

Information and Communications Technologies as a Driver of Effective Internal Communication

Alen Kišić

University of Zagreb, CROATIA Faculty of Organization and Informatics

Received: 2 October 2020 • Accepted: 19 November 2020 • Published Online: 1 December 2020

Abstract

Internal communication is considered to be fundamental process for organization. The information and communication technology (ICT) has been a strong trigger of organizational change in every aspect, as well as in internal communication. This paper investigates ICT tools usage effects on internal communication. Three research hypothesis were set up: (i) employees' perceived importance of internal communication has a relationship with their ICT usage, (ii) employees' perceived quality of internal communication has a relationship with their ICT usage, and (iii) ICT tools usage contributes to the perceived impact of IT on informing, motivation, productivity, loyalty, organizational development understanding, reducing rumors within organization of employees, willingness to change and overall satisfaction of employees. In order to test hypothesis, data were collected via an online survey conducted among Croatian public relations experts. Data mining was applied in data analysis: including both, descriptive (distributions) and predictive models (Bayesian networks). Sensitivity analysis of Bayesian networks identified significant factors of successful internal communication. Results showed that Skype usage mostly contributed to the quality of internal communication, whereas social network usage mostly contributed to the perceived importance of internal communication. Bayesian network model identified e-mail usage as a predictor of employees informing and chat usage as predictor for productivity of employees. Organizations' management should embrace opportunities that new technologies have brought to the field of internal communications and use it as a tool for improvement.

Keywords: public relations, internal communication, information technology, social media.

1. Introduction

Communication is considered to be the core element for organization and management theory (Thompkins, 1987). It is perceived as valuable management (Lachotzki & Noteboom, 2005) and marketing tool (Ahmed & Rafiq, 2002). Internal communication is important part of an organization's communication function. Most of the authors position internal communication as an element of strategic public relations (e.g. Van Riel, 1995; Argenti, 1996). Internal communication represents the basic part by which organization can produce value (Quirke, 2000). "Effective internal communication is crucial for successful organizations as it affects the ability of strategic managers to engage employees and achieve objectives" (Welch & Jackson, 2007). There are numerous definitions of internal communication by various authors are presented in the literature. Frank and Brownell (1989) explain internal communication as "the

© **Authors**. Terms and conditions of Creative Commons Attribution 4.0 International (CC BY 4.0) apply. **Correspondence**: Alen Kišić, University of Zagreb, Faculty of Organization and Informatics, Zagreb, CROATIA. E-mail: kisic.alen@gmail.com.

communications transactions between individuals and/or groups at various levels and in different areas of specialization that are intended to design and redesign organizations, to implement designs, and to co-ordinate day-to-day activities". Despite its importance, communication, as a practice and an independent domain, is in its infancy (Tkalac Vercic & Vercic, 2012). When discussing current issues in internal communication, Tkalac Vercic and Vercic (2012) research pointed out the need to focus on digital-native generation and to investigate the role of new technologies. Indeed, a medium of communication has an important influence in the dissemination of knowledge and it became necessary to study information and communication technology channels in order to investigate its influence on communication. Information and communication technology (ICT) refers to any electronic device or technology that has the ability to gather, store, or send information (Steinmueller, 2000). Previous studies have indicated that information technology can play a pivotal role in the development of internal communication practices. However, there has been limited research concerning internal communication involving ICT tools and their relation to quality of and motivation for communication. The present article contributes to the literature by not only examining the degree and content of internal communication and ICT usage among employees in Croatian companies, but also how specific IT tools are related to internal communication quality.

The paper is structured as follows: in the next part, this work is positioned within existing research literature and research hypothesis were set up. Section 3 explains empirical setup of the study in detailed: survey created in this research and provides a number of descriptive analysis. The Bayesian network procedure is also explained. Next, the results are presented, finally, and a short conclusion is provided.

