

The Role of Internal CEO Communication in a Digitalized Work Environment

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Abstract

Driven by digitalization internal CEO communication is changing. The number of communications instruments is increasing while communication itself has grown more complex. Therefore, we examine how communication between CEOs and employees presents itself today and in the future. Two theses were established: the first postulates that besides strategy, the communication of values gains importance. The second postulates that the function of CEO communication is to build trust (a) and that transparency thereby plays an important role (b).

The theses and instruments were operationalized into a questionnaire. It was sent to leading communication experts at the 120 largest companies in Switzerland. The results show that strategy and values are important today and will remain so in the future. The gaining of trust is a central function of CEO communication and, transparency will play a greater role in the future. The results revealed also surprising aspects, described in detail in the paper.

Keywords: Internal CEO communication, employee communication, communication instruments, strategy, transparency

INTRODUCTION

The working environment is experiencing radical change. Driven by digitalization, agile organizational structures and the demographic shift, the daily business for many, or perhaps the majority, of employees is changing. Static office workstations are being replaced by new working landscapes, and cooperation between teams is being made easier and faster thanks to digitalization. Increasing numbers of people are working while travelling, at the customer site, or from home. The borders between work and leisure time are becoming increasingly fluid and the younger generations Y and Z have different expectations of management and organization than older ones.

These developments also affect internal company communication with an increasing number of communication channels (Oestreicher, 2010). Many organizations are supplementing transitional intranet

structures with social media-like functions such as chats, blogs or commentary functions. The complexity of internal communication (we use employee communication and internal communication synonymous) has thereby increased (e.g. Petry, 2016), making subsequent information density more difficult for management and employees to process. There is a risk of overload and disorientation.

Against this backdrop, this study will examine how communication between CEO management and employees has changed with regard to the outlined new working environment and how it manifests itself today. We have also incorporated the perception of future developments into the study.

This study will focus on CEO communication because, in corporate practice, significant resources are dedicated to this subject and it is associated with the high expectations of the those involved with regard to orientation, identification, and motivation of employees. Under these new conditions, the CEO and management play a pivotal role in the understanding of corporate management and organization (e.g. Gloger in Petry, 2016; Petry, 2016).

By focusing on CEO communication, the study aims to play a role in filling the current void in research relating to this topic. As reported by Nagel (2013, pg. 9), specialist literature and research has placed too little emphasis on the subject of CEO communication. When the topic is discussed, the focus tends to be placed on aspects of communication with external target groups, such as the capital market, owners, and supervisory and advisory boards, as well as suppliers and clients.

THEORY

The fundamental framework of internal communication

Line communication

Jäggi & Egli (2007, p. 14), mentioned three forms of internal communication: “Firstly, communication as part of the standard management activity, i.e., classic line communication, e.g., top-down or bottom-up from hierarchy level to hierarchy level...” (mid-level is displayed in Fig. 1). For example, Klöver (1999, p.4) affords line communication a prominent role while describing internal communication overall as a matter which “primarily concerns the superiors”.

Informal internal communication

Secondly, Jäggi & Egli (2007, p. 14) refer to informal internal communication as being the entire internal flow of information which has removed itself from any type of systematic order and which bypasses working groups and hierarchical structures (lower level in fig. 1). This also includes team and collegial conversations where non-directly subordinate posts communicate across hierarchies primarily horizontally and, at times, vertically (Escribano in Dörfel & Schulz, 2012, p. 68). Schick (2002) speaks of an “informal network”. Under the conditions of digitalization and the new working environments, this form of internal communication has gained significance. Buchholz & Knorre (2017, p. 18) report that in the context of the agility of corporate characters, this should be viewed as a “network organization” which has direct internal communication implications.

