

Contents lists available at ScienceDirect

## Heliyon

journal homepage: www.cell.com/heliyon



## Research article

# Communication from below: Feedback from employees as a tool for their stabilisation

Hana Urbancová <sup>a,\*</sup>, Pavla Vrabcová <sup>b,c</sup>, Zuzana Pacáková <sup>d</sup>

- <sup>a</sup> Department of Human Resources, University of Economics and Management, Prague, Czech Republic
- <sup>b</sup> Department of Economic Statistics, Faculty of Economics, Technical University of Liberec, Liberec, Czech Republic
- <sup>c</sup> Management Department, University of Economics and Management, Prague, Czech Republic
- <sup>d</sup> Department of Statistics, Faculty of Economics and Management, Czech University of Life Sciences, Prague, Czech Republic

### ARTICLE INFO

#### Keywords:

Direct communication with management Organisational climate Communication process Employee-to-management communication Participation and knowledge sharing Clarity

## ABSTRACT

Given the current organisational changes in a turbulent global economic context, is the appropriate setting of the communication process, with an emphasis on feedback from employees to management for organisations to cope with external changes. Following the COVID-19 pandemic, communication from below is required as it is a primary issue in the context of significant organisational change and can help to shape positive perceptions of change. The main aim is to evaluate the relationships between selected organisational variables regarding the use of different forms of employee-to-management communication. A questionnaire survey of Czech organisations ( $n_1 = 183$ ) was conducted, and the data obtained were evaluated using statistical tests (Wald statistic) to determine whether a demonstrable relationship existed between the traits. The results showed a relationship between the application of most types of bottom-up communication and organisation size in terms of the number of employees, majority ownership, and, for selected types of communication forms, annual turnover. However, none of the communication types examined depended on the sector in which an organisation operated. The results of the qualitative research confirmed that grassroots communication was crucial in all the types of organisations examined and helped to improve organisational climate. This study contributes to theory and practice by confirming that feedback from employees is a tool for their stabilisation. The managerial implications include the finding that effective feedback settings help prevent conflicts in organisations. The study contributes significantly to the deepening of knowledge on the issue of systematic communication leading to the sustainability of organisations, which is also demonstrated by the almost zero overlap with previous studies.

## 1. Introduction

How information is transmitted often fundamentally determines how an organisation can respond to stimuli both internally and externally.

Employees, their performance, and the direction of an organisation are strongly influenced by how employees communicate with one another and with management (communication from below); how management communicates with employees (top-bottom communication); and how employees and management manage their emotions and can constructively and openly communicate. Intra-

E-mail address: hana.urbancova@vsem.cz (H. Urbancová).

https://doi.org/10.1016/j.heliyon.2024.e28287

<sup>\*</sup> Corresponding author.

organisational communication and its effectiveness are related to the established organisational culture [1-4].

According to Hosseini et al. [5], management's indifference to feedback from employees in an organisation, where the organisational culture in not set appropriately, can severely disadvantage the organisation because without due regard to the employees' opinions, the organisation cannot function in a dynamic environment and will gradually lose its competitiveness.

Basic communication with employees is undoubtedly part of supervisors' normal, day-to-day management. Supervisors assign tasks to employees and check and evaluate their work. However, as studies have shown [4,6,7], if managers are satisfied with only basic communication, problems may arise due to misunderstandings, the sabotaging of decisions, and sharing of misleading and false information when the organisation must communicate important information to its employees, which affects the latter's performance, reliability, and loyalty. To increase employee stability and establish an effective internal-communication system in an organisation, regular communication from below [8] is necessary to provide management with regular feedback and knowledge-sharing opportunities [9,10] on how to raise performance [8,11] and motivate employees [12] as well as achieve a positive organisational climate [13] and proactive decision making [14,15]. Hosseini et al.'s [16] results demonstrate that supporting feedback from employees in knowledge-oriented organisations promotes the growth and development of organisations towards eliminating the waste of tangible and intangible assets.

Underestimating the contribution of internal communication to the bottom line is very often the cause of many misunderstandings, conflicts, unnecessary departures of qualified employees, as well as the subsequent inability of organisations to fulfil orders and requirements because of a lack of capacity and know-how. Ensuring employee feedback and working with employees is a task for the management of organisations, which they must be able to effectively perform to maintain employees' stability. A significant knowledge gap exists in the area of internal communication from below. The first point to highlight is that the scope of research on the concept of organisational communication is extremely broad, a point with which Downs et al. [17] concur. To the best of our knowledge, no study has yet exclusively examined bottom-up communication in the context of identification variables. Moreover, some studies do not distinguish between bottom-up and top-down communication (see, for example [13,18,19]). The present study helps to fill this important knowledge gap.

The text discusses and evaluates the types of communications that result from current research and practical applications in organisations in the Czech Republic. Communication via social media in organisations, with the exception of Teams, is prohibited in organisations, and do not correspond to the direction of communication of organisations with regard to cyber security. Some social networks, e.g. TikTok, also forbidden by the current legislation of the Czech Republic.