2. Literature review and research hypothesis

Recent papers indicated the need for this kind of research. Firstly, Karanges et al. (2015) emphasized importance of internal communication by finding strong relationship between internal communication and employee engagement. In the study, King and Lee (2016) proposed a conceptual framework of effective internal communication for the hospitality industry. The focus of their study were social media and they explored suitability of social media as an augmentation to traditional internal communication channels. Results highlighted how social media can augment current internal communication practices in a hospitality organization.

Solomon (2015) examined the relationship between internal communication and organizational performance in terms of quality. His study conducted among pharmaceutical firms found out that, internal communication strategies are facilitating the progress in the pharmaceutical industries. The results suggested that the management or the board of directors should focus on internal communication tools because they are drivers of prosperity (Solomon, 2015).

Harmainen (2014) investigated internal communication and employee commitment in start-up companies. Results indicated statistically significant relationship between internal communication and employee commitment. Sjöberg and Madsen (2014) also proved significance of internal communication on all businesses. Fenech (2013) investigated the employees' needs and preferences of internal communication channels in companies and their with employee commitment. "The main implication of this study was the recommendation that companies invest resources in internal strategy corporate communication (ISCC), because it was preferred by the employees at the case company, it corresponded to their needs and it contributed to their affective commitment" (*Ibid.*, 2013). When discussing current issues in internal communication, Tkalac Vercic, Vercic and Srirames (2012) research pointed out new digital media as emerging field with high level of influence on the way employees communicate within organization. It is important to

investigate internal communication with respect to ICT tools usage. No study in this area has been empirically investigated this relationship.

Based on this reasoning, three hypothesis were set up:

H1: Employees' perceived importance of internal communication has a relationship with their ICT usage.

H2: Employees' perceived quality of internal communication has a relationship with their ICT usage.

H3: ICT tools usage contributes to the perceived impact of IT on informing, motivation, productivity, loyalty, organizational development understanding, reducing rumors within organization of employees, willingness to change and overall satisfaction of employees.

3. Data and methodology

A quantitative research approach was used. The survey was developed and data were collected from a random sample of users. Croatian Public Relations Association (CPRA) database was used. CPRA is a professional association and brings together officials involved in activities related to public relations in order to improve profession and to protect their interests through a variety of activities provided by the Statute of the association (CPRA). Members of association are people who are directly concerned with public relations. So, study included only professionals in the field with the aim to collect their experiences in public relations, with special emphasis on internal communication and ICT in the implementation of internal communication. Association Secretary sent questionnaire to all members with a detailed explanation and request to fill it in order to examine the situation of internal communication in organizations. Given the fact that this study was focused on Croatian companies, for this study, a total population of 200 participants was targeted, professionals in the field of public relations which are members of CPRA. The study included a diverse structure of organizations: small businesses, non-profit institutions, public administrations, educational institutions and nongovernmental organizations.

Collected data were analysed by applying descriptive and predictive modelling. To achieve first objective of the research, distributions were performed. To address second objective, Bayesian networks were created. In the following section, a general introduction to Bayesian networks is presented

Bayesian networks are one of the most popular data analysis methods. The basic concept of Bayesian networks is based on conditional probabilities (Delen, 2015). Bayesian networks are composed of two main elements: (i) direct acyclic graph in which each node represents a random variable, and each link probabilistic dependence, and (ii) tables of conditional probability for each variable. The main characteristic of Bayesian networks is the ability to learn based on probabilistic, directly from sample data. The analyst is responsible for creating a transparent model, which will cover all relevant variables and their relationships. One of the main benefits of Bayesian network is the fact that they are able to predict the likelihood in the absence of specific information.

In this research, sensitivity analysis performed on the Bayesian network models will answer on the questions: whether and to what extent ICT tools contribute to the internal communication.

4. Research findings

The obtained results revealed interesting insights explaining internal communication in the organization and relationship with ICT usage. First, we give profile of the respondents and profile of the organizations they work for, followed by their perception of internal communication in organizations and ICT usage in internal communication.

4.1 Profile of the respondents

Table 1 gives basic characteristics of the respondents: age, gender, level of education and Years of experience in public relations.

