Chapter 3
Communication when collecting information

3.1. Sources of primary and secondary information – designing the research process

According to Tworzydło [2017], there are several types of research used in communication-related processes, which are used to obtain information. They can be grouped using the following criteria:

- criterion of information sources used in research:
  - – primary research,
  - – secondary research,
- criterion of the nature of the information obtained:
  - – qualitative research,
  - – quantitative research,
- subject criterion (scope of research), including:
  - – testing the operating conditions of the entity,
  - – research on the tools of the company's or organization's impact on target groups,
- – performance research.

Primary research focuses on obtaining previously non-existent data and information. In contrast, secondary research is based on the evaluation of the existing analytical material. It includes most of the available materials, i.e. documents found in institutions in digital and paper form, the results of research conducted so far, and data from external reports and Internet monitoring. In the literature on the subject, secondary research is sometimes referred to as source research, and primary as field research [Tworzydło, 2017].

The second division of the research is the division into quantitative and qualitative research due to the nature of the obtained data. The differences between these types of tests are summarized in Table 3.1.

Table 3.1. Differences between quantitative and qualitative research

Quantitative research	Qualitative research
They answer the question "how much"	They answer the question "why"
We transfer the results to the population	We do not transfer the results to the population
We use a structured questionnaire	The research scenario is flexible
The researcher has a limited influence on the course of the study	The researcher (moderator) has a significant influence on the entire research process
The acquired data is objective	The acquired data is subjective

Source: based on TNS Global, in: [Miotk, 2012].

Due to the purpose of the research, there are descriptive and explanatory studies. Descriptive research usually aims to examine the state "as is", and explanatory research is used to explain why the studied phenomena occur, how they proceed, and what factors govern them. Research may be carried out with solely to report (as it is in relation to the studied phenomenon/subject) or aim to generalize (point to the potential existence of regularities in the entire population). Another typology indicates the need to distinguish between prognostic studies aimed at predicting future events and those that do not create these forecasts, but focus only on the description of the existing state.

In the work of the internal auditor, the conducted audit is both descriptive (diagnosing the actual state) and explanatory (determining the causes of a given phenomenon, e.g. the occurrence of adverse events or irregularities).

Regardless of the type of research, its purpose is to obtain information. According to the purpose they serve, the information can be divided into:

- operational information – systematically collected and used to make decisions about repetitive processes, for example internal communication; they are collected and processed by the employees of the organization;
- special (problem) information that allows us to determine the future directions of the organization's activities, understand the causes of certain phenomena in its structures and processes, and predict the likely reactions of stakeholders to information activities undertaken by the organization; they

may be processed and collected by employees of the organization under investigation or by external entities, for example by research agencies.

All the information obtained during the internal audit should be:

- reliable,
- current,
- precise,
- full (complete),
- accurate,
- comparable,
- properly edited,
- conveyed in a simple form,
- delivered in a timely manner.

According to the internal audit standards [IIA, 2016], which include, among other, recommendations regarding information, internal auditors must collect data that in essence "... relates to the task, is sufficient, reliable and useful tin achieving its objectives." It is worth noting that the desired feature of the obtained information is its completeness, but in relation to the purpose of the audit. This means that when obtaining information, the internal auditor focuses not on obtaining all the information that may be obtained during the audit, but on the information that is necessary to achieve the objectives of the audit engagement. In the opinion of the Institute of Internal Auditors, the information sufficient for the proper performance of tasks by the internal auditor is "… factual, appropriate and convincing, so that a prudent, well-informed person would reach the same conclusions as the auditor on its basis. Reliable information is the best information that can be obtained with the appropriate audit techniques…" and "…the information is related to the engagement, if it provides the basis for the findings and recommendations and is consistent with the engagement's objectives. Useful information helps the organization achieve its goals."

Many factors may contribute to the selection of a research method. These may include the time in which the internal audit should be performed and completed, the scope and nature of the available data, the nature of the decision to carry out the study (e.g. low credibility of the available data may force the necessity to carry out the study), the effectiveness and efficiency of obtaining the necessary information (profit-cost relationship). In the event of time limitations or the willingness to obtain information from

the environment of the audited organization, the audit may be carried out in cooperation with external entities. For example, the internal auditor may use an external expert to assist with the audit engagement.

Research is a multi-stage process [Babbie, 2004]:

1. designing a study, which may include the following activities:
   – preparation of the research concept, including the selection of research topics,
   – selection of research techniques,
2. selecting a sample for testing,
3. construction of a measuring instrument,
4. checking the questions in the pilot study,
5. collecting data,
6. reduction/selection and preliminary processing of materials obtained from the study,
7. data analysis,
8. evaluation of the test results and preparation of the test report.

The research concept may be created as an internal document or – in the case of the research being carried out in cooperation with external entities – may take the form of a brief. In both cases, the document should contain the following parts [Miotk, 2012; Tworzydło, 2017]:

- description of the initial situation which is the basis for the decision to conduct the audit,
- the scope of the planned use of the collected data,
- description of the expected scope of the research, including:
  – description of the research problem, research purpose,
  – defining the target group or groups,
- indication and description of the studied population and suggesting the expected method of sampling,
- description of the material confidentiality requirements and the scope of this confidentiality,
- description and presentation of the principles of cooperation of the members of the audit team, including but not limited to:
  – expectations for working meetings,

– indication of the expected form of presenting the results,
– defining expectations regarding the qualifications of the audit team,

- supplementary data, e.g. work schedule and contact details – names, addresses, telephone numbers, e-mail addresses.

