RELATIONSHIPS OF INTERNAL ORGANIZATIONAL COMMUNICATION, PERFORMANCE AND WORK MOTIVATION

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ABSTRACT


Key words: internal organizational communication, work motivation, intrinsic motivation, extrinsic motivation, communication, performance.

Communication is one of successful functioning organization's elements. Many companies' managers comprehended that when communicating effectively, organization can achieve more during a shorter period of time. Current study aimed to determine internal organizational communication, motivation and performance relationships as well as present a model reflecting them. Employees of the same organization participated in the research. 54 employees filled in questionnaire which included Communication Satisfaction Questionnaire, Work Preference Inventory to measure intrinsic and extrinsic motivation, Extended Delft Measurement Kit General Performance subscale. Demographic questions were included as well. After performing data analysis, the study found that only satisfaction with media quality differs in groups according gender. Men were more satisfied with media quality than women. Higher satisfaction with personal feedback and communication with a supervisor was related to lower extrinsic motivation. Higher intrinsic motivation was related to higher subjective performance. An internal organizational communication, work motivation and performance model was developed using structural equation modeling.
**Introduction**

An organization can be defined in various ways but from the management perspective the definition always includes pursuing of collective goals (e.g. Clark, Cooren, Cornelissen, Kuhn, 2006). These goals can vary from one organization to another depending on its purpose, members’ motives, society as well as the context in which it functions. Yet all organizations in order to function need to communicate within themselves as well as with the external surroundings. Internal communication attracted the attention of scientists and managers in Europe, USA and Australia about half the century ago and reached its peak of popularity in 1970-1980 (Žibūda, 2007).

A considerable amount of research has linked effective communication practices to organization’s performance outcomes (e.g. Watson Wyatt study, 2005/2006). Yet although it seems unquestionable that communication is important for organization’s functioning and subsequently affects its profit which in individual level relates to employee’s performance, theoretical propositions are not supported by practical findings and there are controversial issues in definitions, measurement as well as the sparse research in the field.

One of the factors, usually related with performance is work motivation. Empirical studies (e.g. Kuvaas, 2006; Katzell, Thompson, 1990) as well practice shows that by increasing employee‘s motivation, his/her performance increases. Many organizations have their own motivation systems developed in order to improve employee work results and consequently the profit of organization. Even if formal motivation system is not applied in organization, usually supervisors communicate with their group members in a way which would foster their motivation to work better. Communication should be one of the factors, related to work motivation and subsequently to performance.

**Communication in the Organization and its Measurement**

Communication is a process that allows organisms to exchange information by several methods (Encyclopedia Britannica, 2008). Organizational communication is a very complex process, which has an encompassing impact on all aspects and components of the organization. It spans communication at the micro, meso, and macro levels; formal and informal communications; internal organizational communication (e.g., newsletters, presentations, strategic communications, work direction, performance reviews, meetings) as well as external communication (public, media, inter-organizational). In this paper I will
address communication that happens inside organization and is called intra-organizational communication.

According to the literature organizational communication has been examined from two perspectives: the process perspective concerning the flow of information and the perception perspective concerning employee perceptions and attitudes (Gray, Laidlaw, 2002). Research on the perception of organizational communication is based on the idea that a person’s cognitive and affective perceptions of the organization will have an impact on his/her behavior in the organization. Therefore if employees are exposed to appropriate communication, favorable organizational outcomes would be expected.

The perception perspective has been investigated empirically using measures of communication satisfaction defined as a “summing up” of an employee’s satisfaction with information flow and relationships with other employees/supervisors (Downs, Hazen, 1977). There were several definitions of communication satisfaction. Thayer (1968) defined it as the personal satisfaction inherent in successfully communicating to someone or in successfully being communicated with. Crino and White (1981) viewed it as an employee’s satisfaction with various aspects of the communication occurring in his/her organization. Yet they all viewed communication as a one-dimensional construct. This idea was challenged by Downs and Hazen (1977). Their research indicates that communication satisfaction is a multidimensional construct. There are eight dimensions included in the communication satisfaction construct. The dimensions are listed below:

1. **Satisfaction with communication climate.** It reflects communication on both: organizational and personal levels. This dimension is about communication in the organization which motivates and stimulates employees to meet organizational goals and makes them identify with the organization. It also includes estimates of whether or not people's attitudes toward communicating are healthy in the organization

2. **Satisfaction with supervisory communication.** It covers both the upward and downward aspects of communicating with supervisors.

3. **Satisfaction with organizational integration.** It reflects the degree to which individuals receive information about their immediate work environment and includes both information received by employees and their opportunities to participate in the unit.

4. **Satisfaction with media quality.** It reflects the helpfulness, clarity, and quantity of information associated with channels such as publications, memos, and meetings.
5. **Satisfaction with horizontal communication.** It shows the extent to which horizontal and informal communication is accurate and free flowing. This factor also includes satisfaction with the activity of the grapevine.

6. **Satisfaction with organizational perspective.** It is the satisfaction with the broadest kinds of information about the organization as a whole such as its goals and performance, notification of changes, and financial standing.

7. **Satisfaction with personal feedback.** It includes the degree to which employees feel that their efforts are recognized, their superiors understand their problems, and the criteria by which they are being judged are fair.

8. **Satisfaction with subordinate communication.** It taps the receptivity of employees to downward communication and their willingness and capability to send good information upward.