Age	20-30	15 %
	31-40	55 %
	41-50	21 %
	More than 51	9 %
Gender	Female	68%
	Male	32%
Education	High school	0%
	VŠS	11%
	VSS	57%
		32%
Years of experience in public relations	0-5	25%
	6-10	53%
	11-15	11%
	More than 16	11%

Table 1. Profile of the respondents

Descriptive statistics provided following results. More than half of respondents are aged 31-40 years. Due to the fact that field of public relations only recently started to gain attention in Croatian organizations and mostly young people were employed, this results are expected. Second question in the survey was related to gender. As seen in Table 1, 68% of respondents are females and 32% were males. Public relations are known among the profession as female dominated field and this study confirmed such state in the Croatian companies. Similar ratio of two thirds to one third in favour of females is also present among all the members of the CPRA. Following question is related to the qualifications of the respondents. According to the results on this sample, the profession of public relations is characterized by a high level of education experts. There are no respondents with only secondary education, and even a third experts in public relations have completed a master's degree or a PhD. In comparison with related industries, this are very competitive results. Furthermore, more than half of respondents have work experience in public relations between 6 and 10 years. Those are professionals who are already well aware of the matter and have enough experience to be relevant subjects. There is an interesting correlation of this variable with the variable age. It is notable that 55% of respondents are aged 31-40 years, almost as the same with percentage of professionals with 6 to 10 years of experience in public relations. This indicates that area of public relations, for the majority of respondents, is first employment and they do not change the job.

4.2 Profile of the organizations

This section describes of the organization whose employees where involved in the study. Table 2 gives profile of organizations.

Table 2. Profile of the organizations

Which industry your	Production	15 %
organization is in?	Service industry	36 %
	Public sector	21 %
	Non-governmental organizations	7 %
	Other	21 %
Size of organization	0-50	30 %
	51-100	11 %
	101-500	25 %
	More than 500	34 %
Does the organization	Yes	53%
have a special department for public relations?	No	47%
If YES, how many people	1-5	61 %
are employed in the	6-10	14 %
department	11-15	11 %
	More than 16	14 %
If NO, where are located	Marketing	36%
public relations?	Human resources	4%
	Office of the Board	44%
	Other	16%
Is the internal	Yes	21%
communication organizational sub-units within the department for public relations?	No	79%
How many employees in	0	60%
your organization deals	1	23%
only with internal communication?	2-5	13%
communication;	6 or more	4%

Participants of this study are heterogenous group working in diverse organizations, which is one of the advantages of the study - to gain as much as possible different views from different sectors on issues of internal communication. However, most of the respondents (36%) work in organizations engaged in the service sector (banks, retailers, insurance, tourism sector ...). These organizations are primarily focused on providing services to the final customer and the public image is very important for them, so they have established public relations within the organization, often with ten or more employees. This sample consists of experts for public relations of different organizations by size or number of employees. Majority of the respondents are from the largest organizations with more than 500 employees. However, it is certainly interesting to note that even in smaller organizations with 50 employees public relations are developed, and in these smaller organizations is present awareness for the need to communicate. In the next question participants were asked does the organization they work for have a separate department for public relations. More than a half respondents work in organizations that have separate departments for public relations as part of the organizational structure within the organization. This is quite a high percentage, especially in the light of the fact that 42% of respondents are employed in the organizations with fewer than 100 employees. Above mentioned have opened two questions, depending on whether the response was positive or negative. If it was positive (53%), open sub-question is how much employees is in the department for public relations. If answer was negative (47%), open sub-question is in which organizational unit are they situated. Most of organizations that have public relations have only a few employees in public relations department, ranging from 1 to 5. Total of up to 10 employees have three-quarters of organizations. Only the largest organizations have more than 10 employees. Such number of employees actually makes considerable competitive advantage and great resource for the organization. Organizations without public relations as a separate department have mainly two solutions within the organization to accommodate public relations: in marketing or in the Board Office. In fact, it is widely accepted that the larger organizations often combine marketing and public relations. Twenty years ago public relations were part of marketing, not a separate organizational unit. Board Office, which is dominated by 44% as an alternative solution for public, have mainly organizations that have spokesman and maybe one more person employed for this purpose. This is not enough for a particular department, but those employees have an extremely important role and they are leaning on the Board, usually the CEO.