The more accurately the research concept is developed, the better the results and the possibility of their use for evaluation and inference.

The selection of the sample for the study may be random, however, due to the nature of the internal audit and the area of its interests, in most cases the selection of the frame will be deliberate. Correct selection requires the auditor's knowledge of the size of the studied population. Whenever possible, internal auditors planning an audit should also know the structure of the population, e.g. in terms of the characteristics examined. If a sample is constructed based on several characteristics, the auditor must know their approximate distribution in the surveyed population. Preliminary knowledge of the distribution of features is important to be able to map them in the design study. Of course, this type of data will not always be available.

3.2. Personal sources – how to talk and listen to obtain the desired information

Despite the development of electronic media and the undoubted role of the COVD-19 pandemic as a catalyst for changes in communication, face-to-face conversation is still seen as the best way to obtain information, and listening is a key managerial skill [Brown, 1982]. Unfortunately, there is a clear difference between our own assessment of listening competencies and actual listening competencies [Carrell and Willmington, 1996]. It is worth noting, however, that it is a competence that can be learned and trained [Lane, 2000]. Already in the 1990s, it was predicted that the development of multimedia would increase listening efficiency [Meskill, 1996].

Adler, Rosenfeld and Proctor emphasize the difference between listening and hearing. Hearing is the physiological ability to feel sound, while listening is the process of giving meaning to the signals reaching the listener's ears [Adler, Rosenfeld, Proctor, 2016]. It is the ability to listen that is the competence under consideration. The authors categorize several reasons for why we listen at all:

- we listen to understand – the more important the matter or the more personal, the more we are included to listen,

- we listen to evaluate – a human being is a social being, so the information obtained is used to assess the quality of the message itself,
- we listen to build relationships – it is a symmetrical reflection of the relational function of communication, listening in this case is a proof of interest and commitment,
- we listen for practical reasons – in many professions, listening is the basis for the proper performance of professional activities — a doctor conducts an interview to make a diagnosis, a lawyer listens ir order to decide on the line of defense, and a psychotherapist does so to decide on the type of therapy — this purpose of listening also characterizes the internal auditor.

The problems associated with obtaining information through listening are determined by at least a few factors that in the mathematical model of communication, discussed in the first chapter, would be treated as communication noise. The first of these factors is information overload when too much information is presented, making it difficult to identify and focus on the key message. This factor is reinforced by modern media that effectively act as distractors, making it difficult to concentrate. Another factor is personal considerations, which can quickly become a distraction in the event of the appearance of information that for various reasons may have an emotional value for the listener. Emotion as a base factor can effectively obscure the information value of a message, hide it or lose it. A paradoxical obstacle is the difference in the speed of receiving and processing information. While a person receiving information is able to process up to 600 words per minute, in the process of transmitting information in a similar time frame reaches up 140 words [Versfeld and Dreschler, 2002]. The resulting excess potential is used by emotions, additional thoughts, etc. The last factor are the physical noises or disturbances, which can cause the sounds to be disrupted or diffused.

The results of the research conducted on a group of almost 1,000 managers by Longwenien and Kroon show that internal auditors should have a certain advantage when it comes to listening skills. The aim of the study was to determine the effectiveness of managers' listening and feedback skills and their ability to deal with disruptions in the listening and feedback phases of the communication process. The results showed that the ability of subordinates to listen to managers is strongly correlated with the education of these subordinates. The higher the level of education, the higher

the listening competencies. Subordinates with a postgraduate degree also perceived their skills of listening and understanding managers better than those with only basic qualifications. The results have double implications. On the one hand, the prevalence of higher education among internal auditors should inspire optimism about listening competencies. On the other hand, it requires them to pay special attention when providing feedback to people with an average level of education [Longweni and Kroon, 2018].

The procedure of effective listening is invariably accompanied by the ability to ask appropriate questions that direct the conversation, encourage the interlocutor, help to understand the message and have relational value. The questions may serve the following purposes:

- explain the meaning of the answers provided,
- disclose know the thoughts, emotions, feelings of the interlocutor, for example to assess whether they do not affect his/her judgment and the tendency to change the content of the information,
- encourage development of information, sometimes in the form of praise, sometimes as evidence of listening
- encourage us to find an answer on your own, important when we want to know the interviewee's assessment,
- gather facts and details that are particularly important in the work of an internal auditor.

Dangerous from the point of view of the quality of the obtained answer, are the questions with errors. These are the questions:

1. with a hidden suggestion,
2. with a veiled correct answer,
3. based on false assumptions and
4. traps for the interlocutor.

One of the most valuable qualities of a good listener is the ability to paraphrase. It is a skill that goes well beyond simply repeating the answer in with different words. Paraphrasing can be used to clarify the facts, obtain personal information, and express empathy.

The benefits of active listening are not just substantive in nature. Inga Jonsdottir and Kristrun Fridriksdottir (2019), when researching Icelandic managers, found that in

addition to organizational benefits, the people who spoke (managers) experienced an increased sense of well-being at work. For them, active listening shows respect and focused attention.