The main aim is therefore to evaluate the relationships between the selected identifying variables of organisations on the use of different forms of employee-to-management communication.

It can be summarized that for any organisation, intra-organisational communication is among the foundations for its success or failure, particularly in the context of the effectiveness of knowledge sharing [10]. Intra-organisational communication establishes the communication network that enables the very existence of the organisation. This study confirmed current results of Charoensukmongkol, Phungsoonthorn [20] and Vrabcová et al. [21] and their results added.

## 2. Theoretical background

In practice, upward communication is used by employees to express their opinions, needs, or suggestions. Organisations usually receive this type of communication favourably in order to consider this information in trying to accommodate employees' wishes to promote their stability and loyalty, according to Genc [22], Acosta et al. [23], and Chikazhe, Nyakunuwa [24].

According to the literature, upward communication is particularly useful for the following aspects:

- Clarity: Jacobs et al. [25] and Genc [22] assert that verification of information between an employee and their direct supervisor or in other upward-communication channels are crucial, including feedback on the correctness of the understanding of assigned tasks, etc.
- Improving productivity: every organisation places a premium on optimal productivity, and this can be achieved through an effective communication system. If an employee can talk to their supervisor about career plans, organisational direction plans, etc., this will help to stabilise and maintain high productivity at work. Sadia et al. [14], Stacho et al. [2], Chikazhe, Nyakunuwa [24], and Vrabcova et al. [21] are some of the studies focusing on this research area.
- Participation and knowledge sharing: this aspect of communication serves to enable all the levels of an organisation's organisational and management schema to participate and feel more involved in the company's decision making; in this case, employee participation in an organisation's decision making [3,4,15]. Suzuki et al. [10] confirmed that overcoming communication barriers continuously facilitated effective knowledge sharing.
- **Problem solving:** when all the employees are involved in the communication process, problems can arise that are more quickly solved when shared between everyone or through the intervention of an employee regardless of the level to which they belong, which is crucial in organisations, according to Charoensukmongkol, Phungsoonthorn [20] and Vrabcová et al. [21].

The above consider the division of organisational communication, according to De Nobile et al. [26], who distinguished four functions: directive, supportive, cultural, and democratic communication. Upward communication is often highly valued by employees who hold the lowest job positions. If feedback from employees towards management is also viewed positively, optimal communication between all the employees in the organisation, regardless of their hierarchy in the organisation, can be expected to be achieved. The modes of communication from below that are the subject of quantitative and qualitative research can be undertaken in

various forms, which are presented in Table 1.

The article is based on available relevant assessed types of communication from the bottom to the top from domestic and international researches with regard to managerial implications in organisations operating in the Czech Republic. Suzuki et al. [10] found that the benefits from intra-organisational communication were greater for service organisations than for manufacturing firms. Considering previous research [4,21,24,28], it is always advisable to use a combination of communication forms with a direct supervisor using at least one other tool, such as an anonymous mailbox, email communication, contact form, or directly through a human resource (HR) officer. These tools are the subject of our investigation.

It is necessary for an organisation to ensure passage of information through communication channels; failure to do so leads to ambiguity of management or manager's requirements, or the vagueness of information when it is not understandable leads to employee destabilisation, according to Hitka et al. [6] and Stacho et al. [2]. The attentive monitoring of information from the bottom up brings several positives to management: the ability to satisfy the basic requirements of the members of the organisation [29,30], ability to encourage, ability to prevent problems, and ability to solve problems before a critical situation occurs [4,20].

The combination of such information creates an appropriate communication mix that maintains attention and, simultaneously, shows that the management cares about the employees. Moreover, it creates the conditions for non-standard communication when a crisis occurs [18,31], such as the COVID-19 pandemic, high inputs, high inflation, an acquisition, the need to add or change jobs, etc. Starting to establish internal communication with an emphasis on bottom-up communication only at this point is expensive, risky, unproductive and problematic, usually resulting in destabilising employees and their decision to leave the organisation.

According to studies conducted in the Czech Republic and Slovakia [2,6,21] or abroad [3,24,28], it is necessary to identify the appropriate combination of forms of communication to eliminate communication noise and maintain employee satisfaction and stable teams. As stated by Hosseini et al. [5], communication and feedback from employees leads to the promotion of trust, learning, and innovation and helps team performance. Therefore, organisational management must not forget that employee feedback, however negative, is inexpensive and effective; however, it also requires management and employees to be willing and able to and capable of communicating, and this is not always the case in organisations. We can identify a knowledge gap in terms of a lack of comparison across sectors in the economy and different organisations when collectively considered. The research questions are addressed based on the evaluated data from primary research.

## 3. Material and methods

The paper includes an introduction to the issue, the theoretical background to communication from below (employee-to-management), and how it relates to information transparency and accountability, followed by the research methodology. The third part presents the main results of the quantitative research based on data from a questionnaire survey within Czech organisations, followed by a discussion and a final summary of the results concerning the formulated main objective.

In total, 850 Czech organisations were contacted by e-mail from the ALBERTINA database from June 2020 to December 2020. The questionnaire was designed to comply with the ethical rules and requirement for anonymity. It was completed mainly by managers of the organisations or owners of small businesses.

