.60**	.77**	1					
Z4 Satisfaction with feedback on my job performance	.63**	.77**	.81**	1				
Z5 Satisfaction with the availability of an immediate superior	.47**	.43**	.46**	.52**	1			
Z6 Satisfaction with the extent to which my superior is familiar with the issues I encounter at work	.52**	.51**	.55**	.59**	.77**	1		

	Z1	Z2	Z3	Z4	Z5	Z6	Z7	Z8
Z7 Satisfaction with the extent to which my superior understands my problems	.53**	.53**	.59**	.62**	.74**	.85**	1	
Z8 Satisfaction with my superior's recognition of my potential	.54**	.61**	.68**	.69**	.66**	.72**	.79**	1

Note: Questions Z1 to Z4 comprise feedback satisfaction, whereas questions Z5 to Z8 comprise satisfaction with communication with superiors. \* $p < 0.05$ ; \*\* $p < 0.01$ ;  $N = 1,342$ .

Source: Author.

The distribution of the participant responses to the question regarding satisfaction with feedback was approximately normal, with an average rating of  $M = 2.98$  and a standard deviation of  $SD = 1.06$ . The distribution of participant responses to the question regarding satisfaction with communication with superiors was slightly negatively skewed, indicating above-average satisfaction among participants regarding communication with their superiors. The average satisfaction was expressed as an arithmetic mean, which was  $M = 3.6$  with  $SD = 1.08$ .

Therefore, employee satisfaction with feedback is most influenced by satisfaction with communication with superiors in the company. In other words, if an employee receives adequate and timely information about themselves and their work within the company, they are likely to be satisfied with communication with their superiors. From the information provided, it can be concluded that the third hypothesis, about the positive relationship between employee satisfaction with feedback and communication with superiors, has been accepted.

#### **H4: There is a difference in the satisfaction with horizontal communication depending on employee age and length of service in the public company**

By analysing all eight components of internal communication, it was established that satisfaction with horizontal communication was the aspect of internal communication with which employees were most satisfied. Specifically, the mean value was 3.79 with a standard deviation of 0.82 (Cronbach's  $\alpha = 0.896$ ).

There was less variation in employee satisfaction with horizontal communication regarding the age and length of service in the company. In this context, employees in the age group of 45 to 54 years were slightly more satisfied with horizontal communication, while younger employees in public companies aged up to 25 years and those in the age group of 25 to 34 years were less satisfied. There was also a variation in satisfaction with horizontal communication according to the length of service in the company, where employees with the shortest length of service (less than 5 years) and those with 20 to 29 years of service were somewhat more satisfied.

However, it is important to emphasize that the mentioned variations were not sufficiently pronounced to establish significant differences among employees. The analysis of variance indicates that the differences in satisfaction with horizontal communication based on age and service length were not statistically significant (ANOVA) (table 6).

**TABLE 6**  
*Satisfaction with horizontal communication considering employee age groups and length of service*

	M	SD	F (4, 1336)	η2
<b>Age</b>				
less than 25 years	3.70	0.82	0.15	0.005
from 25 to 34 years	3.67	1.02		
from 35 to 44 years	3.78	0.87		
from 45 to 54 years	3.85	0.77		
over 55 years	3.75	0.71		
<b>Length of service</b>				
less than 5 years	3.85	0.84	1.49	0.004
from 5 to 9 years	3.73	0.91		
from 10 to 19 years	3.72	0.84		
from 20 to 29 years	3.84	0.81		
over 30 years	3.77	0.71		

*Note:* \* $p<0.05$ ; \*\* $p<0.01$ .  
*Source:* Author.

From this information, it can be concluded that the hypothesis regarding the existence of differences in satisfaction with horizontal communication based on age and length of service among employees in a public company is rejected: employees are equally satisfied with horizontal communication regardless of their age group and/or length of service at a public company.

**4 DISCUSSION**

In recent years, there has been increasing focus on the topic of the impact of internal communication on employee satisfaction and its consequences for organizations. From the review of the available literature, it was observed that research on the topic of the relationship between employee satisfaction and internal communication in public companies is not very prevalent in Croatia compared to the international context, at least according to the number of publications. It is worth noting that previous research has primarily been conducted on private companies (Bolfek, Milković and Lukavac, 2017; Sušanĳ Šulentić, 2014), with fewer studies focusing on public companies (Ćorić and Musa, 2015).