Internal CEO communication: a part of parallel communication

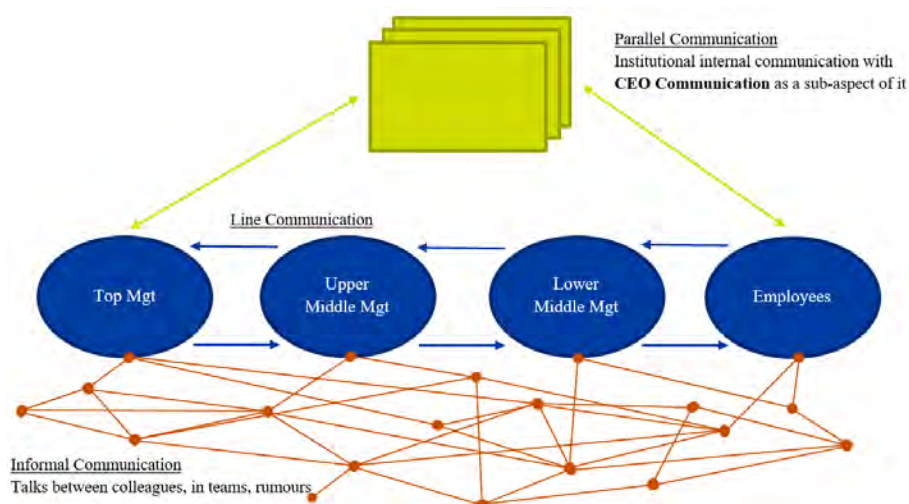
Finally, the authors speak of what is known as parallel communication (see the highest level in fig.1). This primarily perceives communication duties as being top-down and supplies the employees with information while bypassing line organization. In medium to large companies, the task is carried out by

a specially designated communication executive and, according to the terminology used by Jäggi & Egli (2007), is known as institutional internal communication. Institutional because there is an internal organizational unit which focuses on these respective responsibilities (e.g. Department of Internal Communication). For example, the term internal communication, described by Bruhn (2011) as synonymous with “employee communication”, is what is mainly evident here.

Internal CEO communication can also be seen as part of institutional communication as the communication from the CEO also takes place parallel to line communication. In general, this is carried out by a specifically designated organizational unit, such as a department from internal communication. The wide array of communication channels now available thanks to digitalization makes it possible for today’s CEOs to conduct parallel communication easily and independently from the communication department. While this does increase the level of complexity, it also creates new potential.

Additionally, it is common for large companies to have more than one communication department. Besides this, other organizational units also have communication resources at their disposal meaning that parallel communication is comprised of numerous “strands”. This means that, alongside the institutional internal communication structures, the human resources department, distribution, IT etc., or other organizational units (e.g. Products or Markets) can also regularly provide information to all, or a large part, of the employees directly. In this case, CEO communication must distinguish itself from all other forms of parallel communication.

Figure 1: The three forms of internal communication



Jäggi & Egli (2007, S. 14)

Finally, due to digitalization and the new working environment, it will become more difficult to clearly separate the three main forms (line communication, informal internal communication, parallel communication), or overall internal and external communication, from one another (e.g. Werther et al. (see Chapter 3) in Werther & Bruckner, 2018).

It should be noted that specialist literature usually does not draw a clear line between these forms of internal communication. However, they have been mentioned using different terms by many authors (e.g. Bruhn, 2011; Klöver, 1999; Mast, 2016; Meier, 2002).

As stated and explained in Chapter 1, Position Statement and Problem Definition, this study will focus on internal CEO communication as part of parallel communication which, in turn, is a sub-aspect of internal communication.

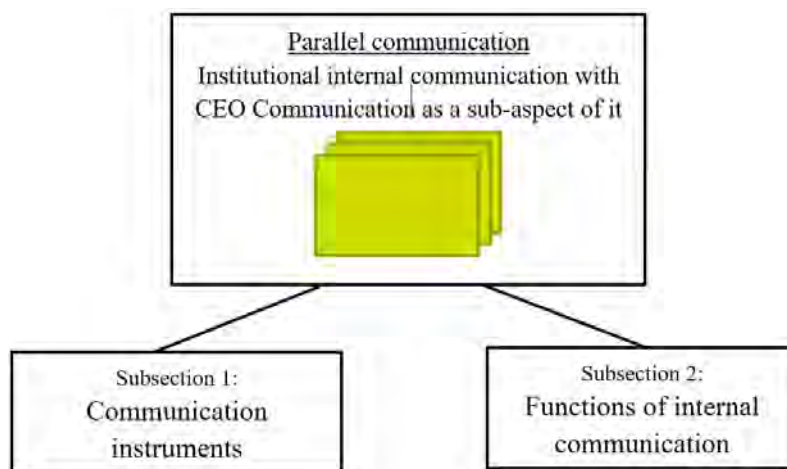
The role of the framework in the project

This principal framework clearly categorizes the central aspects of internal communications into three main strands, with internal CEO communication being part of parallel communication.