The respondents confirmed that by participating in the survey, they agreed to the use of their answers for the purposes of evaluating the survey. The questionnaire survey was created in accordance with the ethical codes of research in the Czech Republic (Ethical framework for research, Resolution of the Government of the Czech Republic, dated August 17, 2005 No. 1005, as amended). The quantitative data ( $n_1 = 183$ ) were obtained through a questionnaire survey in Google Forms; the return rate was approximately 22%. The reliability was tested through a preliminary survey ( $n_2 = 10$ ) to also determine whether the questions were understandable.

The primary identification questions of the questionnaire survey included the following variables (see Table 2):

Binary logistic regression models were created, with the use/non-use of the selected form of communication (YES/NO)

**Table 1**Types of communications from the bottom to the top.

Type of communication from below	Description	Reference
Direct communication with management	It improves the working environment and job satisfaction; employees are reassured	[2,4,10,
	that management is interested in them. Knowledge sharing in crises, crisis communication in the COVID-19 period	20]
Communication through immediate superior	Solidarity behaviour among employees; verification of information.	[3]
Communication via employee representatives (trade unions)	Internal communication on the effect of employee empowerment on the perceived service quality. Negotiation on improving the working conditions (wage increase, benefits, home-office setting, etc.).	[24]
Communication via human resource (HR) officer	Promoting the perception of reality as best as possible, feedback to the set personnel processes.	[2]
Intra-company complaint system (e.g. filing a complaint, e.g. via email, anonymous mailbox, contact form, etc.)	Violation of internal procedures, corruption, bullying, etc.	[27]
Surveys of employee opinion (feedback), views, and attitudes	Discussions with employees on key topics affecting the functioning of the organisation—feedback from employees on home-office work, the security situation with COVID-19 at the workplace, the occurrence of psychological and physical problems among employees.	[18,28]

Source: own elaboration.

representing the target variable. In the questionnaire survey, respondents were asked to select all types of communications applied in the organisation. For data analysis, the answers were represented by a set of six binary variables, with 0 for not using the particular type of communication and 1 for its application. Each model only considers four organisational characteristics: size according to the number of employees with three classes: i) up to 50 employees, ii) 51–249 employees, iii) 250 employees and more; majority ownership with two classes: i) domestic, ii) foreign; annual turnover with three classes: i)  $\leq$ EUR 10 million, ii) EUR 11–50 million, iii) >EUR 50 million; and the sector with two classes: i) primary, ii) secondary, iii) tertiary. Before building the logistic regression models, we have carefully described the data using contingency tables, as suggested in Hosmer et al. [32]. The analysis showed that the usage of individual communication types differs among organisations of different sizes, both according to the number of employees and annual turnover. Still, there were substantial differences between organisations from different sectors and domestic and foreign organisations. Therefore, 2-way interaction terms were also examined.

According to the probability of Wald statistic used to test individual parameters in the model, only parameters significant at a 1% significance level or lower were included in the equation. The models were estimated using a stepwise backward elimination approach. The following equation represents the logistic regression model:

$$\ln\left(\frac{P(YES)}{1 - P(YES)}\right) = a + b_1 x_1 + b_2 x_2 + \dots + b_k x_{k_k}$$
(1)

where the left-hand side represents the logit of using the particular type of grassroots communication, and the right-hand side consists of the linear predictors, where b1, b2, ..., bk are the estimated regression parameters for predictors x1, x2, ..., xk. The Wald statistic tests whether the b regression coefficient significantly differs from zero. If it does, we can assume the predictor is significantly related to the target variable. Wald statistics is calculated as shown in equation (2).

$$W = \frac{b}{SE_b},\tag{2}$$

where b is the sample regression coefficient, and  $SE_b$  is the standard error of the regression coefficient.

The statistical analysis was conducted using IBM SPSS Statistics, v. 28. The results, based on synthesis, induction, and deduction, are presented in the Results section.

Based on the quantitative research data, qualitative research was conducted through in-depth interviews with managers of the organisations ( $n_3 = 12$  plus 2 moderators). Managers were confronted with the same questions from the questionnaire survey (level of using bottom-up communication types, benefits of bottom-up communication, relationships among the bottom-up communication types, and relationship between internal communication and critical knowledge in the organisation).

## 4. Results

As the results of the number of studies mentioned above show, effective communication significantly impacts any organisation's success. The task of communication is to unify all the activities by establishing a mutual communication link between employees and management, without which common goals cannot be achieved. The absence of communication would make it completely impossible to coordinate their activities.

Table 3 provides frequencies of organisations using different types of communication from below. The most frequent communication types were direct communication and communication through immediate superior, both applied in more than half of enterprises.