Different research methods (e.g. interviews, surveys, analysis of written communication, observations, focus groups etc.) are applied when gathering information about organizational communication. The most common and comprehensive research method used is communication audit (Antonis, 2005; Koning, Jong, 2007). A communication audit is a research method which enables performing of unbiased internal organizational communication analysis, the aim of the latter is to provide information about communication problems in order to improve and make optimal use of internal communication.

After analysis of communication research methods, one of the communication audit instruments - Communication Satisfaction Questionnaire was chosen for this study. Several reasons led to this decision. First of all it’s an easy applicable instrument which does not require special training before using it. It provides a full-scale review of organizational communication taking into consideration employee opinion. The attitudes and perceptions of employees are analyzed therefore this method is the closest to the field of psychology.

It is important not only to gather information about the current communication situation in organization but also to connect it to the end products of organization. One of them, which interest every organization, is its profit that relates closely to performance.

*The Concept of Performance and its Measurement*

First performance measurements were done in 1950 – 1960 in military section in Californiametais (Zimmermann, Stevens, 2006). Work performance measurement is selection, definition and application of criteria, according to which work results will be evaluated, in
in order to get a quantitative expression of work effectiveness and efficiency (Fine and Snyder, 1999).

Ammons (1996) defines performance measurements offering the following measurement categories:

- Workload;
- Efficiency;
- Effectiveness;
- Productivity.

The amount of work performed or services provided is analyzed when talking about workload as performance measure. When using efficiency measure, the ratio of work performed and resources used to do it is evaluated. Measures of effectiveness give information about the quality of work performed or service provided. Productivity includes both work efficiency and workload. A simple way of defining it is to describe it as a ratio between the output (e.g. products, services and activities) and the input (e.g. material, labor, capital and energy) that is used to generate the output (Antikainen, Lappalainen, Lönnqvist, Maksimainen, Reijula, Uusi-Rauva, 2006). Such factors as cost of service, inflation, timeliness, quality, creativity or innovation and other should be taken into consideration when computing total productivity (Thor, 1991).

There is no one sound measure of performance. Some are difficult to measure, others are criticized because of their validity (Kemppila, Lonnqvist, 2003). Despite this, the question of performance and its relationship to organizational variables is analyzed in the literature. One of the relationships, which seem correct intuitively, is communication-performance relationship. Effective communication should result in performance increase.

The Relationship of Communication and Performance

The Relationship of Communication and Performance without mediators

influence. Hellweg and Phillips (1982) reviewed literature analyzing the communication - performance relationship. They concluded that there certainly exists communication – performance link and there is evidence to support it. Authors listed several difficulties in analyzing the results:
The most basic discrepancy in the studies was related to definition of constructs, e.g. some studies defined productivity, other performance. Productivity was conceptualized either as a multidimensional or one-dimensional construct.

The measurement instruments varied in the studies which made it difficult to compare them, e.g. communication satisfaction measures, supervisory communication effectiveness, feedback. Performance was measured with single item scale, calculating ratings of a supervisor, using peer evaluation.

In some studies various types of employees were surveyed (the sample was not homogenous) which might have influenced the results.

Periodic performance measures were taken in only one study.

Both positive and negative aspects of organizational communication were examined only in two studies.

Although the communication – performance relationship certainly exists there is no clear answer to what the nature of it is. Some researched suggest that the relationship might be “U” shape. Others propose that there are moderating variables affecting the relation.

More studies analyzing communication- performance relationship were made after the review of Hellweg and Phillips (1982). One of them is made by Goris, Vaught, Pettit, JR (2000). They found that lateral communication was a week predictor of both job quantity and overall job performance. Downward communication acted as a moderator on the prediction of job quantity and overall performance. In the same study, published earlier, the following significant correlations were found: overall performance and trust in superiors (r=0.21, p<0.01), overall performance and influence of superiors (r=0.22, p<0.01), overall performance and accuracy of information (r=0.15, p<0.01), overall performance and communication satisfaction (r=0.12, p<0.05) (Pettit, Goris, Vaught, 1997).

A classical study of communication – performance relationship is made by Pincus (1986). The sample consisted of 327 professional nurses in United States. The communication satisfaction/job performance relationship was found to be generally positive, yet weak. The global measures of communication satisfaction and job performance had a 0.13 correlation (p=0.03). Only two of the nine dimensions of communication satisfaction (supervisor communication and personal feedback) were significantly correlated with global job performance for all nurses.
Clampitt and Downs (1993) investigated employees’ perceptions of the impact of Communication Satisfaction subscales on their productivity. Although communication was perceived to have an "above average" impact on productivity, the impact differentiated depending on the subscale. Communication with co-workers, meetings and memos (Media Quality), and corporate-wide information had relatively low impacts on productivity. Just because an individual was dissatisfied with a particular area of communication did not imply that this area affected his or her productivity adversely. Feedback impacted productivity scores in different ways: employees more highly rated by their supervisors on productivity, tended to believe that Personal Feedback had less impact on their productivity. Yet, individuals rated lower in productivity felt that feedback had a relatively greater effect on their productivity.

Although some studies find a week relationship between communication and performance, these findings are not consistent. Lewis, Long, Cummings (1981) investigated communication role relation with productivity. They analyzed task and person communication roles (when an individual is a producer or consumer of symbols, the content of which is about work versus the role in which the content is about non task concerns). Task and person communication roles as measured by communication role usage were significant predictors of productivity in the small business firm (person role r=0,40, task role r=0,52, p<0,05). Task and person communication roles as measured by proportion of time in role were significant predictors of productivity in the small business firms (task role r=0,63, person role r=0,64, p<0,05).