The trap that the questioner may fall into is the emotional over-involvement that comes from empathy, understanding or compassion. It may turn out that the interview take a dangerous shift from being a tool for obtaining information into a form of therapy, obtaining emotional support or even giving advice. This is a very dangerous moment when professional objectivity and professional independence are threatened with personal involvement. The ability to separate personal emotions, which in themselves are nothing unnatural, from the professional attitude of the internal auditor is one of the most desirable and, on the other hand, dangerous qualities. The interlocutor may feel used, disappointed, and misled. On the one hand, showing emotions may feel like a cynical game, on the other hand, a complete lack of understanding may cause the person to be aggressive and resentful. Finding a reasonable compromise will be facilitated by clearly defined at the beginning of the conversation its purpose, rules, time range, type of questions, anonymity. It is also worth clearly defining the area of one's own competencies. Disclosing personal information is a common defensive strategy, and sometimes even a manipulation to hide the truth and mark it with emotions.

Before an internal auditor considers succumbing to the temptation to give advice, at least the following circumstances should be considered:

- is it compliant with the code of ethics, audit rules,
- whether the advice lies within the auditor's competence,
- whether the interlocutor really wants and needs advice and is ready to accept it,
- whether the interlocutor will use the advice as suggested.

An interview is a research technique that is based on talking to people and that can be used to obtain information for the purpose of an internal audit. It can take the form of a structured interview or a casual interview (it is then similar to a daily conversation). The positives, which in this technique contribute to obtaining good-quality information, include general cognitive curiosity lying in human nature, curiosity about a specific topic, willingness to help the internal auditor, sensing a chance to implement the changes desired by the auditee.

This research technique also has its limitations. During the interview, the respondent may feel discomfort due to the artificiality of the situation in which the interview is

conducted. In addition, the interviewee may be reluctant to talk about the selected topic, generally reluctant to participate in the interview, or fear that the information obtained in the interview will lead to negative consequences. The internal auditor carrying out the interview must also be aware that the audited, trying to avoid answering questions that make them uncomfortable, may indicate a lack of competence or ignorance in the subject of the interview. There may also be the reverse of an attempt to please the internal auditor by imparting information that they would like or expect to hear.

The success of the interview and the quality of the collected information may be determined not only by the nature of the respondents and the scope of questions, but also by the way the meeting is arranged, the interview, the general atmosphere during the interview (and before it starts). In the main part of the interview, it is important that the sequence of issues discussed is adjusted not only to the purpose, but also to the auditee. At this point, it should be noted that not every type of interview allows for this, and the very order of the questions asked and the respondents' reaction may also be the aim of the study in itself. However, if it is possible to modify the order of the topics discussed, it is worth placing the issues for which we may expect a negative response in the middle of the interview.

An important element is also the ability to freely move from one topic to another, and the so-called fictional inserts constitute an important "technical" element affecting the fluency and course of the interview, and thus the respondent's attitude. It is worth remembering that when starting the interview and during its course, we should first establish the facts and only then ask about their assessment. The exception to this rule is questions about stereotypes. Another principle of conducting interviews may include:

- first, general questions are asked, and then more detailed ones,
- filtering questions asked at the beginning of the interview allow for better interview planning,
- in the event of difficulties in obtaining answers from the auditee, they should be gently motivated to answer, but the argumentation used cannot refer directly to the results and subject of the study,
- the interview ends after making sure that the respondent has exhausted the possibilities of answering the discussed topic (obtaining verbal confirmation from the respondent).

The course of the interview may be positive or neutral. The audited person with a positive attitude towards the audit is more inclined to reveal the truth. In the case of a negative interview, the auditee will show a tendency to hide some information. In such situations, the internal auditor may use a hard strategy of breaking resistance, based on a strongly antagonistic interview, referring to an obligation resulting, for example, from legal provisions, internal regulations, etc., or a soft strategy referring to persuasion. It is essential that an internal auditor involved in an interview:

- did not assess and criticize the auditee,
- showed interest in the information received,
- did not indicate discrepancies in the received information through comments,
- did not impose their own views and judgments,
- created an atmosphere of conversation that allowed for high self-assessment of the respondent.

For the purposes of an internal audit, a focus panel may also be used. It assumes the obtaining of information from a group usually consisting of 8-12 people. The group discusses a specific problem under the guidance of a moderator who makes sure that the discussion is not dominated by one of the people or the group does not lose interest in the subject of the study. The duration of the panel is a maximum of 4 hours. Any room where it is possible to position a round table that will allow for the visual contact of the participants can be chosen as the place of implementation. The advantage of a group interview is a good representation of the real situation in which the opinions of individual people are shaped not only in the context of their information and experience, but also under the influence of contact with other people. The positive features of a group interview also include an increased sense of security of the respondents (comfort of being in a group) or the snowball effect (initiating the process of recalling information when exchanging information with other participants). However, we mustn't forget that during a group interview, the respondents modify their opinions, which may be positive or negative (the effect of group think). The reduced sense of individual responsibility for the assessments and information provided causes the possibility of a more critical attitude towards the phenomena in question than would be the case during an individual interview.

Focus research can be a valuable supplement to quantitative research based on a questionnaire interview. Conducted before quantitative research, it allows for a better preparation of the survey form and the questions it contains. The conducted research on

the basis of the questionnaire interview may allow for a better interpretation of the data collected during the quantitative research.

The questionnaire interview is a technique with a high degree of standardization. The interviewer's behavior, technical measures, i.e. the method of registering the answers, the content of the questions and possible answers (within the scope of lists based on selection criteria) are subject to standardization. The arrangement of the research environment is also subject to standardization, which leads to the standardization of stimuli that affect the auditee. The exception are questionnaire interviews, which are not carried out in an environment controlled by the auditee (e.g. consent to complete the questionnaire at one's own home or another location, which are not subject to the researcher's control). The questionnaire interview may be direct, carried out with the help of an auditor in the course of direct contact or a questionnaire interview read by a tele-interviewer, although the second example will have a very limited use in internal audit (for example, examining the opinions of the auditee's clients regarding the quality of service).