Different types of communication from below are used based on various organisation's characteristics. Therefore, we examined the factors affecting the use of different kinds of communication. Multivariate statistical methods were used to evaluate the impact of more identification variables as well as possible interactions among the factors. A binary logistic regression model with interactions was estimated for each type of communication. We examined the following factors: i) the size of the organisation (3 levels); ii) majority ownership (2 levels); iii) annual turnover (3 levels); iv) sector (2 levels). Due to the low number of enterprises from the primary sector,

**Table 2**Organisations that participated in the research—basic data.

Characteristics	Categories		
The sector of the organisation	Primary	Secondary	Tertiary
	4.5%	40.2%	55.3%
The size of the organisation	≤50	51-250	>250
	26.8%	27.9%	45.3%
Majority ownership	Domestic	Foreign	
	45.3%	54.7%	
The type of organisation	Private	Public	Non-profit
	86.0%	11.2%	2.8%
Annual turnover	≤ EUR 10 million	EUR 11-50 million	> EUR 50 million
	38.5%	38.0%	23.5%

Source: own survey.

**Table 3**Number of organisations using different types of communication from below.

Type of Communication	Number of organisations	Percentage of organisations
Direct communication with management	101	55.19%
Communication through immediate superior	96	52.46%
Communication via employee representatives (trade union)	63	34.43%
Communication via HR officer	54	29.51%
Intra-company complaint system	41	22.40%
Surveys of employee opinion	43	23.50%

Source: own survey, own elaboration using IBM SPSS Statistics.

organisations from primary and secondary sectors were merged into one class. The model also accounts for two-way interactions between the factors.

Table 4 shows the results of the binary logistic regression model for *direct communication with management*. The table provides the estimated regression coefficients, Wald test statistic with the corresponding p-value, and the change in odds (Exp(B)). The category denoted as (0) is the reference category of the categorical variable.

The results of the quantitative research showed that the application of direct communication depends on the size of the organisation. There is a significant difference between the smallest and the largest organisations, where in organisations with 250 or more employees, the chance of using direct communication decreases by approx. 75% (Exp(B) = 0.233).

Table 5 shows the results of the logistic regression model for communication through immediate superior.

Detailed analysis of the results showed that communication through immediate superiors was reported in more than half of companies with 250 employees or more in all three annual turnover classes. By contrast, it was not reported in more than 40% in any turnover class in the case of the smallest organisations according to the number of employees. Thus, this still demonstrates the fact that the size of the organisation is crucial for applying communication through immediate superiors.

Table 6 shows estimated parameters for the communication via employee representatives (trade union) regression model.

The adoption of trade union communication grows with the organisation's size, where the chances of communication via trade union representatives are 12 times higher in the largest enterprises than in the smallest ones. The proportion of enterprises using communication via trade unions is also significantly different between companies with up to 10 million euros and 11 to 50 million euros, where the middle annual turnover class showed the lowest frequency of organisation using communication via employee representatives (27.5%).

Even though the adoption of this type of communication dominates in large organisations (44.6%), the proportion of enterprises using communication via employee representative is significantly higher in organisations with up to 50 employees in the tertiary sector compared to primary/secondary. The interaction term between ownership and sector reflects the higher proportion of foreign organisations with a trade union representative in the primary and secondary sectors.

Table 7 summarizes the logistic regression results for the use of communication via HR officers.

Communication via HR officer is less common in organisations from the tertiary sector (24.2%) than in secondary or primary (35.7%). Even though the type of communication is substantial in the largest companies, the proportion highly differs between sectors in the case of middle-sized companies. Only 4% of middle-sized organisations in the tertiary sector said they use communication via HR officers, compared to 34% in the primary and secondary sectors.

Only 22.4% of businesses said they use an intra-company complaint system, with higher frequency in middle-sized and large companies. In these organisations, the proportion also significantly increases with high turnover levels, where the frequency exceeded 40% in the case of an annual turnover of more than 50 million euros, as confirmed by a highly significant size  $\times$  turnover interaction term shown in Table 8.

Lastly, we examined the factors affecting the adoption of surveys of employee opinion. Table 9 provides the results of the binary logistic regression model.

The results show that the application of surveys significantly differs between organisations from different sectors. Almost 30% of organisations in the tertiary sector reported conducting employee opinion surveys, compared to 17% in the primary/secondary sector. The use of surveys increases with number of employees; however, the increase is much higher in the tertiary sector. In the case of foreign organisations, it is more common in both primary/secondary and tertiary sectors than in domestic ones, as shown by the significant interaction term between ownership and sector. In the primary/secondary sector, surveys are mostly conducted in organisations with an annual turnover of 50 million euros or more, while in the tertiary sector, they are also more often conducted in

Table 4
Binary logistic regression model for *direct communication with management*.

Identification variable	В	Wald statistics	p-value	Exp(B)
Size		21.284	< 0.001	_
(0) up to 50 employees				
(1) 51-249 employees	0.016	0.001	0.972	1.016
(2) 250 employees and more	-1.456	13.860	< 0.001	0.233

Source: own survey, own elaboration using IBM SPSS Statistics.