Less than a quarter of organizations have internal communication as sub-unit within the department for public relations, while in other organizations internal communication takes place as the part of the overall communication activities. Organizations that have internal communication as a separate organizational subunit are those that have the highest volume of jobs and highest number of employees. This issue was related to the number of employees in the organization whose only assignment is internal communication. This response complements the previous question. Total of 83% organizations have no or one person who specializes in internal communication. Thus, for the vast majority of respondents internal communication is smaller or larger segment of the scope of work, but not the only one. Again, the correlation with the size of the organization is noticeable.

4.3 Perception of internal communication in organization

Respondents evaluated the importance of internal communication in the organization. They were asked to score importance in the range from 1 (without impact) to 5 (Extremely large impact).

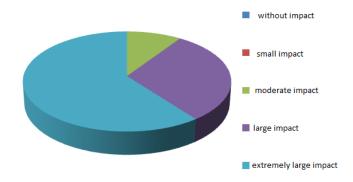


Figure 1. Perceived importance of internal communication

Figure 1 suggests that the experts in the field of communication consider internal communication as extremely important, as can be seen in the average score of 4.51. These results indicate a high awareness for the importance of internal communication.

Furthermore, participants were asked to evaluate their satisfaction with internal communication (in the range from 1 – not satisfied to 5 – extremely satisfied).

Level of satisfaction	Percentage
Not satisifed	13 %
Little satisifed	15 %
Moderately satisifed	47 %
Very satisifed	25 %
Extremely satisifed	o %

Table 3. Satisfaction with internal communication quality in organization

Results suggest that nearly half of respondents is moderately satisfied and there is evidently place for the improvement. Almost a third of the respondents are dissatisfied or very little satisfied, pointing to the fact that internal communication is neglected, even from the perspective of internal communicators. One third of respondents are dissatisfied, half is moderately satisfied, while only a quarter is satisfied with the quality of internal communication in the organization. There are no respondents which are extremely satisfied. All of the respondents consider quality of internal communication as a driver of quality of their work and the overall working atmosphere in the organization. This sort of acclamation only confirms very high level of awareness for the importance of internal communication among professionals in public relations. This also entitles the Department of Public Relations and Human Resources to initiate and promote projects that improve internal communication in organizations.

When asked what do they considered the most important for the quality of internal communication within organization, most of the respondents pointed out top management role.

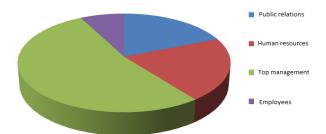


Figure 2. The most important for the quality of internal communication in organizations' respondents

More than half of respondents consider top management as a key for good internal communication, followed by human resources. This is expected given that the salaries and other material rights are in their domain, and those are issues of extreme importance for the employees. Those results are in line with previous research results which equate top management and human resources in importance. Public Relations are considered the most important for 10% of respondents. It is very interesting that only 7% of respondents believe that employees themselves are most important for the good internal communication.

4.4 ICT usage in internal communication

More than 90% of participants believe that the use of information technology can influence the improvement of internal communication. Information technology has an extremely high potential to impact on internal communication, mainly as a tool to perform communication.

. 6 1	O
ICT tool	Average
Intranet	3,3
E-mail	4,7
Chat	2,1
Skype	2
Web 2.0 tools	2,1
Forums	1,8
Blog	2
Personal web pages	2,1
Social networks	2,7
Other	2,8