Summarizing, empirical evidence is weak and vague regarding why, when, and under what circumstances certain types of communication positively affect job performance. Perhaps because of varying methodologies and definitions, the results are often mixed (Pincus, 1986). Some authors suggest that there might be organizational variables which mediate the communication- performance relationship (Hellweg, Phillips, 1982; Pettit, Goris, Vaught, 1997; Clampitt, Downs, 1993).

**Communication - Performance Model.** Huseman, Hatfield, Boulton and Gatewood (1980) investigated communication – performance relationship. As a result of the research and previous studies review authors suggested a model, explaining communication – performance relationship (figure 1):
The moderating variables are only illustrative and quite tentative, since they have no definitive empirical support (Huseman, Hatfield, Boulton, Gatewood, 1980). The performance variables are intended to be definitive as well.

**Motivation as a Moderator in Communication – Performance Relationship.**

Proposition of motivation as communication – performance moderator emerges from several sources:

- Formal reward system is one of the organizational variables moderating communication – performance relationship in the communication – performance model (Huseman, Hatfield, Boulton, Gatewood, 1980);

- Findings of previous studies show that the link between communication and performance is not as simple as it was thought before which implies the possibility of moderating variables (O'Reilly, Anderson, 1980; Hellweg, Phillips, 1982, Clampitt, Downs, 1993);

- Variables which differentially affect performance and communication become potential moderators of communication – performance relationships (Pettit, Goris, Vaught, 1997). Previous studies showed link between motivation and performance (e.g. Selden, Brewer, 2000) as well as communication and motivation (e.g. Orpen, 1997).

- Some of motivation theories emphasize the importance of feedback which is a part of internal organization communication, e.g. goal setting theory predicts that without feedback goals will have little or no impact on subsequent performance (Locke 2001). Feedback does not improve performance directly; rather, it serves as an essential condition for goal setting to work.

Selden and Brewer (2000) surveyed 2472 senior executives from the U.S. Federal Government Employees. It was found that contingent rewards have significant positive influence on performance. Feedback has a significant and positive influence on
individual performance. The provision of supervisory feedback appears to moderate the linkage between goals and high performance.

Other reviews of the literature state that empirical studies on various motivation theories typically account for less than 20% of the variance in output, although the prediction of turnover is a bit higher (Katzell, Thompson, 1990). The positive relationships (r=0.32; p<0.001) was found between intrinsic motivation and self-reported work performance in a knowledge workers’ sample (Kuvaas, 2006). The relationship between feedback and motivation has been found in the sample of 267 public sector employees with r=0.22, p<0.05 (Wright, 2004). Positive relation of communication effectiveness and work motivation was significant in managers’ sample in UK (Orpen, 1997).

After reviewing the existing literature on the communication – performance relationship and the moderating effect of motivation one can see that the evidence of the relationship is ambiguous (varying from medium to week). The research in the area is sparse, mostly investigating part of communication (e.g. feedback, communication roles). Although motivation theories support the idea that communication should be related to motivation which subsequently should be related to performance (e.g. motivation by goal setting (Locke, 2001)) as well as the are references about possibility of moderators in previous research (e.g. O'Reilly, Anderson, 1980; Hellweg, Phillips, 1982, Clampitt, Downs, 1993) there is no sound support for this assumption yet. There might be several reasons to that: there is no one agreeable definition of communication construct, the measures of communication as well as performance are very different, there is no one sound measure of performance.

Aim, Objectives and Hypotheses

The aim of this study was to analyze the relationship between internal organizational communication and performance, to determine, which aspects of internal organizational communication are related to performance, and whether work motivation moderates these relationships.

In order to achieve this aim, the following objectives had to be fulfilled:

1. to analyze internal organizational communication aspects in the sample;
2. to analyze work motivation aspects in the sample;
3. to analyze performance aspects in the sample;
4. to analyze internal organizational communication, work motivation and performance relationships;
5. to determine motivation effect on job performance in internal organizational communication, work motivation and performance model.

The following three main hypotheses are proposed:

1. Higher satisfaction with internal organizational communication is related to higher subjective performance.
2. Higher satisfaction with internal organizational communication is related to higher work motivation:
3. Higher work motivation is related to higher subjective performance.
4. Theoretical model of internal organizational communication, work motivation and performance explains the data.

Study Sample and Procedure

As internal organizational communication might be influenced by various organizational factors (e.g. organization type: private or public sector organization; organization’s structure, hierarchy levels, etc.) in order to minimize their influence one company’s employees were chosen for the current study. A private sector company having 73 employees agreed to take part in the study. Data collection took part in an organization during its working hours. Questionnaires were given to employees to fill in. Total of 55 questionnaires were filled in and returned. The rest of employees were either on holiday/maternity leave or did not want to participate in the study.

The sample consists of 29 males and 25 females. The average age of participants is 25.76 years (st. dev. 6.91). The youngest participants are 18 years old, and the oldest is 57 years old. The average time worked in the company is 6.56 months (st. dev. 1.61) with minimum of 2 months worked and maximum 12 months worked. Forty one participants have secondary education and 12 participants have university education.