**Table 5**Binary logistic regression model for communication through immediate superior.

Identification variable	В	Wald statistics	p-value	Exp(B)
Interactions	0.100	10.040	.0.001	1 010
size X turnover	0.192	12.948	< 0.001	1.212

Source: own survey, own elaboration using IBM SPSS Statistics

**Table 6**Binary logistic regression model for communication via employee representatives (trade union).

Identification variable	В	Wald statistics	p-value	Exp(B)
Size		9.584	0.008	
(0) up to 50 employees				
(1) 51-249 employees	1.443	5.448	0.020	4.233
(2) 250 employees and more	2.514	9.583	0.002	12.358
annual turnover		5.493	0.064	
$(0) \leq EUR \ 10 \ million$				
(1) EUR 11-50 million	-1.085	4.623	0.032	0.338
(2) > EUR 50 million	-0.452	0.581	0.446	0.637
Interactions				
size X sector	-0.480	5.013	0.025	0.619
ownership X sector	0.581	5.613	0.018	1.788

Source: own survey, own elaboration using IBM SPSS Statistics.

**Table 7**Binary logistic regression model for communication via HR officer.

Identification variable	В	Wald statistics	p-value	Exp(B)
Sector (0) primary/secondary				
(1) tertiary	-2.282	14.677	< 0.001	0.102
Interactions size X sector	0.741	18.150	< 0.001	2.098

Source: own survey, own elaboration using IBM SPSS Statistics.

**Table 8**Binary logistic regression model for intra-company complaint system.

Identification variable	В	Wald statistics	p-value	Exp(B)
Interactions				
size X turnover	0.257	16.135	< 0.001	1.293

Source: own survey, own elaboration using IBM SPSS Statistics.

**Table 9**Binary logistic regression model for surveys of employee opinion.

Identification variable	В	Wald statistics	p-value	Exp(B)
Sector				
(0) primary/secondary				
(1) tertiary	2.889	5.512	0.019	17.980
Interactions				
size X sector	0.687	9.953	0.002	1.989
ownership X turnover	0.823	7.123	0.008	2.278
ownership X sector	-1.141	6.690	0.010	0.319
turnover X sector	-0.837	5.132	0.023	0.433

Source: own survey, own elaboration using IBM SPSS Statistics.

organisations with lower annual turnover levels.

Fig. 1 below shows the relationships between the different types of communication from below. The graph shows YES (communication adopoted) and NO (communication not adopoted) categories for each type of communication that differs by color. The size of the circle reflects the number of organisations. The thicker the line, the more often the combination occurs in organisations. Fig. 1

shows which communication methods are used together by the organisations and which are not associated very often. The widths of the lines correspond to the number of organisations. The graph only shows the minimum of 25 relationship counts.

Table 10 presents the combination of the use of the grassroots communication methods and relationship with the selected identification questions. In the logistic regression model, the dependent variable had two classes: 1 for organisations using more than two types of grassroot communication and 0 for organisations with a maximum of two communication types. The model only showed one significant term: the interaction term between size and turnover.

Almost seventy percent (69.4%) of organisations stated that they used a maximum of two types of communication from below, and 32.2% answered they only use one type of communication. However, we can conclude that combining more than two types of communication is most frequent in organisations with 250 or more employees, where it does not depend that much on the annual turnover as in middle-sized organisations.

#### 5. Discussion

Barendsen et al.'s [33] and Suzuki et al.'s [10] results showed that establishing internal communication supported the ordinariness of processes in organisations. It can be agreed that unnecessary communication barriers play a role in bottom-up communication related to employees' fears of open communication, especially the retaliation that could befall them for openly expressing their opinions. As our results show, it is also often due to the fact that managers forget that they occupy a position of power, i.e. unequal power, vis-à-vis their employees and, therefore, the latter's communication needs must be sufficiently encouraged or supported.

Based on this study's results, every employee can generate creative ideas to help their organisation grow, which is consistent with Dee, Leisyte's [9] findings and extends Urbancová et al.'s [34] results. Employees can offer their vision and suggestions to improve all types of strategies (e.g. innovation, marketing, sales, etc.). Effective communication management could improve job security [35]. Upward communication can help solve problems that arise in an organisation and accelerate the process of adapting to changes or avoiding problems [19,36].

Although there is growing pressure to use chatbots in work processes in some types of organisations (e.g. mobile operators) with an emphasis on reducing costs, time and the need to reduce jobs, this is an under-researched area that is at the beginning of its development in many fields. In some areas, e.g. the academic sphere, the use of chatbots is completely prohibited in Czech organisations. It should be noted that a chatbot cannot be considered an effective tool for employee feedback. For employees stabilisation, the employees must cooperate with their supervisor and have the opportunity to give feedback and see that the feedback is being worked on.