Table 4. Average frequency of ICT usage

Respondents evaluated the frequency of use of various ICT tools for internal communication within their organizations. Grades were in the range from 1 (lowest frequency) to 5 (highest frequency). According to the results, there are two key information technologies that are used for formal internal communication: e-mail as the most dominant information technology and intranet with an average grade of 3.3. All other tools are used less frequently: respondents use it, but not frequently (average score is usually between 2 and 2.5). It is to be noted that respondents were asked to express their experiences with formal internal communication that takes place in the organization they work for. They do use social networks in a large extent for communication, but not for the formal organizational purposes, mostly for private individual communication, 23% of participants do not have intranet, and those are mostly organizations with less than 100 employees, while 77% of respondents use their organization's intranet as a channel for internal communication. Less than half of those respondents, add or remove content on a daily basis. On the other hand more than 40% of respondents changes intranet content less than once a week. Such intranet it is used as a tool for business processes, but in terms of communication, is out of date. According to the experiences of respondents, the biggest advantage of the intranet as a channel of communication is its speed. This is in line with previous research results. Some of the respondents emphasized low costs (particularly in relation to the printed channels), or the unavailability of intranet for people outside the organization as biggest benefit of intranet. Half of the respondents see users themselves as the biggest flaw of intranet. They believe employees do not have enough time to read the content. On the other hand, 30% of respondents indicates outdated content as the main problem which often rejects employees to use it. Two dominant responses are in conflict: while first response indicates that the problem is in the user, the second response indicates that the problem is the one who creates and provides content. It is interesting that about 10% see unavailability of intranet for people outside the organization as flaw.

Further, respondents were asked to evaluate impact of ICT tools on their achievement in terms of various segments.

without impact

small impact

moderate impact

large impact

Figure 3. ICT impact on employees informing

According to the answers, ICT has an impact on the informing of employees. While the answers vary in the amount of this influence, the dominant response is that they have a large or moderate impact. About the same number of respondents, 15%, believes that the impact is small or extremely large.

The next question concerned the impact of ICT on the motivation. Results are in the Figure 4.

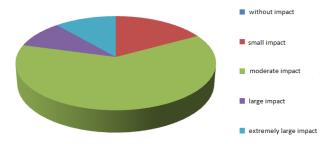


Figure 4. ICT impact on employees' motivation

While identifying impact of information technology on the motivation, the answer is more uniform. 63% of respondents considers ICT has moderate impact on motivation. If we take a deeper look at this results, we can see ICT impacts motivation, but not as key factor. Crucial influences are usually salary or working atmosphere.

Respondents evaluation of ICT impact on productivity presents figure 5.

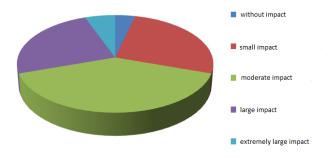


Figure 5. ICT impact on employees' productivity

Regarding the effect of IT on productivity, respondents gave answers in a very wide range: some argue that IT have no influence, whereas others see extremely large impact. However, the dominant response is that IT has a moderate impact on productivity.

Participants also expressed perception of ICT impact on loyalty.

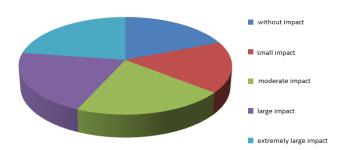


Figure 6. ICT impact on employees' loyalty

The question of relations between ICT and loyalty invoked the most concerns among the respondents. There are no dominant thinking, because all of the options received a similar percentage of votes. Loyalty to the organization means that employee is committed and disseminator of positive thinking about organization and the best "ambassador" of the organization inside and especially outside the organization. However, not even the experts in the field of public relations did not agree that the internal communication is one that has a crucial impact on loyalty. There is a certain amount of influence, but other factors within the organization must be included.

Can ICT influence understanding organizational development was following question.

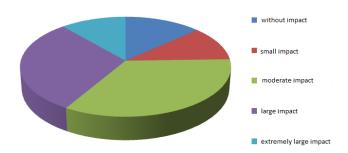


Figure 7. ICT impact on understanding organizational development

Similar distribution of answers occurred for this variable (Figure 7). In organizations with internal communication based on ICT impact is high, but in production companies for instance, situation is different. Understanding organizational development for employees is important, regardless of media transfers. Figure 8 shows distribution of answers regarding ICT usage influence on reducing rumours within organization.

without impact

small impact

moderate impact

large impact

Figure 8. Impact of ICT on reducing rumors within organization

Rumours are often a problem within the organization as they form informal internal communication which can be potentially dangerous to the functioning of the organization. Therefore, the essence of every good internal communication is to suppress their impact that with transparency and promptness. In this survey, concept of rumour applies only to those facts concerning the organization itself. The vast majority of respondents considers ICT can have a very high impact on the suppression of rumours, and thus indirectly to better internal communication based on facts and controlled information. Another question explores ICT impact on willingness to change.