This work presents the main hypothesis that internal communication has a significant impact on employee satisfaction in a public company. In the quantitative analysis of the questionnaire, various aspects of internal communication and general job satisfaction were considered. The research results for public companies highlight the significant importance of internal communication in explaining employee satisfaction. These findings are consistent with a study conducted in corporations (Tkalac Verčič, 2021), which indicates a positive relationship between employee involvement, organizational support, and satisfaction with internal communication. Furthermore, in a field study by Clampitt and Downs (1993), conducted in two representative service and manufacturing companies and using satisfaction questionnaires and conversations with all employees, it was found that high-quality internal communication is crucial for employee satisfaction.



The overall job satisfaction was explained to a lesser extent by the sociodemographic characteristics of employees (5.2% of the variance in overall job satisfaction), while it was significantly better explained by satisfaction with internal communication (44.3% of the variance in overall job satisfaction). This finding is in line with other research studies. Indeed, Borovec and Balgač (2017) also demonstrated that the impact of the sociodemographic characteristics of employees on overall job satisfaction was extremely small, accounting for only 3.1% of the variance in overall job satisfaction, in comparison to the overall explained variance in job satisfaction after introducing components related to satisfaction with internal communication, which accounted for 28.5% of the variance.

The most important predictor of overall job satisfaction was satisfaction with the communication climate ( $\beta=0.35$ ). These results confirmed the findings of the research by Sušanj Šulentić (2014), where regression analysis revealed a positive relationship between a high-quality communication climate and job satisfaction. Employees value open and timely communication, even in situations of unpleasant changes in the organization, which contributes to their overall job satisfaction (Sušanj Šulentić, 2014).

The highest correlation was obtained between satisfaction with communication in meetings and satisfaction with feedback ( $r=0.73$ ), while the lowest correlation was obtained between satisfaction with corporate communication and satisfaction with horizontal communication ( $r=0.43$ ). Unlike employees in public companies, in a study of police officers' job satisfaction by Borovec and Balgač (2017), the highest correlation was found between satisfaction with communication informativeness and satisfaction with the communication climate ( $r=0.56$ ), while the lowest correlation was found between satisfaction with communication with superiors and satisfaction with informal communication ( $r=0.29$ ).

Furthermore, regarding the second hypothesis, a positive and moderately strong correlation between satisfaction with corporate communication and the communication climate ( $r=0.66$ ) was confirmed, which is consistent with the study of police officers' job satisfaction by Borovec and Balgač (2017), where the highest correlation was also found between satisfaction with communication informativeness and satisfaction with the communication climate ( $r=0.56$ ). When employees are well-informed and more satisfied with their jobs, they perceive their workplace as more stable, which can increase their loyalty to the company (Sušanj Šulentić, 2014). When the employees receive clear information about the organization's goals, expectations, results, and developments, they feel informed and involved, which ultimately positively affects their workplace satisfaction.

In addition, the results also confirmed the third hypothesis about the positive correlation between the satisfaction with feedback and employees' trust in their superiors ( $r=0.70$ ), as one of the highest correlations. Hence, the findings obtained from the research showed that satisfaction with feedback was the lowest-rated component in the study of employee satisfaction with internal communication in public companies ( $M=2.98$ ). This confirmed previous research findings (Ćorić and Musa, 2015)

that employees tend to express the lowest level of satisfaction with the feedback they receive regarding their personal performance. Transparency in communication between managers and employees contributes to the sense of connection and engagement of the employees (Robinson, Perryman and Hayday, 2004); thus, it is problematic for the company if that component is absent. The lack of feedback on job performance and incentives for success can lead to a mild devaluation of the job itself and its function (Bolfek, Milković and Lukavac, 2017).

The existence of differences in satisfaction with horizontal communication based on the age and length of service of employees in a public company was not confirmed, meaning that the fourth hypothesis was rejected. Indeed, the differences in satisfaction with horizontal communication based on the age and length of service of employees in a public company were statistically negligible ( $\eta^2=0.004$ ,  $\eta^2=0.005$ ). Horizontal communication represents a component of internal communication where all employees display the highest degree of satisfaction, with minimal mutual deviations regarding age groups and length of service at a public company. In line with the observation that satisfaction with horizontal communication helps employees feel connected with their colleagues, the findings also confirm those of an existing study emphasizing the significant impact of quality relationships with colleagues, a team environment, and peer support on employees' sense of inclusion (Lemon, 2020).

A limitation of the research was, that potential participants had to be reminded multiple times to complete the survey and needed motivation to participate. Additionally, since this research concerns public companies, there is a prevailing sense of mistrust among employees about any form of job satisfaction surveys. Due to the lack of empirical analyses in this field, uncovering the impact of internal communication on the satisfaction of employees in public companies is important for the improvement of organization and business operations in public companies, as well as for enhancing the quality of services for citizens in Croatia.