For this study, the parallel communication is operationalized in two subsections. We focus on parallel communication because internal CEO communication as a part of it stands at the center of interest in this work. The first subsection of operationalization is comprised of the *communication instruments*, i.e. the mediums used to communicate. Due to digitalization and the new working environment, the available catalogue of instruments has also changed in terms of internal CEO communication. This also raises questions as to which of the available instruments are actually used. The second subsection is per se comprised of the four primary *functions*, i.e. the objective which it seeks to achieve (Jäggi & Egli, 2007).

Against the backdrop of the current corporate landscape (i.e. the radical change of working environments), two theses are proposed relating to the functions of CEO communication as part of internal and parallel communication (see Chapter 2.2.2). Figure 2 visualizes operationalization in terms of instruments and functions.

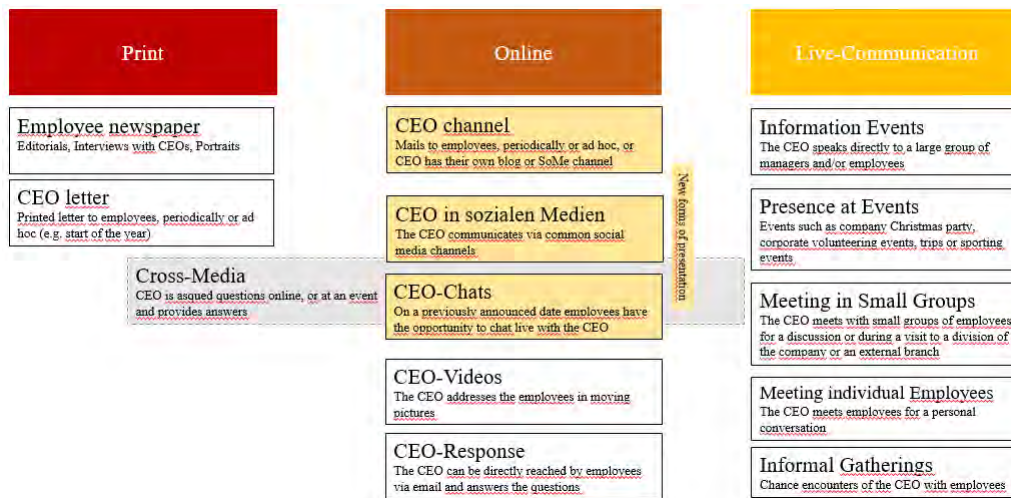
Figure 2: Operationalization of parallel communication in two subsections



CEO communication instruments toward employees

Figure 3 below shows in detail subsection 1 of internal CEO communication, which was defined as a result of the operationalization. Communication instruments are divided into print, online and live communication. Each individual instrument was primarily derived from specialist literature (Bruhn, 2011; Klöver, 1999; Mast, 2016). Secondly, using the Delphi method (Häder, 2013; Hug, Ochsner & Daniel, 2013; Okoli & Pawlowski, 2004), each individual instrument was presented to ten experts from the field of corporate communication and communication consulting with each being able to carry out modifications (See Chapter 3.1 for more details). The list of communication instruments was compiled using specialist literature and the input of the experts and the final version is displayed in figure 3.

Figure 3: CEO communication instruments towards employees



The main functions of internal communication and theses

The theoretical starting point of subsection 2, designated as a result of operationalization, is comprised of the four main functions of internal communication which were differentiated by Jäggi & Egli (2007), (see Table 1). “Aligning Employees with the Organizational Strategy”, “Optimization of Employee Loyalty”, “Increasing Employee Identification with and Trust in the Organization” and “Promotion and Development of the Organizational Culture” are all prioritized to different extents in new specialist literature (Jiang & Luo, 2017; Mast, 2016) and therefore relate to all three forms of internal communication (see Chapter 2.1) and, as a result, also to internal CEO communication.

For the second subdivision, the main functions were used as a guideline for the focus group in the empirical study (see methodology chapter).