Methods

The following factors were measured:

1. Satisfaction with internal organizational communication.
2. Work motivation.
Satisfaction with internal organizational communication. Downs and Hazen (1977) Communication Satisfaction Questionnaire was translated into Swedish for current study. It measures eight dimensions reflecting employee’s understanding of the communication in organization. Dimensions are: satisfaction with communication climate, satisfaction with superiors, satisfaction with organizational integration, satisfaction with media quality, satisfaction with horizontal and informal communication, satisfaction with organizational perspective, satisfaction with subordinates, satisfaction with personal feedback. Definition of each dimension has been presented earlier in chapter Communication in the Organization and its Measurement.

Respondents had to mark one answer, best describing their satisfaction with certain aspect of communication. A Licker type scale from 1 meaning “very satisfied” to 7 meaning “very dissatisfied” was used. Using authors’ key, ratings of every communication satisfaction dimension were calculated. Only seven out of eight subscales were used. Communication satisfaction with subordinates was excluded because it would have to be completed only by those in supervising position the number of which would be too small for statistical analysis. Scale is reliable (Cronbach’s alpha 0.95). Examples of items and reliability of each subscale is presented in Appendix A.

Work motivation. Extrinsic and Intrinsic motivation was measured using Work Preference Inventory (Amabile, Hill, Hennessey, Tighe, 1994) working adult version translated into Swedish. This inventory is one of the most often used work motivation measures (Mayer, Faber, Xiaoyan, 2007). Work motivation relates to employee’s efforts to work well and a lot, in other words, with arousal of effort, direction and persistence in putting effort in work situations. Intrinsic motivation is the force that motivates to do work because of work itself, for example because work is interesting, giving satisfaction, etc. Extrinsic motivation is a response to something, except work itself, for example, rewards, recognition or orders of other persons. Ratings of both subscales were calculated using authors’ key. Examples of items and reliability of each subscale is presented in Appendix A. Reliability of Extrinsic motivation was low therefore some items were removed in order to increase it. Extrinsic motivation subscale for the current study comprises of 7 items.

Performance. Extended Delft Measurement Kit’s (Roe, Zinovieva, Dienes, Ten Horn, 2000) General Performance subscale translated into Swedish was used in the current study. Ratings of subscale were calculated using authors’ key. Examples of items and reliability of subscale is presented in Appendix A.
Results

Results of the current study will be presented according to the above mentioned objectives. After performing descriptive analysis of results, one study participant’s results were removed from further analysis due to the extreme scores. Therefore a total sample of 54 participants were included in statistical analysis.

**Internal organizational communication aspects.** The overall rating of every communication satisfaction subscale was 35. After reviewing participants’ satisfaction with different aspects of internal organizational communication, the results showed that participants were satisfied with communication with their direct supervisor the most (mean 25.76, st. dev. 5.63). The second highest satisfaction scores were those of informal communication (mean 24.22, st. dev. 3.78). Employees the least satisfied were with personal feedback (mean 21.06, st.dev. 5.15) as well as organizational integration (mean 21.56, st. dev. 5.12).

![Organizational Communication Satisfaction](image)

Figure 2. Employee satisfaction with different aspects of internal organizational communication.

**Work motivation aspects.** Employee intrinsic and extrinsic motivations were measured in the current study. The overall rating of intrinsic motivation subscale was 60. The overall rating of extrinsic motivation subscale was 28. Mean of extrinsic motivation ratings in the sample is 18.02 (st. dev. 3.48). Mean of intrinsic motivation ratings is 46.19 (st. dev. 5.30). A relationship of intrinsic and extrinsic motivation was tested using Pearson correlations. Higher ratings of intrinsic motivation were related to higher ratings of extrinsic motivation (r=0.275, p=0.044).
Performance aspects. Employee performance was measured by calculating employee self ratings of their subjective performance. The highest possible rating, meaning the best self reported performance is 40. The average performance score in the sample was 28.87 (st. dev. 3.71). The highest score in the sample was 38 and the lowest 20.

When checked if there were any differences of self reported performance, employee motivation and satisfaction with different aspects of internal organizational communication in groups according to gender and education, there were no statistical significant differences found. The only statistical significant difference found was that men were more satisfied with media quality than women (t= 2.195, df= 52, p= 0.033). Mean of satisfaction with media quality in men’ group was 24.55 (st. dev. 4.032), and in women’ group 22.08 (st. dev. 4.232). There were no statistical significant relationships between self reported performance, employee motivation or satisfaction with different aspects of internal organizational communication and participant’s age as well as time worked in the company. Therefore it is possible to draw a conclusion that the study sample is homogenous in reference to self reported performance, employee motivation and satisfaction with different aspects of internal organizational communication.

Internal organizational communication, work motivation and performance relationships. The first hypothesis was if higher satisfaction with internal organizational communication is related to higher subjective performance. There were no statistically significant relationships found. The first hypothesis was not confirmed.

In the second hypothesis it was hypothesized that higher satisfaction with internal organizational communication was related to higher work motivation. After analyzing of the data two statistically significant relationships were found: higher satisfaction with personal feedback was related to lower extrinsic motivation (r=-0.29, p=0.032) and higher satisfaction with communication with a supervisor was related to lower extrinsic motivation (r=-0.41, p=0.002). The second hypothesis was not confirmed, the relationship was the opposite than it was expected to be.