The results are consistent with those of Jiang, Men [37] and Dolomore et al. [18] that transparent communication helps to set an appropriate social climate and is determined by the quality of the interpersonal relationships and employee interaction in an organisation. Social climate in an organisation also refers to how employees perceive the organisational culture. Signs of social climate are often not obvious at first glance and, therefore, the importance of grassroots communication increases. Some employees prefer impersonal feedback (e.g. in the form of an anonymous mailbox). Extreme manifestations, such as a tense climate leading to conflicts, are particularly noticeable to HR managers or external stakeholders. The findings are consistent with those obtained by Chen et al. [38] that the current digital age, based on social networks with the possibility of quick feedback from employees not only inside an organisation but also its publication, increases the number of conflicts between employees and management of organisations. The formation of a favourable climate is influenced by the type of work performed, form of cooperation, size of the workplace and work group, how management is conducted and its directions, and frequency and methods of communication set-up, among others. Consistent with previous research (e.g. Refs. [4,22,25,27,28,39]), it can be concluded that the arrangement of employees in the

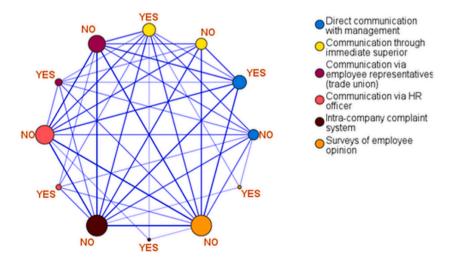


Fig. 1. Relationships between the different types of bottom-up communication used in the surveyed organisations: Source: own elaboration using IBM SPSS Statistics.

**Table 10**Binary logistic regression model for using more than two types of communication from below.

Identification variable	В	Wald statistics	p-value	Exp (B)
Interactions				_
size X turnover	0.367	32.476	< 0.001	1.444

Source: own survey, own elaboration using IBM SPSS Statistics.

workplace, method of communication, transfer of work tasks, and cooperation between teams are necessary circumstances that affect the operation of the entire organisation as well as its further development and success. We can summarise that the theoretical background has identified a knowledge gap in the field of internal communication from below, where no study has yet exclusively examined communication from below in the context of identification variables. Based on the research findings, the theoretical contribution of the study can be characterised as advancing the theory through the following:

- The application of the selected forms of grassroots communication depends on the size of the organisation in terms of the number of employees.
- The application of the selected forms of grassroots communication depends on the majority ownership (domestic or foreign).
- The application of the selected forms of grassroots communication depends on the annual turnover of the organisation.
- The application of the selected forms of grassroots communication depends on the sector in which the organisation operates.

The application of selected grassroots communication differs for various combinations of size, sector, annual turnover and majority ownership. A major limitation in practice can be seen in the failure to distinguish the differences between communication from below and from above. The current study confirms that communication from below is a necessary feedback tool for ensuring employee stabilisation. The important role of communication from below is also emphasised by the Tomas Bata management system, whose principles and philosophies are not limited by time and aim at sustainable communication and sustainable business, as confirmed by Balaban et al. [40]. The emphasis regarding Czech organisations' conditions is even more crucial because Tomas Bata was a Czechoslovak manager with worldwide influence whose decisions were based on the evaluation of his employees. Additionally, he is considered the most important manager in the history of the Czech Republic.

Based on this study's results, it is recommended to the management of organisations to focus on establishing employee feedback as this is a relatively inexpensive way to obtain ideas for changes and improvements that can positively further develop the whole organisation.

A follow-up study will be of a longitudinal nature and will evaluate the impact of establishing an internal communication system on the number of employees, turnover, and costs. Last, and equally important, the intention is to investigate selected managers' and employees' characteristics and internal relationships in effective knowledge sharing in both directions of communication. The conclusions based on this study can expand the research areas on the theoretical and practical levels.

## 6. Conclusion

The results showed that at the 5% level of significance, the application of the selected forms of bottom-up communication varied according to the size of the organisation, number of employees, majority ownership, and, for selected types of communication, annual turnover. Direct communication with management is evidently more frequently used in domestic firms and organisations with fewer employees. In contrast, organisations with a majority of foreign ownership and large organisations, both in terms of the number of employees and annual turnover, are characterised by a combination of a greater number of forms of communication, particularly communication through an immediate supervisor, communication through an HR officer, and an in-house complaint system. According to more detailed examination of the results, it is evident that communication through an immediate supervisor, trade union representatives or a personnel officer is associated with the size of the organisation in terms of the number of employees and/or amount of the annual turnover, and for the last two also to the sector. The introduction of an in-house complaint system is more strongly linked to companies with a high annual turnover and depends, to a lesser extent, on the size of the organisation as measured by the number of employees.

The results of the qualitative research have a practical managerial implication: While it was confirmed that the existence of communication from below was important in all types of organisations examined, such communication helps to improve the organisational climate and contributes to employee stabilisation. Thus, for a successful and sustainable business, it is essential to implement effective communication both from below and from above. These results also extend management theory in area of the communication in organisations.

This study has several limitations, in addition to being limited to organisations based in the Czech Republic. The managers who completed the survey might have tended to improve the profiles of their organisations. However, the respondents were advised of their anonymity in the cover letter and were asked to answer honestly. The questions were formulated in a non-leading manner and conformed to all the rules of socio-economic research. Since a probability sample of organisations was selected and this sample can be considered generalisable to the whole population of Czech organisations, additional variables related to grassroots communication will need to be further investigated in future based on the generations of employees working in the organisations.

Another limitation relates to the relatively narrow sample of organisations, which means that the results cannot be generalised

globally. However, these are important findings that advance the theory and practical direction of organisations in establishing sustainable business communication. Although the results cannot be generalised to the entire population, this is an important sample across different organisations (sectors, size, majority ownership, the type of organisation, and annual turnover).