This group of research techniques also includes computer-assisted telephone interview (CATI) and an interview conducted entirely via the Internet (CAWI – Computer Assisted Web Interview). Although in the case of the latter, there is no direct contact between the auditee and the auditor, this is seen as an advantage, as this format may increase the auditee's sense of anonymity. The disadvantage of CAWI is the inability to control the course of the interview. There is no certainty that the interview will be completed. A good example of this type of research are the auditors' research carried out for the purposes of this publication. During the interview, 1,878 attempts to complete the survey were recorded, of which 515 were fully successful, i.e. answering all the questions asked by the researchers.

The basic elements of the survey questionnaire include:

- information about the institution/person conducting the research,
- the title (topic) of the research,
- brief information about the purpose of the study,
- additional explanations (e.g. justification for the selection of a given respondent, emphasizing the anonymity of the research),
- questionnaire instructions (explaining how to answer each question),
- questionnaire questions,
- data on the test subject (certificate).

Questions as a research tool in questionnaire interviews may have a different character. A single question does not have to independently play an informative role. Often, only a set of questions analyzed together provides the internal auditor with the necessary information about the subject or subject of the research. This type of approach is used, for example, in assessing the characteristics of individual respondents. At the same time, assigning the value of the examined feature to the respondent based on the feedback from the set of questions and answers assumes that the researcher is sure about the reliability and validity of the assumptions of such a test (usually confirmed empirically and during previous research). The traditional information concept assumes that a question is a request for information that can be judged true or false. In this concept, each question plays an independent informative role and is based on the assumption that the auditee is a reliable informant. The credibility here is not the same as the auditor's trust in the auditee. A reliable informant is a respondent who:

1. heard or read the question correctly,
2. understood the question in accordance with the intention and meaning given by the auditor,
3. has shown willingness and was able to mentally recall the facts and
4. wanted to convey the information without distorting it in the form of an answer to a question asked by the internal auditor.

Based on their content, the questions can be divided into those relating to the determination of behavior patterns, those used to determine the state of knowledge, and those regarding attitudes, e.g. towards the organization. Classification (statistical) questions belong to personal questions and relate to age, gender of respondents, education, income, etc. In the questions, except for open questions, non-metrological measurement scales (nominal and ordinal scale) and metric (interval and ratio scales) are used to estimate phenomena. Nominal scales make it possible to identify differences or equality between the measured characteristics, for example gender, place of residence, characteristics of services/products (including information).

Possible mathematical operations on data obtained on the basis of a nominal scale include the determination of numbers and proportions, fractions and percentages, dominant values, non-parametric tests. The use of an ordinal scale, which includes, among others, the scale of importance, grades, semantic, Likert, ranks or comparisons in pairs, allows us to organize the studied phenomena according to the relationship, e.g. larger –

smaller, better – worse, etc. Thanks to this scale, we can examine the quality of services, the respondents' preferences, motives and strength of attitudes. Interval scales make it possible to identify minority or majorities relations, as well as the intervals between the scale intervals. The ratio scale (proportional, quotient) is defined by selecting a constant unit of measurement and showing the absolute zero (one-sided limitation of the scale range). The zero point on the ratio scale means the absence (physical zero level) of a given feature. The ratio scale measures age, income, but also the extent of the demand for information, the number of readers/recipients of information.

The known problems of survey research include the desire to accelerate the completion of participation in the survey, which results in the so-called priority effect, i.e., indicating responses that are displayed or read first. We can protect ourselves against this by introducing a rotation of questions and issues that are displayed within individual questions and assessed by respondents. In the case of a self-completed questionnaire, the auditor has no direct influence on maintaining the auditee's attention and willingness to answer a large number of questions. In such a situation, we must remember that the survey questionnaire focuses on obtaining the most important information from the point of view of the internal auditor. The questions must be short, concise and understandable. Difficult questions are placed at the beginning of the survey and easier ones at the end of the interview.

Internal auditors may use observational studies as an additional technique for verifying the information in their possession. This technique is based on making insights to provide new information or verify existing information. The person making the observations may be the auditor or a person designated by them. It is important that the observation process is carried out in circumstances where the observed phenomenon occurs naturally. The literature indicates three features that limit the errors in information obtained with this technique [Babbie, 2004], and they are: perceptiveness, maintaining attention (concentration), and the ability to select.

The disadvantages and dangers of this technique include the fact that:

- the role of the observer in participant observation determines the field of observation, which may result in limitations in gaining access to some phenomena occurring within the examined organization, and important from the point of view of the audit,
- with the passage of time, a threat arises related to the possibility of identifying

the observer with the goals of the group, which may result in the conscious or unconscious selectivity of the detected observations,

- it is possible for the observer to assimilate the behavior patterns of the studied group, which may result in the omission of many phenomena important for the quality of the audit,
- there is no possibility of observing people who were absent during the observation,
- Explicit participant observation influences the behavior of the observed, and implicit observation triggers moral dilemmas.

3.3. Modern sources of information – social media, big data

Over 75 years ago, Friedrich Hayek in his scientific text entitled *The Use of Knowledge in Society* formulated the assumption that knowledge does not exist in a concentrated form, but as single bits of partially contradictory information scattered throughout the society [Rydzak, 2020]. Despite the passage of decades and the development of the Internet, this thesis still holds true. Access to knowledge in the digitization era, despite the apparent ease of obtaining information, is still largely difficult. Scattering, multiplication, distortions and contradictions mean that the construction of reality based on bits of information requires expert knowledge and the use of modern analytical tools.