The third hypothesis stated that higher work motivation is related to higher subjective performance. Data analysis showed that higher intrinsic motivation was related to higher subjective performance (r=0.33, p=0.015). The third hypothesis was confirmed only partly.
**Internal organizational communication, work motivation and performance model.** In order to fulfill the last objective, it was checked how well the theoretical model of internal organizational communication, work motivation and performance explained the data of current study. Structural Equation Modeling as well as statistical program AMOS16.0 were used so that it would be determined if motivation has a direct or mediated effect on the relationship between internal organizational communication and performance. Structural Equation Modeling is based on the path analysis. This method, although it does not confirm causal relationships, enables us to detect hypothetic causal relationships.

Based on earlier studies on communication – performance relationship, theoretical Communication - Performance Model, proposed by Huseman and colleagues (1980), the relationships presented in the initial internal organizational communication, work motivation and performance model were analyzed (Appendix B). One of the satisfaction with internal organizational communication dimensions – satisfaction with media quality was not included in the model for three reasons: firstly, as the sample size of the current study was small, it is better to have less variables in the model in order to achieve more precise conclusions; secondly, satisfaction with media quality was the least related to performance and motivation when analyzing its relations separately; thirdly, the structure of organization where every employee was easily reached within one building as well as quite informal and friendly communication atmosphere, observed during data collection, lead to assumption that media (e.g. written announcements) would not pay that crucial role in the organization’s functioning.

According to the model fit indices, the current model explains the data: $\chi^2(6) = 2.94, p=0.817$; root mean square error of approximation [RMSEA] = 0.00; comparative fit index [CFI] = 1.00; The Bentler-Bonett normed fit index [NFI] = 0.99.

The next step was to examine if all of the links in the model were significant and in order to simplify the model, to remove the non-significant links. After removing non-significant links in the model, a final internal organizational communication, work motivation and performance model was developed. (Appendix C). Self reported performance, extrinsic and intrinsic motivation are observed endogenous variables. Satisfaction with organizational integration, communication climate and communication with a supervisor are observed exogenous variables. Variables e1, e2 and e3 are unobserved exogenous variables (error variables). According to the model fit indices, a final internal organizational communication, work motivation and performance model explained the data well: $\chi^2(6) = 3.33, p=0.767$; root
mean square error of approximation [RMSEA] = 0.00; comparative fit index [CFI] = 1.00; The Bentler-Bonett normed fit index [NFI] = 0.975.

After further analyses of the results it was found that the strongest relationship was between intrinsic motivation and satisfaction with communication with a supervisor. When satisfaction with communication with a supervisor goes up by 1 standard deviation, intrinsic motivation goes up by 0.702 standard deviations. Yet when satisfaction with communication with a supervisor goes up by 1 standard deviation, extrinsic motivation goes down by 0.669 standard deviations. One more negative relationship was between satisfaction with organizational integration and intrinsic motivation: when satisfaction with organizational integration goes up by 1 standard deviation, intrinsic motivation goes down by 0.521 standard deviations. The weakest relationship was between intrinsic motivation and self reported performance: when intrinsic motivation goes up by 1 standard deviation, self reported performance goes up by 0.324 standard deviations (Appendix D, table 1).

It was estimated that the predictors of extrinsic motivation (satisfaction with communication climate and communication with a supervisor) explained 23.6 percent of its variance. The predictors of intrinsic motivation (satisfaction with organizational integration, satisfaction with communication with a supervisor, extrinsic motivation and indirectly satisfaction with communication climate) explained 27 percent of its variance. The predictors of self reported performance (intrinsic motivation and indirectly extrinsic motivation, satisfaction with organizational integration, communication with a supervisor, communication climate) explained 10.5 percent of its variance.

Intrinsic motivation had the greatest direct as well as total effect on performance out of all predictors of performance (Appendix D, table 2). When intrinsic motivation goes up by 1 standard deviation, performance goes up by 0.324 standard deviations. The highest indirect effect on performance is of satisfaction with organizational integration. When satisfaction with organizational integration goes up by 1 standard deviation, performance goes down by 0.169 standard deviations.

Concluding, the fifth hypothesis was confirmed partly. A modified theoretical model of internal organizational communication, work motivation and performance can be used to explain the data. Yet this is only one of the models that can explain the data. There might be other models as well as there might be other variables included in the model to better explain the relationships of internal organizational communication, work motivation and performance. Further studies are needed to improve the model.
Discussion

Aspects of internal organizational communication, motivation and performance. After comparisons of internal organizational communication in groups according to age, time worked in the company and gender there was only one statistical significant difference found: men were more satisfied with media quality than women. Earlier studies usually did not report differences in satisfaction with internal organizational communication according to age and gender (e.g. Clampitt, Downs, 2004; Walter, 1988). Yet Reyes (1992) found that there were some gender differences in analyzing data in groups according to gender. Satisfaction with communication of male teachers was related with time worked as a teacher as well as the qualifications and degrees in the work field. Female teachers’ communication satisfaction was related only with the time worked as a teacher.

Similar satisfaction with internal organizational communication in groups according to age and time worked in the company might be due to the specific study sample. The company was established not long ago and all the employees worked less than half a year in the company. Also most of the employees were younger than 30 years old. It might be that in the sample of participants with more varying individual characteristics differences in satisfaction with different aspects of internal organizational communication could be found.