## **Funding**

This study was supported by Bratislava University of Economics and Management in the form of an international scientific project grant (4/2023-M, "The meaning and application of social responsibility in selected companies") and KEGA (012UCM-4/2022, "Human Resources Management in a Digital World – A Bilingual (Slovak-English) Course Book with E-learning Modules based on Multimedia Content"). The result was created in solving the VEGA (No. 1/0038/22) "Application of competitive digital games for the team cohesion development and social adaptation of Generation Z". The funders had no role in study design, data collection and analysis, decision to publish, or preparation of the manuscript.

## Data availability statement

The datasets used and analysed during the current study available from the corresponding author on reasonable request.

### CRediT authorship contribution statement

Hana Urbancová: Writing – review & editing, Writing – original draft, Supervision, Resources, Project administration, Conceptualization. Pavla Vrabcová: Writing – review & editing, Writing – original draft, Project administration, Funding acquisition, Formal analysis, Conceptualization. Zuzana Pacáková: Validation, Software, Methodology, Data curation.

## Declaration of competing interest

The authors declare that they have no known competing interests.

#### References

- [1] J. Gochhayat, V.N. Giri, D. Suar, Influence of organizational culture on organizational effectiveness: the mediating role of organizational communication, Global Bus. Rev. 18 (3) (2017) 691–702.
- [2] Z. Stacho, K. Stachová, L. Varečková, J.G. Matúšová, Direction of businesses operating in Slovakia to develop key managerial competencies, Prod. Eng. Arch. 27 (4) (2021) 291–295, https://doi.org/10.30657/pea.2021.27.39.
- [3] R. Prouska, M. Nyfoudi, A. Psychogios, L.T. Szamosi, A. Wilkinson, Solidarity in action at a time of crisis: the role of employee voice in relation to communication and horizontal solidarity behaviour, Br. J. Manag. (2022), https://doi.org/10.1111/1467-8551.12598.
- [4] R. Siahaan, Effect of work environment on employee satisfaction with work communication as an intervening variable, JOEL: J. Educ. Lang. Res. 1 (7) (2022)
- [5] E. Hosseini, M. Tajpour, A. Salamzadeh, A. Ahmadi, New Teaching resources for management in a globalised worldmanaging human resources in smes and start-ups, in: Chapter 6: Team Performance and the Development of Iranian Digital Start-ups: The Mediating Role of Employee Voice, 2022, pp. 109–140, https://doi.org/10.1142/9789811239212\_0006.
- [6] M. Hitka, P. Štarchoň, S. Lorincová, Z. Caha, Education as a key in career building, J. Bus. Econ. Manag. 22 (4) (2021) 1065–1083. ISSN 1611-1699. Available at: https://journals.vgtu.lt/index.php/JBEM/article/view/15399.
- [7] A. Gozali, Employee psychological analysis: communication, self esteem, and self efficacy, AKADEMIK: J. Mahas. Hum. 2 (3) (2022) 111–119. Retrieved from, https://ojs.pseb.or.id/index.php/jmh/article/view/475.
- [8] H. Haroon, H.D. Malik, The impact of organizational communication on organizational performance, J. Res. Soc. Sci. 6 (2) (2018) 140-151.
- [9] J. Dee, L. Leisyte, Knowledge sharing and organizational change in higher education, Learn. Organ. 24 (5) (2017) 355-365.
- [10] M. Suzuki, N. Ando, H. Nishikawa, Intra-organizational communication and its consequences, Manag. Decis. 57 (1) (2019) 71–85.
- [11] E.H. Mckinney, J.R. Barker, D.R. Smith, K.J. Davis, The role of communication values in swift starting action teams: IT insights from flight crew experience, J. Inf. Manag. 41 (8) (2004) 1043–1056.
- [12] S. Ramadanty, H. Martinus, Organizational communication: communication and motivation in the workplace, Humaniora 7 (1) (2016) 77-86.
- [13] H. Lannes, Effect of organizational communication on organizational climate and organizational effectiveness. The undergraduate, J. Psychol. (2021).
- [14] A. Sadia, B.M. Salleh, Z.A. Kadir, S. Sanif, The relationship between organizational communication and employees productivity with new dimensions of effective communication flow, J. Bus. Soc. Rev. Emerg. Econ. 2 (2) (2016) 93–100.
- [15] S. DuHadway, S. Carnovale, V.R. Kannan, Organizational communication and individual behavior: implications for supply chain risk management, J. Supply Chain Manag. 54 (4) (2018) 3–19.
- [16] E. Hosseini, S. Saeida Ardekani, M. Sabokro, A. Salamzadeh, The study of knowledge employee voice among the knowledge-based companies: the case of an emerging economy, Rev. Gest. 29 (2) (2022) 117–138, https://doi.org/10.1108/REGE-03-2021-0037.
- [17] C.W. Downs, S. DeWine, H.H. Greenbaum, Measures of organizational communication, in: Communication Research Measures, Routledge, 2020, pp. 57–78.
- [18] S. Dolamore, D. Lovell, H. Collins, A. Kline, The role of empathy in organizational communication during times of crisis, Adm. Theor. Prax. 43 (3) (2021) 366–375.
- [19] M. Zito, E. Ingusci, C.G. Cortese, M.L. Giancaspro, A. Manuti, M. Molino, V. Russo, Does the end justify the means? The role of organizational communication among work-from-home employees during the COVID-19 pandemic, Int. J. Environ. Res. Publ. Health 18 (8) (2021) 3933.
- [20] P. Charoensukmongkol, T. Phungsoonthorn, The interaction effect of crisis communication and social support on the emotional exhaustion of university employees during the COVID-19 crisis, Int. J. Bus. Commun. 59 (2) (2022), https://doi.org/10.1177/2329488420953188.
- [21] P. Vrabcová, H. Urbancová, Z. Pacáková, Challenges and changes in internal communication within organizations: the role of transparent communication from the top, in: Hradecke Ekonomické Dny 2023, 2023 (in print).
- [22] R. Genç, The importance of communication in sustainability & sustainable strategies, Procedia Manuf. 8 (2017) 511–516.
- [23] R.Z. Acosta, A.J. Febles, A. Banaitis, F.A.F. Ferreira, Managing communication and participation in canary islands firms, E&M Econ. Manag. 25 (2) (2022) 75–92, https://doi.org/10.15240/tul/001/2022-2-005.
- [24] L. Chikazhe, E. Nyakunuwa, Promotion of perceived service quality through employee training and empowerment: the mediating role of employee motivation and internal communication, Serv. Manag. Quart. (2022) 294–311, https://doi.org/10.1080/15332969.2021.1992560.