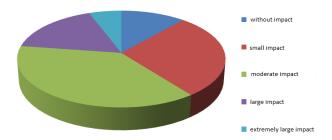


Figure 9. Impact of ICT on willingness to change

The tendency of members of the organization to change usually can be stressful. In fact, people naturally do not like change, they do not like the change of working conditions, the environment. However, no organization must not stand still, but must constantly strive for something better. For all it takes is a single agreement with the members of the organization, requires their being informed as it can affect the propensity to change. For them being informed, ICT is crucial, as a channel for achieving quality and timely information. Last question examined ICT impact on overall satisfaction.

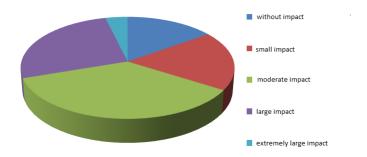


Figure 10. Impact of ICT on overall satisfaction

Overall satisfaction of members of the organization implies opinion of members of the organization and the totality of the pleasures that the member has in the organization of working conditions, work atmosphere, the substantive rights to future prospects. On top of that, a third of respondents believe that internal communication based on information technology has little or no impact, and about the same number of answers is to have a modest impact, and have a great or very great impact.

4.5 ICT usage impact on internal communication

A Bayesian methodology was developed in this paper for hypothesis testing.

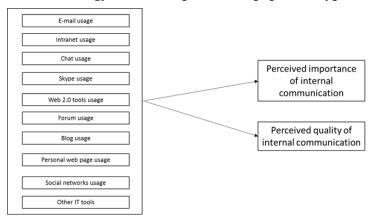


Figure 11. First Bayesian model

First Bayesian model tests relationship between various ICT tools usage (e-mail, Intranet, chat, Skype, web 2.0 tools, forum, blog, personal web page, social networks) and perceived importance and quality of internal communication (see Figure 11).

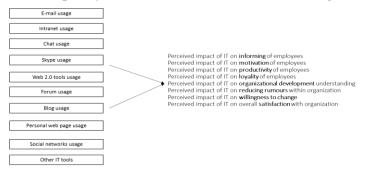


Figure 12. Second Bayesian model

Second Bayesian model tests relationship between various ICT tools usage (e-mail, Intranet, chat, Skype, web 2.0 tools, forum, blog, personal web page, social networks) and perceived impact of ICT on informing, motivation, productivity, loyalty, organizational development, reducing rumors, willingness to change and overall satisfaction of employees (see figure 11).

Useful information can be extracted from the Bayesian model so as to help understand internal communication patterns and optimize IT tools usage in order to improve internal communication. Examining Bayesian model by performing sensitivity analysis, the significant factors that determine quality of internal communication can be identified. In particular, the column contribution of the first model can be analyzed as follows: variables Intranet usage and Skype usage contributed the most to quality of internal communication. This indicates that

Intranet and Skype usage are the most important determinants of internal communication quality of all these ICT tools. Then, for clarity, as the significant factors for the perceived importance of internal communication are identified web 2.0 tools and social networks. Thus, hypothesis H1 and H2 are confirmed: some of the ICT tools significantly contribute to the quality and importance of internal communication.

Second research model emphasized e-mail usage as a predictor of employees informing and chat usage as predictor for productivity of employees. This confirms hypothesis H₃.

5. Conclusion

In today's turbulent environment, organizations cannot be competitive without effective internal communication. This paper strives to help organizations improve internal communication by identifying ICT tools that might improve internal communication. Descriptive modeling with distributions and Bayesian methodology was developed in this paper for model prediction. Conducted research among public relations experts in the Croatian organizations provided insight into current state of the internal communications, the use of information technologies for their enforcement, and give guidelines for improvement of internal communication. Research is based on the answers of public relations experts, and, as such, very valuable. Results provide typical profile of the PR experts in Croatia: highly educated female, age 31-40 working in the organization with separate PR department of 1 to 5 employees. However, internal communications are separate department only in the largest organizations.