The main, official source of information about the surveyed organization on the web may be its website. The basic parameters of the content structure may determine the effectiveness of the audit and obtaining the content found on the website. Errors or difficulty in navigation, poor availability of relevant content (it is placed deeply within the structure of the website) or difficult-to-read content may adversely affect the effective acquisition and evaluation of information. There are many classifications of websites. Due to the purpose and functions they perform, we can assume that following types of websites exist:

- branding,
- information,
- sales,
- service,
- social.

The existence of a website is often stimulated not so much by the will to properly communicate with stakeholders, but in many cases it is a legal requirement. For example, listed companies are required to have a website that allows them to communicate with investors. Local government units are required to provide relevant information to local communities. However, they may fulfill this obligation through their own website and the Public Information Bulletin.

Other, modern communication channels, and thus sources of information, include: blogs, discussion forums and the information activities carried out on them, and social networks.

E-mail correspondence was not included in the above list. It has been used since the early 1970s and it is difficult to classify it as a "new" source, although the way of correspondence via e-mail is constantly changing.

The research carried out by the Watchdog Polska Civic Network [Portal-Samorzadowy.pl, 2019] shows that local government units treat social media as a one-way communication channel and a way to provide information only about local government events or successes. Their activities lack the sender's dialogue with the recipient, which is the essence of modern media. The technological change that has taken place over the last few years, the ease of access to information and expressing opinions, simultaneous with the increased activity of consumers on the market (the emergence of prosumers actively obtaining information about organizations) means that entities are finding themselves using modern channels communication used by their stakeholders more and more often. As the next generations enter the market, organizations must be active on social media, maintaining their relationships with current and potential stakeholders [Freberg et al., 2011].

The evolution of stakeholders' expectations, their activity in social networks and the willingness to engage in dialogue results in a dynamic, multi-directional exchange of information, e.g. through comments on posts or forums. These entries can be a valuable source of information about irregularities in individual organizations. Research on the credibility of online sources indicates a low level of trust in the content posted on the Internet. One of the challenges indicated by people professionally involved in communication is gaining and maintaining the trust of the organization's stakeholders in the content it publicly produces [Page, 2007].

The literature on the subject indicates the existence of differences in the level of trust in individual enterprises and organizations depending on their socio-economic role,

e.g. depending on the sector to which a given organization belongs (financial, energy, administration etc. may have different levels of confidence rating) [Harris and Wicks, 2010]. We must all remember that the assessment of confidence in individual sectors is not stable and depending on the events taking place within them, may improve or deteriorate continuously or periodically. Maintaining a high level of trust, even in difficult situations, requires being open to dialogue and remaining transparent at the level of the entire organization [Schnackenberg and Tomlinson, 2016]. Transparency is understood as a concept consisting of several dimensions:

1. sharing the information held, which is crucial for the existence of the organization,
2. consenting to stakeholder participation in information-related decisions, and
3. providing or exchanging information, which allows the organization to pursue its basic goals of activity and to remain open to the environment. All these dimensions contribute to building trust in the organization. Information transparency described in this way is regarded by some scientists as an ideal or a model that is very difficult to achieve in normal economic activity [Thakor, 2015].

A lot of information at the level of the organization remains a secret, for example its business strategy. Some information at the management level may arouse controversy and be assessed not only on a rational but also emotional level. A specific type of information can become political and lead to open debates of its meaning. Politicizing information is subjective, often making it difficult to understand its main meaning.

Building trust in an organization and the information it disseminates is one of the activities most frequently indicated by communication specialists. According to the European Communication Monitor 2019 (the ECM project is a cyclical, annual study involving several thousand communication specialists from 27 European countries), over 89.3% of respondents in Europe consider trust as the most important goal of an organization's communication with stakeholders. Building trust in organization leaders obtains a slightly worse result in the presented research (79.1%). This information is quite important from the point of view of internal auditors and the tasks they face when carrying out an audit (not only at the stage of obtaining information, but also at the stage of presenting the results). It shows that in the area of communicating and building trust in organizations and

their leaders, the internal auditor has an important role to play – an internal or sometimes external expert who authenticates information from the organization.

Practitioners dealing with the subject of communication indicate (71%) that transferring the information they have to external auditors, while maintaining its full context, is very difficult to achieve. This is an indication for internal auditors that information may be seriously distorted during processing and duplication on the Internet. The old rule of "telephone" will apply here. Every third expert (surveyed as part of ECM2019) indicates a large problem related to maintaining transparency and effectiveness of communication, also within the organization. Problems with the internal flow of information and deterioration in the functioning of internal decision-making processes (as a result of the lack of necessary information) are indicated by over 35% of respondents. Summing up, it can be said that the implementation of transparent synergic offline/online communication is not easy to achieve by the organization.

A large amount of information available online causes difficulties in its assimilation. Hence, one of the trends observed over the last few years is the increased importance of visual materials/infographics in communicating, which in a simple and aggregated way will provide extensive knowledge about the described phenomena [European Communication Monitor, 2017]. Among European communication professionals, 94.4% believe that visual communication will be increasingly important for most organizations (69.0%). This belief arose on the basis of the increasing number of orders for visual materials over the last few years (86.0%). Most of the organizations that participated in the ECM2017 study declared the use of a large number of materials such as infographics, photos and information films. However, only 4.6% of the surveyed communication specialists declared that they had introduced an advanced process of managing this type of information. Only 12.1% of the respondents had high competencies in this field, and 53.3% assessed their skills in this area as low and very low [European Communication Monitor, 2017].