Table 1: Functions and effect of internal communication

Functions
Aligning the Employees with the Organizational Strategy
Optimization of Employee Loyalty
Increasing Employee Identification with and Trust in the Organization
Promotion and Development of the Organizational Culture (Values, Convictions, Motives)

Adapted from Jäggi & Egli (2007, S. 14)

The functions were discussed based on a qualitative content analytical study of a group discussion (see Chapter 3.1) and led to the formulation of the two following theses:

- Thesis 1: *The main function of internal CEO communication is now, and will continue to be in the future, a strategy where the communication of values will gain in importance.*
- Thesis 2: *Internal CEO communication is there to build trust (a). In the context of the building of trust, transparency plays an important role (b).*

Thesis 1 formulates the assumption that the importance of the communication of values will increase, whereby those strategies will continue to be relevant. Several statements made in the focus group conversation support this assumption. Various participants stated that attitudes and values are already being communicated today but will be even more so in the future. The aim is to provide employees with a somewhat general but altogether essential orientation to help them find their own way into the new working world and one that is also suitable for the company. The role of a CEO as a Transformation Officer would become more important, as would asking why and attitudes. The following quotes taken from the group discussion underscore this (at least in part):

- Quote 1 *“Fact communication [...] to value and target communication [...]. [...] The jobs which are left for people are highly complex, subsequently, we are no longer in fact communicating, [...] but rather [...] only providing guidelines and ensuring orientation and identification”*.
- Quote 2: *“I believe that at this time there is a great challenge [...] facing CEOs [and] management. How much leeway should I give? If I implement inflexible rules, then this will generate orientation though the conveyance of values”*.

These quotes show that the communication of pure facts as well as rigid guidelines and rules is not appropriate for the current and future situation. According to statements made during the discussion, the CEO, however, must always be able to provide information about questions of strategy.

Thesis two was divided into two sub-theses, a and b. The function of creating and increasing trust stated in the sub-thesis 2a, is not purely founded in theory (e.g. Jiang & Luo, 2017), but was also fundamentally evident in the focus group discussion. This function has the characteristics of a basic assumption since as it is so highly relevant, it is seen as being practically self-evident. The following quote from the group discussion supports this:

- Quote 3: *“That there is someone at the top you can trust - I believe that nowadays trust is extremely important”*.

The self-evidence of the assumption that the creation and increase of trust is a central function is shown in the fact that, apart from the quote listed above, it was rarely a topic which was touched upon. Rather, the topic of transparency was discussed intensively by the discussion participants as a means to an end in the creation and increase of trust and especially now, with the more available digital possibilities, it will play an ever-greater role. This is the reason the separate sub-thesis 2b was suggested. The new digital communications channels often lead to top management echelons aspiring to become more transparent.

However, due to the lack of experience and courage in dealing with such channels, more transparent internal communication is often not implemented after all, according to statements made in the interview.

The risk of exposure when using these communication channels can be deemed a risk or an opportunity. Therefore, it is important to use the channels appropriately in line with personal objectives. The following quote highlights this:

- Quote 4: *“[...] If you [...] as CEO [...] play a greater role in the dialogue and engage in (digital) media, then in certain situations there is naturally also an increased risk that you perhaps post something which provokes a strong reaction which was not your original intention. You are more visible; you are more exposed”*.

Greater use of such channels means more intensive communication activities, regardless of risks and opportunities. With regard to transparency, it was discussed that it was mostly used to convey “good

things". In contrast, failures or mistakes were rarely communicated and, at times, whitewashed. The willingness to learn from mistakes is limited. A lack of courage to implement more transparency impedes a true and honest dialogue between management and employees dealing with ideas and opinions. Under these conditions, it is extremely difficult to build more trust as it must be mutual. A lack of transparency in the echelons of top management can be interpreted as a lack of trust in employees.

METHODOLOGY

The methodology of this study has been divided into two parts: firstly, the qualitative part, based on the Delphi method, and secondly, the quantitative part, based on a questionnaire. The first part is to consolidate the relevant internal communication instruments as well as the formulation of the theses (see theory chapter). The second part, the questionnaire, is based on the contents of the first section and demonstrates the perceived state of CEO communication in the companies of the consulted communication managers. Both methodologies are clarified in the following subchapters.

Qualitative Methods

As mentioned in the theory chapter, the process to consolidate the instruments of internal CEO communication is based on the Delphi method. This corresponds to multi-stage questioning where experts of a specific field are presented with a questionnaire (Vorgrimler, 2003). The questions were sent in written form and with short definitions to those consulted. Based on Hug et al. (2013), closed questions were not posed, rather those consulted were given the opportunity to modify and supplement the instruments and their definition in written form. Ten experts in the field of corporate communication and communication consulting were interviewed in spring 2018. The criterion for inclusion was long-term experience in a position responsible for internal communication or as a communication consultant. The survey of these ten experts corresponded to the first stage of the Delphi method. The responses were analyzed, and the instruments and their definition were adjusted accordingly.