## 5 CONCLUSIONS

Internal communication should simultaneously and equally be focused on timely information exchange and employee satisfaction. Employees should be active participants in all changes and activities, rather than just passive observers. In creating a corporate culture of collaboration, the way management behaves and communicates with employees daily is especially important. Public companies can successfully communicate with all stakeholders only through the synergy of internal and external communication.

However, if such internal communication is lacking in a public company, if annual employee meetings, as defined by law, are the only contact between subordinates and superiors, and if there are many levels of management between the top executives and employees, then all internal communication is reduced to informal communication under the direction of unions, while employee meetings turn into expressions of employees' frustration with management due to lack of information. Situations in which employees do not have a full understanding of the public company's operations and tasks are conducive to the spread of gossip and dissatisfaction.

In cases where employees do not have a positive opinion about the public company's leadership or if they do not trust the formal communication, they are more likely to trust the informal communication network. Therefore, it is important to avoid employees being left in uncertainty and relying on speculation; instead, they should be provided with relevant information and facts to reduce this gap. The organized presence and management of internal communication are signs that employees are considered a crucial group within the public company.

In line with these insights, large Croatian public companies were analysed: Croatian Post, Croatian Lottery, and the HŽ Passenger Transport Company.

Upon examining the results of the regression analysis, the main hypothesis was confirmed that employee satisfaction with internal communication significantly influences overall employee satisfaction and much more strongly than the sociodemographic characteristics of the employees. The particularly important aspects of internal communication were satisfaction with the communication climate and satisfaction with the communication with superiors. In fact, the research has shown that satisfaction with corporate information accounts for almost half of the variations in satisfaction with the communication climate, while satisfaction with feedback explains half of the variations in satisfaction with communication with superiors. Therefore, if employees receive adequate and timely information about themselves and their performance in the public company, they will tend to be satisfied with their communication with superiors. Furthermore, it was found that the employees were equally satisfied with horizontal communication regardless of their age and length of service. In this context, horizontal communication, the dimension with which employees are most satisfied in public companies, plays a vital role in the sense of connection with colleagues.

As a result, it can be concluded that, when employees in public companies in Croatia receive clear information about their organization's goals, expectations, results, and developments, they feel informed and included, which positively impacts their job satisfaction. The research results suggest that public companies should continuously invest in the development and improvement of internal communication processes to enhance employee satisfaction with their workplaces. To implement this, public companies should organize internal communication that provides employees with access to current information about the company and supply feedback on processes and work results in order to gain the trust of their employees. This can be achieved by ensuring transparency, fostering two-way communication, providing regular updates to employees, and promoting teamwork through communication channels within the company.

It would be desirable to conduct further research involving a larger number of medium-sized and small public companies to verify whether the conclusions drawn from this study of large public companies are applicable to all public companies.

### Disclosure statement

The author has no conflict of interest to declare.

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INTERNAL COMMUNICATION SATISFACTION QUESTIONNAIRE

Dear participants,

This research is conducted with employees in public companies. The aim of the research is to collect data on employee satisfaction with different ways of internal communication. The data will be used for scientific purposes for the preparation of a doctoral dissertation at the postgraduate university study of Communication Studies. By answering the questions from the questionnaire, you will help us receive information about which ways of communication at work you are satisfied with, and which you would recommend for improvement.

It takes 5-10 minutes to answer all the questions from the questionnaire. Filling out the questionnaire is completely anonymous and the answers will not be analysed individually, but exclusively as a group as a common opinion of all respondents in all public companies participating in the research.

Your participation in this survey is voluntary and you have the right to withdraw at any time.

Thank you for participating!

1. Please rate how satisfied you are with feedback

	1 – Extremely dissatisfied	2 – Dissatisfied	3 – Neither satisfied nor dissatisfied	4 – Satisfied	5 – Extremely satisfied
Information on the consequences of poor job performance	1	2	3	4	5
Information on how much I contribute to the common success	1	2	3	4	5
Information about how much my work is valued within the organization	1	2	3	4	5
Feedback on how I do my job	1	2	3	4	5

**2. Please assess how satisfied you are with communication with your superior?**

	1 – Extremely dissatisfied	2 – Dissatisfied	3 – Neither satisfied nor dissatisfied	4 – Satisfied	5 – Extremely satisfied
With the availability of the immediate superior	1	2	3	4	5
To what extent is my supervisor familiar with the problems I encounter at work?	1	2	3	4	5
How much does my supervisor understand my problems?	1	2	3	4	5
My potential being recognised by my immediate superior.	1	2	3	4	5