It was found contrary to what was hypothesized that higher satisfaction with personal feedback was related to lower extrinsic motivation, and higher satisfaction with communication with a supervisor was related to lower extrinsic motivation. These findings contradict Wright’s (2004) results where a positive relationship was found between personal feedback and motivation. A positive relationship between communication efficiency and work motivation was found in the study of Orpen (1997). Yet there is one study which found a negative relationship between communication and self reported performance (Rodwell, Kienzle ir Shadur, 1998). Authors explained their results with the assumption that when the communication is more intense and precise, employees are more informed and have more possibilities to communicate with supervisors, they might have a better understanding of their own work impact on the results of all organization. They could get disappointed that this impact is a relatively small which in turn would decrease their motivation and as well their self reported performance. This assumption could explain the results of the current study. The other explanation could be specific to the company and the data which was collected. This company did not have any official motivation system; all employees were paid stable salaries which did not depend on their performance directly. Therefore, as employees do not get
external motivators for their better work, they might lessen the importance of external reasons for working better and instead make internal reasons more important (such as enjoying the work, the work atmosphere, company of people they work with, etc.).

The third hypothesis was confirmed. Higher intrinsic motivation was related to higher subjective performance. These results confirm previous findings. Kuvaas (2006) found that intrinsic motivation of knowledge workers is positively related to self reported performance. The relationship between intrinsic motivation and subjective performance in the current study as well as in Kuvaas (2006) study is a week one. It seems that other factors might be significant in this relationship, such as the employee’s working skills, knowledge about job, availability of the material needed for a job to perform, etc.

**The internal organizational communication, work motivation and performance model.** In order to give a more comprehensive understanding of the relationships between the above mentioned factors and performance, as well as, only hypothetically confirm the direction of these relationships, a structural internal organizational communication, work motivation and performance model was proposed. After the data analysis, the model was modified.

Such factors as satisfaction with organizational perspective, personal feedback, informal and horizontal communication and media quality were removed from the initial model as non-significant. The relationship between extrinsic motivation and performance was also removed as non-significant. The relationship between extrinsic motivation and satisfaction with organizational integration as well as relationship between satisfaction with communication climate and intrinsic motivation were removed. The model was complemented with the link between satisfaction with organizational integration and subjective performance. This link agrees with the existing literature findings that there might be a direct link between internal organizational communication and performance (e.g. Pettit, Goris & Vaught, 1997; Lewis, Long & Cummings, 1981).

A simplified internal organizational communication, work motivation and subjective performance model, presented in current study, is only one of possible models, explaining the relationship between communication, motivation and performance. Other, not less correct models might exist.

The results of the current study support previous findings of the relationship between motivation and performance. Usually work motivation explains less that twenty percent of the performance (Katzell & Thompson, 1990). Our findings correspond with this
statement. Other factors, such as employee’s knowledge, skills, experience, work conditions and availability of devices might be important.

The final internal organizational communication, work motivation and subjective performance model partly confirmed the hypothesis that motivation moderates the relationship between internal organizational communication and performance: there is a direct link between satisfaction with organizational integration and subjective performance, as well as there are indirect links between several aspects of internal organizational communication (organizational integration, communication climate and communication with a supervisor) and performance via intrinsic or/and extrinsic motivation. Some of the relationships (link between satisfaction with organizational integration and extrinsic as well as intrinsic motivation and link between satisfaction with communication with a supervisor and extrinsic motivation) are of the opposite direction as it was hypothesized. Yet it does not mean that if an employee becomes less satisfied with these aspects of internal organizational communication, his/her motivation and performance would increase. These links would rather show the unused areas for the organization to improve employee performance. It might be that employees get precise and sufficient information about their immediate work environment (e.g. personnel news, departmental policies and plans, requirements of their job, etc.) but the way this information is presented does not increase the performance of the employee. For example, the employee might know that one of the plans for the department is to increase the return up to a certain percent, he/she would know his job requirements but he would not see how the increase of company’s profit would reflect on his/her own wages or any benefits he/she gets as the employee also knows that his/her monthly salary is stable. Therefore although the employee is satisfied with the information he gets, it does not play the role in motivating him/her but, on the contrary, demotivates him/her. This idea is reflected in the negative relationship of satisfaction with communication with a supervisor. Although employees are satisfied with the amount of attention and supervision from their supervisor, they see their supervisor as open to suggestions and new ideas from employees, yet they do not feel motivated externally by this. The most frequent answer to the question “how satisfied are you with recognition of your efforts” was “neither satisfied, not dissatisfied”. As there are no official means in the organization to provide external rewards, employees tend to lessen the importance of them. Yet they compensate this lack of external rewards with internal motivation. Satisfaction with communication with a supervisor is positively linked to intrinsic motivation. It seems that good communication with a supervisor makes work itself pleasant and motivating for better performance. This idea is reflected in a positive relationship
between motivation and communication climate as well as high satisfaction with informal and horizontal communication. The positive communication atmosphere in an organization makes work itself more appealing, in this way increasing motivation and subsequently performance.

Summarizing, the internal organizational communication, motivation and performance model was partially confirmed. Not all of the internal organizational communication aspects were significant in this model. Some of the links were not in the same direction as it was hypothesized. Although the final internal organizational communication, work motivation and subjective performance model can be used to explain the data of the current study, yet it should be improved in further studies and the relationships that were not significant in this study, should not be removed in further studies. Such factors as organization’s management structure, work characteristics and other, specific to the organization, factors might have determined the importance of the above mentioned aspects of internal organizational communication to performance. Yet in other types of organizations different patterns might show up.