As also mentioned in the theory chapter, in a secondary stage, the adjusted instruments were discussed by five experts from the Swiss business world (e.g., Bohnsack & Przyborski, 2010; Morgan, 1996) during a moderated group discussion (focus group discussion). The selection of the discussion participants was also based on the criterion of long-term experience.

The focus group conversation was not only a (second) discussion of the instruments, as the moderator also posed questions relating to the four theoretical functions of internal CEO communications. The basis of the discussion was a discussion guide with open questions relating to the instruments and the four functions of internal CEO communication.

After the collection of the data, the contents of the discussion were subject to a qualitative content analysis. Firstly, statements on communication instruments were coded and analyzed with the aim of consolidating the definition of the instruments and deciding which of the instruments should be included in the final instrument list. This list was later used in the questionnaire (see chapter to quantitative methods). Secondly, the text was searched for statements made regarding the functions of internal CEO communication. Text passages which contained such statements were coded. A theory-based list of the codes for functions and instruments was compiled before the initial readthrough of the data material (Kuckartz, 2018; Mayring, 2015; Meier, Polfer & Ulrich, 2019). After three readthroughs to ensure the consistent definition of the codes (Gibbs, 2018), the text passages for each code were analyzed by extracting and summarizing their core content. This analysis enabled an abstraction of the information which exemplified the similarities of the statements on a more general level. The process was based on Mayring's (2015) approach of inductive category creation. During the abstraction process, in some

instances the codes were further developed and all of them were subject to consolidation. Finally, the theses founded on the basis of this information were formulated, see chapter to theses above (e.g. Friese, 2019). The computer assisted content analysis of the qualitative data was carried out using atlas.ti software.

Quantitative Methods

The respective consolidated theses and instruments of CEO communication (see chapter the main functions and theses) established on the basis of the qualitative part were operationalized to enable the formulation of individual items (Mayer, 2013; Meier et al., 2019). The resulting questionnaire was structured in blocks based upon both theses and the instruments. The questions were posed in such a way as to record the perception of those consulted on the current situation and on future developments. A total of 25 content-related questions were posed (see attached questionnaire). The response scale corresponded to the four-point Likert scale extending from “disagree” to “strongly agree”. Additionally, we also posed an introductory question and demographic questions (incl. business field, age and gender of the consulted person). Unipark was the applied questionnaire software.

The communication executives from the 120 Swiss-based companies with the highest number of employees were invited to complete the questionnaire. A total of 67 of the consulted executives completed the questionnaire in full, which correlates to a completion rate of 55.8%.

Descriptive statistics were used for the data analysis (table, bar, columns and pie charts). The data is based on the fully completed questionnaires and displayed in Microsoft Excel.

FINDINGS AND INTERPRETATION

The results of each thesis and the instruments are presented below.

Thesis 1: Findings and Interpretation

Thesis 1 reads as follows: *The main function of internal CEO communication is now, and will continue to be in the future, a strategy where the communication of values will gain in importance.*

According to the responses of the majority of the questionnaire participants, the communication of corporate strategy is currently, and will remain to be, one of the main functions, or perhaps *the* main function, of CEO communication (see figures 4 and 5). The findings showed that the conveyance of values also plays a pivotal role and will continue to be perceived as important. However, a situation in which *values will become more important in the future was not observed*. In figures 4 (“Today”) and 5 (“In the Future”), the majority chose “*strongly agree*” as the response to the question regarding whether conveyance of strategy plays a central role. The opposite was true for “*Disagree*” with regard to “Today” and “In the Future”, with the majority stating that values were the central issue.

On the basis of these findings, Thesis 1 cannot be deemed plausible as the questionnaire participants found the conveyance of values will not become (even) more important in the future.

Figure 4: Conveyance values/strategies: today

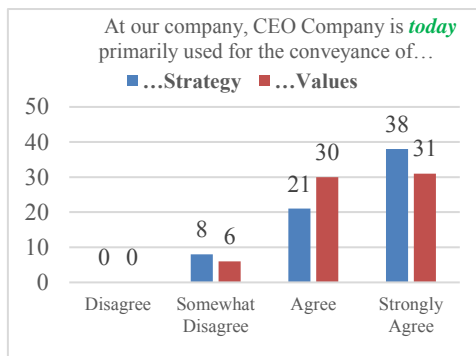
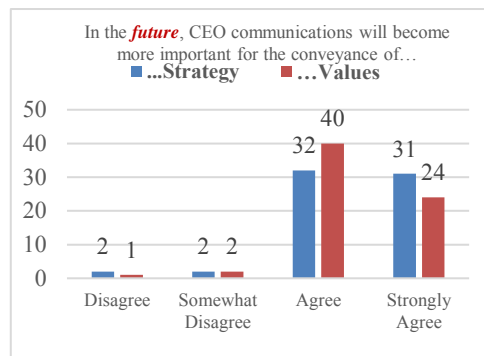