From the perspective of the activities of internal auditors, this may cause difficulties in obtaining good-quality material for analysis (no indexation of information). At the same time, it cannot be ruled out that there is no key information in the infographics, photos or statements of the representatives of the organization, which is registered and broadcast on the Internet, allowing for the correct implementation of the audit and the formulation of accurate final conclusions.

In the first two decades of the 21st century, there were few programs available on the market that would automatically (without human participation) and effectively monitor and capture information contained in graphic messages (most PDF documents are visible to content indexing robots, the PDF documents which are a problem, were not created immediately in digital form or were not digitized using OCR programs, but were created, for example, from photos or photocopies – PDFs created from images).

According to communication experts, social media and social networks, including Facebook, Twitter, GoWork, LinkedIn and blogs are perceived as the most important channels of communication with the organization's stakeholders (90.4%). The analysis of trends until 2035 indicates that technologies related to new media and social media complement, but do not replace, traditional channels of information exchange. Therefore, correct information analysis requires the internal auditor to review the content and documents available offline and online.

The problem that internal auditors may face in the near future is the quality and credibility of information remaining in the resources of the audited units, but created automatically or semi-automatically by bots operating in social networks. While information generated in a semi-automatic manner is largely based on information prepared by a human being, more and more often we will have contact with information that is independently developed and made public by bots. It will be created according to self-learning algorithms based on the information that bots search for in the organization's resources, creating new content from it. Assessment of this type of content will be very difficult not only in terms of its credibility, but also its effects on the analyzed organization. At the same time, it will be very difficult to identify the people responsible for the creation and distribution of this type of information.

Many people are not aware of the scale of the problems that will arise with the spread of bots, while other may deliberately depreciate its reach. The issue of social bots and the optimization of algorithms used by bots to create content on the Internet is the subject of many public discussions, but so far mainly on the grounds of ethics and threats resulting from the use of artificial intelligence (AI). 73.2% of communication specialists agree with the statement that social bots are an ethical challenge for the organization. At the same time, 4 out of 10 respondents see additional opportunities resulting from the use of bots, and 14.7% of communication departments use or plan to use bots in the coming years. In this context, the data showing that only 35.9% of spe-

cialists in Europe follow the debate on the use of bots in communication on an ongoing basis, while 15.9% do not have any knowledge in this field [European Communication Monitor, 2017]. Thus, bots and their "creativity" may be an area with a large amount of information in the near future, requiring detailed verification from auditors. With the spread of artificial intelligence, the model of communication "many-to-many" will not necessarily mean "many people." Part of the communication in this model will take place at the person-bot, people-bot, bot-bot, people-bot-bot-people level, and in this respect there are a number of challenges not only of technical and technological nature, but also related to communication and ethics.

The Internet allows for information to be shared. On the one hand, it widens the group of recipients, and on the other hand, it creates risks related to the processing and further distribution of the changed original information. The viral spread of the message, which is beyond the sender's control, while in the normal situation, for example in marketing activities, is desired by the sender, in the case of the activities of an internal auditor, it may pose a threat to information processing and correct reasoning based on the source material. This, in turn, leads to the conclusion that the information obtained on the Internet can only act as a "signal" and requires very careful verification based on the information collected from internal sources of the audited organization. It is necessary to distinguish between conscious and unconscious falsification of messages on the Internet. The research of the Watchdog Polska Civic Network [PortalSamorzadowy.pl, 2019] proves the advantage of the unconscious nature of errors in communication. They show that only 26% of communes entrust tasks related to communication to people in managerial positions. Most of the communication on the Internet is carried out by employees in administrative positions or IT specialists. Therefore, it cannot be ruled out that the information published on the Internet will contain factual errors. In the work of an internal auditor, it should be important not only to identify these errors, but also to define their essence and the intention of the sender. In some cases, unethical behavior may occur, which is based on the conscious shaping of the desired reactions of message recipients by means of intentionally distorted information posted on the Internet.

The criteria for assessing the quality of information from the Internet largely coincide with the criteria for verifying information obtained from traditional sources such as documents, and it should be verified for accuracy, timeliness, completeness, consistency, integrity and credibility. It is important that the credibility verification concerns not only

the information itself, but also the source from which it came from and the source that published it [Kos-Łabędowicz, 2015].

The revolution of information technology, the digitization of content, and the development of the Internet mean that the problem of information scarcity has been replaced by its excess. The increase in the speed of information processing by computers, the development of artificial intelligence and the improvement of algorithms used to search and analyze information improve the entire process at every stage of working with information, i.e. planning, standardization, acquisition, indexing, translation, analysis, visualization and distribution of the obtained information. Unfortunately, due to technical, technological and financial barriers as well as skills shortages, the use of these solutions is not very common yet. According to Saramak [2015], improving the efficiency of obtaining and processing information is possible with the use of software commonly used to, for example, create digital databases. Digitizing documents with the use of OCR programs may be the initial stage of searching for detailed information, but not with the use of archivists, but with database queries. Dissemination of biometrics gives access to databases and systems that use it. In this way, we can obtain information about lotteries, downloaded or edited documents and their author. The development of automatic document translation makes it possible to use documents written in a foreign language. Saramak [2015] indicates that this type of software requires specialized knowledge. However, based on popular translators available on the Internet or programs that recognize speech or text, we can see that the progress in this field is growing rapidly and the products currently available on the market are more and more advanced, and at the same time intuitive and easy to use. The advantage of using the technologies and software described above is the creation of a comprehensive analytical system that allows for the automation of work in the field of obtaining data and preliminary analysis.