[25] M.A. Jacobs, W. Yu, R. Chavez, The effect of internal communication and employee satisfaction on supply chain integration, Int. J. Prod. Econ. 171 (2016)

- [26] J. De Nobile, J. McCormick, K. Hoekman, Organizational communication and occupational stress in Australian Catholic primary schools, J. Educ. Adm. (2013).
- [27] N. Chawla, A.S. Gabriel, J.J. Dahling, K. Patel, Feedback dynamics are critical to improving performance management systems, Ind. Org. Psychol. 9 (2) (2016) 260–266.
- [28] H. Budworth, S. Chummar, Feedback for performance development: a review of current trends, Int. Handbook Evid.-Based Coach. (2022) 337-347.
- [29] S. Ghiyasvandian, A. Sedighiyani, A. Kazemnejad, I. Iranshahi, Relationship between organizational communication satisfaction and organizational commitment in nurses, Iran. J. Med. Ethics History Med. 9 (6) (2017) 20–33.
- [30] P. Mehra, C. Nickerson, Organizational communication and job satisfaction: what role do generational differences play? Int. J. Organ. Anal. (2019).
- [31] A.S. Claeys, V. Cauberghe, Crisis response and crisis timing strategies, two sides of the same coin, Publ. Relat. Rev. 38 (1) (2012) 83-88.
- [32] D.W.J. Hosmer, S. Lemeshow, R.X. Sturdivant, Applied Logistic Regression, John Wiley & Sons, Incorporated, Newark, 2013, p. 90.
- [33] W. Barendsen, A.C. Muß, G. Silvius, Exploring team members' perceptions of internal sustainability communication in sustainable project management, Project Leadership Soc. 2 (2021) 100015, https://doi.org/10.1016/j.plas.2021.100015.
- [34] H. Urbancová, P. Vrabcová, Z. Pacáková, Š. Janků, Top-down internal communication and its importance for the sustainability of agricultural organizations from the perspective of Tomas Bata's management philosophy, PLoS One 18 (9) (2023) e0291087, https://doi.org/10.1371/journal.pone.0291087.
- [35] S.M. Nordin, A.R.A. Rizal, R.A. Rashid, R. Che Omar, U. Priyadi, Incidents and disaster avoidance: the role of communication management and the organizational communication climate in high-risk environments, Sustainability 13 (18) (2021) 10138.
- [36] S.H. Appelbaum, A. Cameron, F. Ensink, J. Hazarika, R. Attir, R. Ezzedine, V. Shekhar, Factors that impact the success of an organizational change: a case study analysis, Ind. Commerc. Train. (2017).
- [37] H. Jiang, R.L. Men, Creating an engaged workforce: the impact of authentic leadership, transparent organizational communication, and work-life enrichment, Commun. Res. 44 (2) (2017) 225–243.
- [38] J. Chen, A. Delfanti, M. Phan, Worker resistance in digital capitalism, Int. J. Commun. 17 (2023) 3891-3898.
- [39] A.T. Verčič, A. Špoljarić, Managing internal communication: how the choice of channels affects internal communication satisfaction, Publ. Relat. Rev. 46 (3) (2020) 101926.
- [40] M. Balaban, L. Simon Paye, D. Savić, J. Herman, The social welfare system in Bata company towns (1920s-1950s), Int. Rev. Soc. Hist. (2022) 1–28, https://doi.org/10.1017/S0020859022000402.