Figure 5: Conveyance values/strategies: future



Thesis 2: Findings and Interpretation

Thesis 2 reads as follows: *Internal CEO communication is there to build trust (a). In the context of the building of trust, transparency plays an important role (b).*

As displayed in figure 6, the questionnaire participants are very convinced that transparency as a sign of trust will become (even) more important in the future. They are also convinced that transparency will actually play a greater role (figure 7), but to a lesser extent. This displays a gap between the perception of the future importance of transparency and the probability that transparent communication will actually be implemented. On the basis of the first questions in particular, Theses 2a and 2b can be deemed plausible: Transparency in CEO communication plays an important role in the context of creating trust (b). The fact that internal CEO communication is there to build trust (a) is therefore also (indirectly) deemed plausible. A future planned study will place a still stronger focus on the examination of the correlation between internal CEO communication, transparency, and creation of trust, including the use of more items. The study will attempt to discover the reason for the aforementioned gap and what exactly are the obstacles to transparent internal CEO communication.

Figure 6: Transparency: a sign of trust

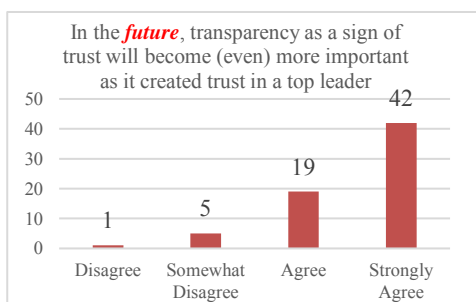
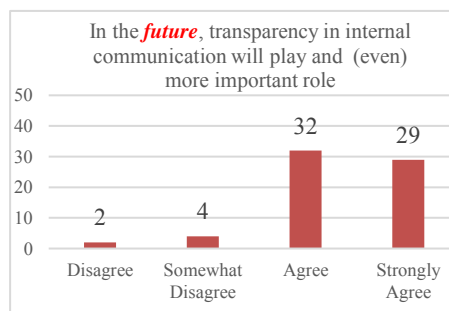


Figure 7: The role of transparency



The statement that CEOs communicate in a less transparent manner regarding failures, is confirmed in the tendencies shown in the survey: Little over half of the questionnaire participants chose “disagree” and “somewhat disagree” as responses to the statement that CEOs communicate failures (figure 8). Even clearer were the results for the statement regarding the communication of personal aspects, 56.7% (38 out of 67) reported “somewhat disagree” or “disagree”.

Furthermore, 91% of the questionnaire participants (61 out of 67) stated that they “somewhat agree” or “strongly agree” that digital media and the opportunities it offers increase the CEO’s exposure. This corresponds to the presumptions contained Chapter 2.2.2 for Thesis 2, that a CEO who actively uses digital channels has greater exposure. When asked if the perceived increased exposure of CEOs means a higher risk or trust, the majority stated that it creates more trust (see figure 9). This can be deemed an

overall positive position of the questionnaire participants toward digital media. However, it should be noted that many (also) see a potential for risk in the exposure.

Figure 8: Communication of failures

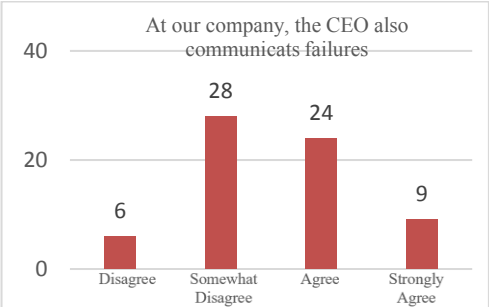
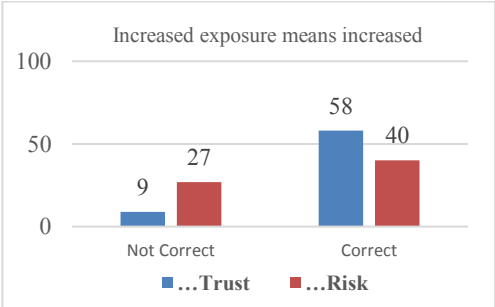