Saramak [2015] states that big data analytical techniques are most often used by secret services, agencies specializing in white economic intelligence, and large corporations. They make it possible to combine and analyze the links between data, the basic feature of which is large dispersion in various IT systems (documents, monitoring, logging into mobile phone base stations, payment with company cards, etc.).

The advantage of real-time data analysis is obtaining information material about the studied populations, which is not inferior in quality to information obtained using classical methods. The difference is that obtaining information using the classic method

takes much more time. Another advantage of automating the process of data acquisition and analysis is the ability to obtain information that is not available directly from the level of web solutions. AI-based solutions can automate the process of obtaining information from the "deep web" (not to be confused with dark web), which require interaction (databases on websites have only an interface, obtaining detailed information in such a situation is possible only after formulating an appropriate query).

Big data analysis are not yet homogeneous in nature, although more and more often it is understood as working on sets of information of large volume, high variability or large variety that require new forms of processing in order to support the decision-making process, discovering new phenomena and process optimization [Saramak, 2015]. The nature of big data is well reflected by the 4V concept, i.e. four factors that define sets of information: Big Volume (large amounts of data), Big Variety (large variety of analyzed data and information), Big Velocity (instant data processing in real time) and finally Big Value – high cognitive value obtained as a result of the "big data" analysis [Słoniewski, 2014].

As mentioned above, scattered data used in big data analysis are characterized by high generality, hypothetical anonymity (non-individualized data stream) and may relate to many aspects, e.g. the length of visits to a website or the length of a telephone conversation. Their value is revealed when they are combined into larger sets, which allow for the analysis and estimation of the probability of occurrence of phenomena difficult to predict using traditional methods, e.g. the behavior of large groups of people. The problem in big data analysis is the very high costs of developing and maintaining the infrastructure needed to carry out this type of analysis, access to distributed data (ownership of individual databases), legal limitations in sharing and exchanging this type of information, and the general reluctance of the society regarding its attempts to "control social behavior." This is particularly evident in the COVID-19 debate and the ability to predict and prevent disease through cell phone data retrieval. Earlier, a negative example of irregularities in big data analysis was provided by Facebook and its business partner, Cam-bridge Analitycs. Cambridge researchers, by combining data from two sources and analyzing the activity of Facebook users, were able to determine their origin, race, intelligence level, sexual orientation, addictions or political views with an accuracy of 80-90%. Research carried out by scientists from the Massachusetts Institute of Technology has shown that, based on the analysis of telecommunications data (information about who

connected to whom and when and about the location), it is possible to determine the behavior of individual people (e.g. where a person will be in within the next 12 hours) with 80-90% accuracy. The growing importance of new techniques raises the issues of educating new staff and competencies from universities even more [Plant, Barac, Sarens 2019].

3.4. Lies, sources, forms and methods of detection

The number of negative events in the socio-economic environment as a result of incorrect or false information is constantly increasing [Rydzak, 2020]. According to research on trust presented at the World Economic Forum in Davos, nearly 70% of people in the world are afraid of the negative effects of false information, and almost 60% are unable to verify or distinguish false information from the truth [Edelman Trust Barometer, 2018, hereinafter: ETB]. According to the research by Kantar Public [2018], 84% of Poles see the problem of false information, while 49% of Polish respondents believe that fighting false information is the job of specialists. The increase in expectations towards communication experts is confirmed by the 2018 ETB survey, according to which trust in the media and journalists has increased. With the growing problem of fake news between 2017 and 2018, an interesting phenomenon occurred — trust in journalists increased by 5%. It is worth emphasizing that until 2017 the level of trust in the media and journalists had been systematically dropping for many years.

The feeling of low quality of information received from institutions and companies, which does not meet the information needs of stakeholders, with a low level of trust in the sender, results in searching for information in additional sources, through so-called multi-screening. People, trying to reduce the uncertainty resulting from the asymmetry of information, verify the signals sent by the institution or company in other sources. The Internet has facilitated the speed of such verification and lowered its costs to some extent. However, these savings may be just an illusion. The problem is the deteriorating quality of information available on the Internet. Its low quality is indicated, among others, by studies by Edelman Trust Barometer [2018, 2019] or Kantar Polska [2018].

Lying comes in many forms and providing completely false information is an obvious form of lying. However, not talking about something or keeping quiet, or hiding facts or falsifying them in part, can be fraudulent. Concealing information is more difficult to detect than just a lie. Providing false information requires a lot of whistleblower

involvement. They need to rethink the consistency of the false information with others that will appear in his statements, and also remember what was said to avoid the detection of the lie in the future. The whole process of lying is therefore much more difficult for a liar than providing true information. Concealing information involves the human brain to a lesser extent. The interlocutor does not have to control themselves as much as when speaking untruths, and thus can maintain their current, natural style and pace of speech.

The ability to assess the credibility of people and the information they provide has a fundamental impact on the effectiveness of internal audit and a positive assessment of the auditor's work. At the same time, it is worth realizing that the lie detection methods are not free from errors, and the final assessments made on the basis of individual methods may also be incorrect. Research has shown that people without training in lie detection are statistically able to detect a lie at a level similar to that resulting from the case. Thus, internal auditors should not undertake random activities, and the analysis should be comprehensive and based on reliable knowledge. Such a procedure seems ineffective, as it takes the time of the auditor, but on the other hand, a diagnosis based on false information undermines the essence and purpose of internal audit.