Bayesian network analysis was used to empirically test the relationship between internal communication and ICT tools usage. In the first research model involving perceived quality and importance of internal communication (H1 and H2) a significant and positive association between Intranet and Skype usage with quality of internal communication was found, and web 2.0 tools and social networks usage and importance on internal communication. E-mail usage accounted for most of the variance in informing of employees, whereas chat usage contributed to the perceived impact of ICT on productivity of employees (H3).

This study makes valuable contribution to understanding the role of ICT in internal communication. However, several limitations need to be acknowledged. Random sample was used and this fact reduces the ability to generalize the results to the wider population. This study should mainly serve as a pilot study of research on ICT usage and internal communication effectiveness. Future research should explore the same hypothesis but using panel data to provide reliable conclusions.

Acknowledgements

This research did not receive any specific grant from funding agencies in the public commercial, or not-for-profit sectors.

The author declares no competing interests.

References

- Ahmed, P. K., & Rafiq, M. (2002). *Internal marketing: Tools and concepts for customer-focused management*. Oxford, UK: Butterworth-Heinemann.
- Argenti, P. A. (1996). Corporate communication as a discipline. *Management Communication Quarterly*, 10(1), 73-97.
- CPRA (n.d.).
- Delen, D. (2015). Real-world data mining. Applied business analytics and decision making. Upper Saddle River, NJ: FT Press.
- Fenech, M. (2013). *Internal corporate communication on strategy and employee commitment*, Master's thesis, Aalto University, School of business.
- Frank, A., & J. Brownell, J. (1989). *Organizational communication and behavior: Communicating to improve performance*. Orlando, FL: Holt, Rinehart and Winston.
- Harmainen, L. (2014). *Internal communication & employee commitment: A secret ingredient for start-up success?* Master's thesis, Aalto University, School of Business.
- Karanges, E., Johnston, K., Beatson, A., & Lings, I. (2015). The influence of internal communication on employee engagement: A pilot study. *Public Relations Review*, *41*(2), 129-131.
- King, C., & Lee, H. (2016). Enhancing internal communication to build social capital amongst hospitality employees the role of social media. *International Journal of Contemporary Hospitality Management*, 28(12), 2675-2695.
- Lachotzki, F., & Noteboom, R. (2005). *Beyond control: Managing strategic alignment through corporate dialogue*. Chichester, England: John Wiley & Sons.
- Quirke, B. (2000). Making the connections: Using internal communication to turn strategy into action. Gower, Aldershot.
- Sjöberg, G., & Madsen, D. (2014). *Internal Communication: A quantitative case study at Specma Seals AB*. Independent Degree Project, Linnaeus University.
- Solomon, O-M. (2015). Assessing the effect of internal communication of organizational performance in the pharmaceutical industry in Ghana. A Thesis submitted to the Department of Marketing and Corporate Strategy, Kwame Nkrumah University of Science and Technology.
- Steinmueller, W. E. (2000). Will new information and communication technologies improve the 'codification' of knowledge? *Industrial and Corporate Change*, 9, 361-376.
- Thompkins, P. K. (1987). Translating organizational theory: Symbolism over substance. In F. M. Jablin, L. L. Putnam, K. H. Roberts & L. W. Porter (Eds.), *Handbook of organizational communication:*An interdisciplinary perspective (pp. 70-96). Newbury Park, CA: Sage.
- Tkalac Vercic, A., Vercic, D., & Srirames, K. (2012). Internal communication: Definition, parameters, and the future. *Public Relations Review*, 38(2), 223-230.
- Van Riel, C. (1995). Principles of corporate communication. Harlow: Prentice-Hall.
- Welch, M., & Jackson, P. R. (2007). Rethinking internal communication: A stakeholder approach. *Corporate Communications: An International Journal*, 12(2), 177-198.