Recommendations

Practical Recommendations

1. Data analysis showed that the areas of least satisfaction with communication are satisfaction with communication climate and organizational integration. Internal organizational communication, motivation and performance model also showed that these two areas of communication are related to employee performance. Therefore it would be useful to target these two areas and make strategies of their improvement. Employees should get more information about their progress at work in comparison to their previous work results. This information should be presented in the way that employees could see that their work is important for a company and that they can contribute to the department’s goal fulfillment. The information they get should not make them feel as just one little part in a huge mechanism of organization where they only have to perform automatic tasks, on the contrary they should feel that their individual contribution is important.

2. Negative relationships between satisfaction with organizational integration and intrinsic motivation as well as satisfaction with communication with a supervisor and extrinsic motivation were found. They can be possibilities for an organization to improve employee performance. Seems that employees are quite indifferent about information about their
immediate work environment, the most frequent answers to some items were either “a little dissatisfied” or “neither satisfied, nor dissatisfied”. By improving communication about immediate work environment and especially making employees care about it, the motivation should increase and a positive relationship should occur. It is important to cause a feeling in employee that organization’s/department’s goals are connected with his/her personal goals and can help their fulfillment. It’s not enough only to give the information to the employees, hoping that they will make necessary connections but rather to help them to make connections between benefits of organization (e.g. increase of profit) and personal benefits for employee. Supervisors could be the agents who help to make these connections, raise and sustain the feeling that employee and organization work together, it is one team rather than two distinct poles of “employees” versus “employer”.

It would be useful to connect the progress of employee performance with external reward system. It might be that in current situation employees follow the rule “don’t work too badly if you do not want to be fired”. It should be changed to the message “work better than you do now if you want to be rewarded.” Special criteria for performance progress should be identified, described and used in the evaluation. One of the ways could be 180 degree feedback or its modifications.

**Recommendations for further studies**

1. The internal organizational communication, work motivation and performance model, proposed in current study, should be modified and improved in further studies. Huseman and colleagues (1980) suggested that individual, group and organizational variables moderate the relationship between communication and performance. In current study it was also found that there are significant differences in satisfaction with media quality between men and women. Although there were no statistical significant relationships found between employee’s age, time worked in the company and satisfaction with internal organizational communication aspects, it might be due to the fact that organization investigated is young and all employees worked less than a year, also most of employees are young. It would be interesting to investigate additional variables (e.g organization’s size, organization’s structure, time worked in the company, task characteristics, etc.), proposed by Huseman and colleagues (1980) and their moderating effect. More than one organization’s data should be combined and analyzed in further research in order to increase the sample size.
2. It would be useful to repeat current study in a similar type organization and check if the same relationships would be found and model explain the new data or maybe the relationship of internal organizational communication, motivation and performance is a very specific phenomenon characteristic only for particular organization and there could not be a general model identified.

3. One of the further study areas of interest could be analysis of internal organizational communication and objective performance, if different aspects of communication are important to objective performance comparing to subjective (self rated) performance. It would also be useful to analyze how these relationships change in time: if we measure communication satisfaction and compare objective performance ratings of the last month, last half a year, etc. would the relationship change (become stronger or weaker depending on time). It would answer the question how long lasting is the effect of communication on performance.

4. Only hypothetical causal relationships were detected in the current study’s model. The structural equation modeling does not enable to talk about causal relationships. It might be that performance affects communication or there is a cycle in which communication, motivation and performance influence each other. Further studies are needed to determine the direction and causality of these relationships e.g. measuring satisfaction with internal organizational communication and performance in a work group, making interventions in order to improve some aspects of communication and again measuring the level of satisfaction with communication as well as performance. These results could be compared to another (control) group.

5. As today’s organizational structure tends to change, become flatter, net structures become more popular where different offices are localized in geographically distant areas, it would be useful to analyze one more aspect of internal organizational communication – communication among different departments of organization. A new version of Communication Satisfaction Questionnaire which includes the above mentioned aspect could be used in further research.
LITERATURE


## APPENDIX A

Measurement instruments and their reliability.

<table>
<thead>
<tr>
<th>Scale</th>
<th>Rating levels</th>
<th>Subscale</th>
<th>Cronbach's alpha</th>
<th>Number of items</th>
<th>Example of an item</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Communication Satisfaction Questionnaire (Downs, Hazen, 1977)</strong></td>
<td>From 1 (&quot;very dissatisfied&quot;) to 7 (&quot;very satisfied&quot;)</td>
<td>Satisfaction with communication climate</td>
<td>0,80</td>
<td>5</td>
<td>Extent to which organization’s communication motivates me to meet its goals. / I vilken utsträckning motiverar företaget dig att nå dina mål?</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Satisfaction with superiors</td>
<td>0,89</td>
<td>5</td>
<td>Extent to which my supervisor listens and pays attention to me. / I vilken utsträckning ger din chef dig uppmärksamhet och lyssnar på dig?</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Satisfaction with organizational integration</td>
<td>0,79</td>
<td>5</td>
<td>Information about departmental policies and goals. / Hur nöjd är du med information om avdelningens framtidsplaner och mål?</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Satisfaction with media quality</td>
<td>7,7</td>
<td>5</td>
<td>Extent to which our meetings are well organized. / I vilken utsträckning är mötena välorganiserade?</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Satisfaction with horizontal and informal communication</td>
<td>0,65</td>
<td>5</td>
<td>Extent to which informal communication is active and accurate. / I vilken utsträckning är den informella kommunikationen aktiv och korrekt?</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Satisfaction with organizational perspective</td>
<td>0,83</td>
<td>5</td>
<td>Information about achievements and/or failures of the organization. / Hur nöjd är du med information om fram- och motgångar för organisationen?</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Satisfaction with personal feedback</td>
<td>0,81</td>
<td>5</td>
<td>Information about how I am being judged. / Hur nöjd är du med information om hur du blir bedömd?</td>
</tr>
<tr>
<td><strong>Work Preference inventory (Amabile, Hill, Hennessey, Tighe, 1994)</strong></td>
<td>From 1 (&quot;never or almost never true&quot;) to 4 (&quot;Always or almost always true&quot;)</td>
<td>Intrinsic scale</td>
<td>0,73</td>
<td>15</td>
<td>I prefer to figure out things for myself. / Jag föredrar att lista ut saker på egen hand</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Extrinsic scale</td>
<td><strong>0,51</strong> (after modification 0,67)</td>
<td>15 (after modification 7)</td>
<td>I have to feel that I am earning something for what I do. / Jag måste känn att jag tjänar någotning (t.ex. pengar, befordran, respekt etc.) på vad jag gör.</td>
</tr>
<tr>
<td><strong>Extended Delft Measurement Kit (Roe, Zinovieva, Dienes, Ten Horn, 2000)</strong></td>
<td>From 1 (&quot;always true&quot;) to 5 (&quot;never true&quot;)</td>
<td>General performance</td>
<td>0,73</td>
<td>8</td>
<td>I think I deserve a very good evaluation by my boss. / Jag tycker att jag förtjänar en väldigt bra utvärdering av min chef</td>
</tr>
</tbody>
</table>
Initial internal organizational communication, work motivation and performance model.
APPENDIX C