**3. Please assess how satisfied you are with horizontal communication (with colleagues)?**

	1 – Extremely dissatisfied	2 – Dissatisfied	3 – Neither satisfied nor dissatisfied	4 – Satisfied	5 – Extremely satisfied
Availability of colleagues	1	2	3	4	5
How well I communicate with my team members?	1	2	3	4	5
Outcomes of communicating with colleagues	1	2	3	4	5
By the willingness of my colleagues to receive criticism	1	2	3	4	5

**4. Please assess how satisfied you are with informal communication?**

	1 – Extremely dissatisfied	2 – Dissatisfied	3 – Neither satisfied nor dissatisfied	4 – Satisfied	5 – Extremely satisfied
The number of decisions taken on the basis of informal communication	1	2	3	4	5
The amount of gossip in the organization	1	2	3	4	5
The amount of time I spend in informal communication	1	2	3	4	5
The usefulness of information transmitted informally	1	2	3	4	5

## 5. Please assess how satisfied you are with corporate awareness?

	1 – Extremely dissatisfied	2 – Dissatisfied	3 – Neither satisfied nor dissatisfied	4 – Satisfied	5 – Extremely satisfied
Information on the Work Regulations	1	2	3	4	5
Information about the turnover, profit and financial success of the organization	1	2	3	4	5
Information about the changes in the organization	1	2	3	4	5
Information about legal regulations that affect my organization's operations	1	2	3	4	5

## 6. Please assess how satisfied you are with the communication climate?

	1 – Extremely dissatisfied	2 – Dissatisfied	3 – Neither satisfied nor dissatisfied	4 – Satisfied	5 – Extremely satisfied
How much communication in the organization helps me feel an important part of it	1	2	3	4	5
How much communication in the organization helps me identify with it	1	2	3	4	5
How much communication in the organization promotes organizational values	1	2	3	4	5
To what extent communication in the organization encourages me to achieve organizational goals	1	2	3	4	5

## 7. Please assess how satisfied you are with the quality of the communication medium?

	1 – Extremely dissatisfied	2 – Dissatisfied	3 – Neither satisfied nor dissatisfied	4 – Satisfied	5 – Extremely satisfied
Communication medium (written notifications, intranet, oral communication, etc.)	1	2	3	4	5
The ability to communicate through modern medium (personal computers, mobile phones)	1	2	3	4	5
The quality of communication through modern medium (personal computers, mobile phones)	1	2	3	4	5
By choosing the medium to communicate with me	1	2	3	4	5



## 8. Please assess how satisfied you are with the communication at the meetings?

	1 – Extremely dissatisfied	2 – Dissatisfied	3 – Neither satisfied nor dissatisfied	4 – Satisfied	5 – Extremely satisfied
How well organized are the meetings I attend?	1	2	3	4	5
The usefulness of the information obtained at the meetings	1	2	3	4	5
Do I receive information that is important for getting the job done in time?	1	2	3	4	5
Duration of meetings	1	2	3	4	5

## 9. Please assess how satisfied you are with your job overall?

	1 – Extremely dissatisfied	2 – Dissatisfied	3 – Neither satisfied nor dissatisfied	4 – Satisfied	5 – Extremely satisfied
Overall job satisfaction	1	2	3	4	5

## 10. Nine aspects of internal communication are listed. With a score of 1 to 5, please, rate how important each aspect of internal communication is to you personally?

	1 – Extremely unimportant	2 – Unimportant	3 – Neither important nor unimportant	4 – Important	5 – Extremely important
Get feedback	1	2	3	4	5
Communication with the supervisor	1	2	3	4	5
Horizontal communication (with colleagues)	1	2	3	4	5
Informal communication	1	2	3	4	5
Corporate awareness	1	2	3	4	5
Communication climate	1	2	3	4	5
Quality of the media of communication	1	2	3	4	5
Communication in meetings	1	2	3	4	5
General job satisfaction	1	2	3	4	5

- 11. Total length of service in the company where you are currently employed:**
- a) less than 5 years
  - b) from 5 to 9 years
  - c) from 10 to 19 years
  - d) from 20 to 29 years
  - e) more than 30 years
- 12. Type of employment:**
- a) Fixed-term contract
  - b) Indefinite contract
- 13. Managerial position in the company (manager, director):**
- a) No
  - b) Yes
- 14. What is your sex:**
- a) Female
  - b) Male
- 15. Which age group do you belong to:**
- a) less than 25 years
  - b) from 25 to 34 years
  - c) from 35 to 44 years
  - d) from 45 to 54 years
  - e) more than 55 years
- 16. Highest level of education achieved:**
- a) Primary school
  - b) Secondary school
  - c) Undergraduate studies
  - d) Graduate studies
  - e) Postgraduate study