Figure 9: Exposure regarding trust and risk



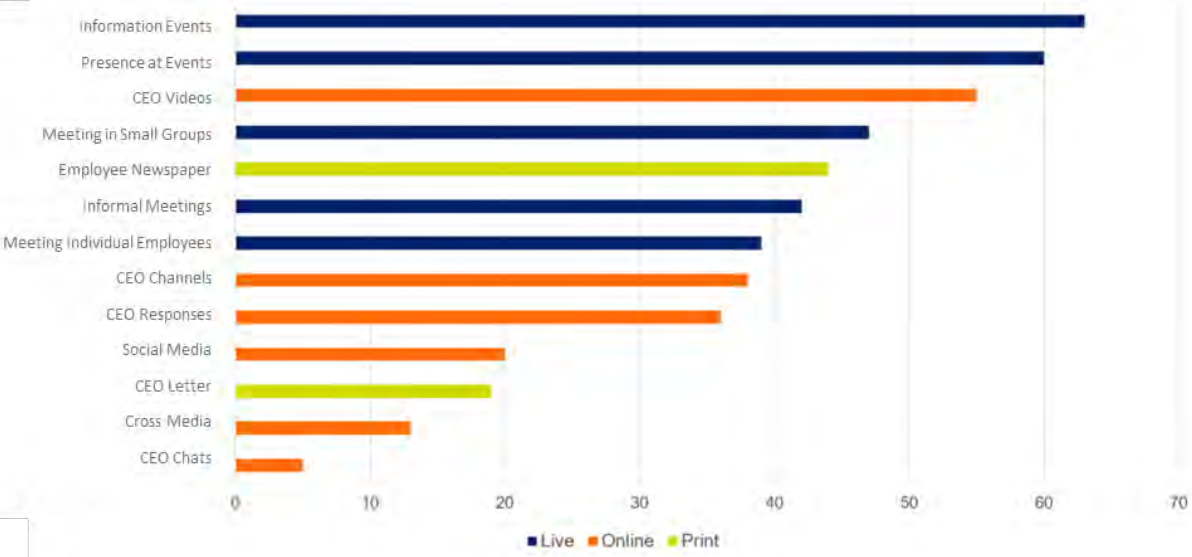
The fact that increased CEO exposure due to digital media is a subject that requires attention is shown by the responses to the question of whether CEOs will use digital media (even) more in the future, 94% (63 out of 67) of the questionnaire participants “somewhat agreed” or “strongly agreed”.

Instruments of CEO communication: Findings and Interpretation

On the basis of the qualitative analysis (see Chapter 3.1), the instruments of CEO communication were consolidated. Figure 3 (Chapter 2.2.1) displays an overview of the types of instruments and includes their definition. Figure 10 lists how many of the questionnaire participant companies use each individual instrument.

Online instruments (orange) are used relatively little, while live forms of communication are (still) used regularly (blue). An exception to the online instrument findings is the CEO video. This is used in the significant number of 55 companies and is therefore the third most commonly used instrument. The most commonly used instruments are (still) information events and attendance at events. Printed communications continue to exist (green), especially in the form of employee newspapers, which remain present in around two thirds of the companies.

Figure 10: The application of CEO internal communication instruments by number of companies



CONCLUSIONS

The answers to Thesis 1 were clear: They stated that today, and in the future, the communication of strategies and values will play an important role. There was no evidence that values will increase in importance compared with strategy. For Thesis 2 the function of CEO communication to create trust was most prominent.

Transparency plays a pivotal role in this context. The perception that transparency will play an increasingly important role for the creation of trust in the future but that, despite digital media, communication transparency will not increase displays a clear future gap between actual and theoretical targets. The obstacles to more transparent communication and the correlation between CEO communication, transparency and creating trust will be analyzed in depth in an upcoming study. The central role of transparency in management communication requires organizational understanding aligned with the digital age and more self-determination from employees. Perception of corporate goals, transparency and open communication are of central importance in a digital environment characterized by volatility, complexity and ambiguity (e.g. Jiang & Luo, 2017; Petry, 2016). Only through this type of communication can employees receive the contextual information necessary to make appropriate decisions.