Results of a final internal organizational communication, work motivation and performance model.

Note: numbers above two-way arrows – covariances, numbers above variables (organizational integration, communication climate, communication with a supervisor) – variances, numbers besides one-way arrows – regression weights, numbers above variables marked with circles (e1, e2 and e3) – variances.
### APPENDIX D

**Table 1. Relationships in the final internal organizational communication, work motivation and performance model.**

<table>
<thead>
<tr>
<th></th>
<th>Regression weight</th>
<th>St.error</th>
<th>Critical Ratio</th>
<th>P</th>
<th>Standartized regression weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extrinsic motivation &lt;--- Communication with a supervisor</td>
<td>-0.41</td>
<td>0.10</td>
<td>-3.96</td>
<td>***</td>
<td>-0.67</td>
</tr>
<tr>
<td>Extrinsic motivation &lt;--- Communication climate</td>
<td>0.29</td>
<td>0.13</td>
<td>2.21</td>
<td>0.027</td>
<td>0.37</td>
</tr>
<tr>
<td>Intrinsic motivation &lt;--- Extrinsic motivation</td>
<td>0.65</td>
<td>0.19</td>
<td>3.31</td>
<td>***</td>
<td>0.43</td>
</tr>
<tr>
<td>Intrinsic motivation &lt;--- Organizational integration</td>
<td>-0.53</td>
<td>0.17</td>
<td>-3.11</td>
<td>0.002</td>
<td>-0.52</td>
</tr>
<tr>
<td>Intrinsic motivation &lt;--- Communication with a supervisor</td>
<td>0.65</td>
<td>0.17</td>
<td>3.89</td>
<td>***</td>
<td>0.70</td>
</tr>
<tr>
<td>Self reported performance &lt;--- Intrinsic motivation</td>
<td>0.23</td>
<td>0.09</td>
<td>2.49</td>
<td>0.013</td>
<td>0.32</td>
</tr>
</tbody>
</table>

*Note: *** p<.001. Indicates significant greater than chance relationship.*

**Table 2. Standartized, direct and indirect effects of predictors in the final internal organizational communication, work motivation and performance model.**

<table>
<thead>
<tr>
<th></th>
<th>Communication climate</th>
<th>Organizational integration</th>
<th>Communication with a supervisor</th>
<th>Extrinsic motivation</th>
<th>Intrinsic motivation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extrinsic motivation</td>
<td>0.37</td>
<td>0.00</td>
<td>-0.67</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Intrinsic motivation</td>
<td>0.16</td>
<td>-0.52</td>
<td>0.41</td>
<td>0.43</td>
<td>0.00</td>
</tr>
<tr>
<td>Performance</td>
<td>0.05</td>
<td>-0.17</td>
<td>0.13</td>
<td>0.14</td>
<td>0.32</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Communication climate</th>
<th>Organizational integration</th>
<th>Communication with a supervisor</th>
<th>Extrinsic motivation</th>
<th>Intrinsic motivation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extrinsic motivation</td>
<td>0.37</td>
<td>0.00</td>
<td>-0.67</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Intrinsic motivation</td>
<td>0.00</td>
<td>-0.52</td>
<td>0.70</td>
<td>0.43</td>
<td>0.00</td>
</tr>
<tr>
<td>Performance</td>
<td>0.00</td>
<td>0.00</td>
<td>0.000</td>
<td>0.00</td>
<td>0.32</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Communication climate</th>
<th>Organizational integration</th>
<th>Communication with a supervisor</th>
<th>Extrinsic motivation</th>
<th>Intrinsic motivation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extrinsic motivation</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Intrinsic motivation</td>
<td>0.16</td>
<td>0.00</td>
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<td>0.00</td>
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<tr>
<td>Performance</td>
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<td>-0.17</td>
<td>0.13</td>
<td>0.14</td>
<td>0.00</td>
</tr>
</tbody>
</table>