REFERENCES

- Bohnsack, R. & Przyborski, A. (2010). Diskursorganisation, Gesprächsanalyse und die Methode der Gruppendiskussion. In Ralf Bohnsack, Aglaja Przyborski & Burkhard Schäffer (Hrsg.), *Das Gruppendiskussionsverfahren in der Forschungspraxis* (2. Aufl., S. 233-248). Opladen: Verlag Barbara Budrich.
- Bruhn, M. (2011). *Unternehmens- und Marketingkommunikation. Handbuch für ein integriertes Kommunikationsmanagement*. München: Verlag Franz Vahlen.
- Buchholz U. & Knorre S. (2017). *Interne Kommunikation in agilen Unternehmen*. Wiesbaden: Springer Gabler.
- Dörfel, L. & Schulz, T. (Hrsg.) (2012). *Social Media in der internen Kommunikation*. Berlin: Scm c/o prismus communications GmbH.
- Friese, S. (2019). *Qualitative Data Analysis with atlas.ti* (3. Aufl.). Thousand Oaks: Sage.
- Gibbs, G. (2018). *Analyzing Qualitative Data* (2. Aufl.). Thousand Oaks: Sage.
- Häder, M. (2013). *Delphi-Befragungen: Ein Arbeitsbuch* (3. Aufl.). Wiesbaden: Springer VS.
- Hug, S. E., Ochsner, M. & Daniel, H. D. (2013). Criteria for assessing research quality in the humanities: a Delphi study among scholars of English literature, German literature and art history. *Research Evaluation*, 22, 369-383.
- Jäggi, A. & Egli, V. (2007). *Interne Kommunikation in der Praxis. Sieben Analysen, sieben Fallbeispiele, sieben Meinungen*. Zürich: Verlag Neue Zürcher Zeitung.
- Jiang, H. & Luo, Y. (2017). Crafting employee trust: from authenticity, transparency to engagement. *Journal of Communication Management* 22(2), S. 138-160.
- Klöver, F. (1999). *Erfolgreich durch interne Kommunikation. Mitarbeiter informieren, motivieren und aktivieren*. Neuwied: Verlag Lucherhand.
- Kuckartz, U. (2018). *Qualitative Inhaltsanalyse. Methoden, Praxis, Computerunterstützung* (4. Aufl.). Weinheim: Beltz Juventa.
- Mast, C. (2016). *Unternehmenskommunikation* (6. Aufl.). Konstanz: Verlag UVK.
- Mayer, H.O. (2013). *Interview und schriftliche Befragung: Grundlagen und Methoden empirischer Sozialforschung* (6. Aufl.). München: Oldenbourg Verlag.
- Mayring, P. (2015). *Qualitative Inhaltsanalyse: Grundlagen und Techniken* (12. Aufl.). Weinheim: Beltz.
- Meier, C., Polfer, L. & Ulrich, G.S. (2019). *Das 1 x 1 des wissenschaftlichen Arbeitens in Betriebswirtschaft*. Vorabdruck.
- Meier, P. (2002). *Interne Kommunikation im Unternehmen. Von der Hauszeitung bis zum Intranet*. Zürich, Verlag Orell Füssli.

- Morgan, D. L. (1996). *Focus Groups as a Qualitative Research* (2. Aufl.). Thousand Oaks, CA: Sage.
- Nagel, K. (2013). *CEO-Kommunikation als machtvoll Instrument zur Unternehmensführung*. Wien: Linde Verlag.
- Okoli, C. & Pawlowski, S. D. (2004). The Delphi method as a research tool: an example, design considerations and applications. *Information & Management*, 42, 15-29.
- Oestreicher, K. (2010). *Strategische Kommunikation und Stakeholdermanagement*. Erlangen, Publicis Publishing.
- Petry, T. (Hrsg.) (2016). *Digital Leadership: Erfolgreiches Führen in Zeiten der Digital Economy*. Freiburg: Haufe.
- Schick, S. (2002). *Interne Unternehmenskommunikation. Strategie entwickeln, Strukturen schaffen, Prozesse steuern*. Stuttgart: Schäffer-Poeschel Verlag.
- Vorgrimler, D. (2003). *Die Delphi-Methode und ihre Eignung als Prognoseinstrument*. Statistisches Bundesamt: Wirtschaft und Statistik, 8, 763-774.
- Werther, S. & Bruckner, L. (2018). *Arbeit 4.0 aktiv gestalten: Die Zukunft der Arbeit zwischen Agilität, People Analytics und Digitalisierung*. Berlin: Springer.