One exception to the rule in the interlocutor's behavior does not mean that the person is lying. A single deviation is purely a solitary observation that requires further verification or investigation. Frequent blinking is not necessarily fraudulent, but may indicate health problems. Only the emergence of additional symptoms that occur in situations in which people lie, such as excessive stiffening of the body, restriction of natural, previously observed behaviors, can give rise to suspicion of fraud. The literature on the subject indicates a number of non-verbal behaviors that, to a varying degree, allow for the identification of a liar. Each time, however, it is emphasized that there is no singular indicator that ensures that someone is lying. Therefore, it is postulated to use as many methods and indicators as possible in detecting lies to separate the real information from the false.

In order to correctly identify deceptive signals, the internal auditor must have prior knowledge of an individual's behavioral pattern. We must ensure that the knowledge and evaluation of the interlocutors does not arise based on the subjective image of the fraudster created in the mind of the auditor on the basis of stereotypes. Bad dress or inappropriate behavior, or one that the auditor would not tolerate, does not yet make the other person a fraud. In the literature on lie detection, it is emphasized that in order to

draw reliable conclusions, we must first establish the person's base-line behavior [Peszko-Sroka, 2012]. Such a pattern can be established by first conversing with someone about neutral and safe topics, but the best possible solution is to build relationships and knowledge about the behavior of individual people over a longer period of time. Thanks to this, the knowledge we will have about a given person will be complete and less prone to errors that may appear during random assessment of the natural behavior of individual employees of the controlled institution. Only after collecting this information, the internal auditor can start the main task, which is obtaining information necessary to carry out the audit, and observe changes in the behaviors of the audited during the interviews. These can be either the disappearance of a previously existing behavior or the emergence of a new reaction. A person trying to hide the truth tries to control the situation by adjusting their behavior to the changing conditions of the environment. The goal is to avoid exposure. A person who is lying, when under pressure or burdened with additional activities that will have to be performed during the conversation, may lose control and give a contradictory answer (verbal and non-verbal) to the same question. Performing an additional activity during the conversation may not only distract the interlocutor into making a mistake, but can also be a deliberate maneuver used by people to conceal the truth and distract the internal auditor. Therefore, the assumption that an additional activity during the interview is a technique beneficial only for the auditor, and that one symptom confirming a lie is incorrect.

Even when there are certain signs of lying, we must assume that it is more likely that the person is deceitful and not necessarily lying. Knowing people and their behavior is important in the work of an internal auditor, as it allows to reduce the risk of committing a mistake in assessing the quality of the obtained information, however, it does not completely eliminate this risk. Full knowledge of individual people allows us to notice differences and changes in their behavior, but we must forget that people are different, and the periodic change in their behavior may have multiple causes, not necessarily related to the workplace. All people differ to a greater or lesser extent from one another. What for one person will be the norm in behavior, for another it may be a deviation. After all, an artificial smile and lack of movement do not have to prejudge an attempt to hide the truth, but may indicate embarrassment in the situation that has arisen. An introvert will in most cases have a less expressive manner of expression than an extrovert, which does not mean that introverts lie more often. Comprehensive observation of behavior change in

many areas and prior knowledge about the interlocutor is one of the five main methods indicated by experts [Ekman, 2006; Nasher, 2011; Anna Peszko-Sroka, 2012].

Another method of checking the credibility of an interlocutor is based on formulating questions or statements that provoke them to react, for example, by the ambiguity of the question itself, in which there is a suggestion of some link or irregularity. Such a question should be perceived by innocent people as a simple request to supplement the presented information. A liar may develop a defensive reflex as a result of perceiving a question asked in this way as a form of accusation directed at them. Another method, or rather a group of methods for detecting fraud in information messages, is the diagnosis and analysis of interlocutors in terms of the emotions they exhibit, which usually accompany the telling of lies. Emotions are a set of psychophysiological changes in the human body that affect not only physiological arousal (hormonal changes, muscle tension, uncontrolled tics), but also changes in the sphere of the psyche and their emotional states (e.g. feelings of fear, anxiety, anger, irritation, joy or disruption of cognitive processes). Ekman [2006] showed that lying is usually accompanied by a sense of fear, joy from lying and guilt. In addition, he found that they are noticeable not only during direct conversations, but also during public speeches. Being aware of this allows us to assume that the detection of a lie may occur not only during a direct conversation, but also when the auditor is only an observer. Thus, a useful research technique that can be used in internal audit is participant observation, as described in the previous section. Deliberately stimulating the interlocutor's emotions, for example, fear or stress by the auditor, should depend on the interlocutor's initial attitude. At the same time, one should remember the skillful intensity of the emotions released. Typically, light fraud is accompanied by a low level of perceived anxiety, while in situations where the effects have serious consequences for the liar, if they are detected, the level of perceived fear should be very high.

Another method of detecting insincerity refers to the principle of disharmony in communication. Consistency in behavior, appearance and formulated content may be evidence of telling the truth. The occurrence of inconsistencies in the messages flowing from individual areas may encourage caution in assessing the information received. The occurrence of inconsistencies or even contradictions between verbal and non-verbal communication is a prerequisite for the initial assumption by the auditor that they are dealing with a liar.

Some scientists indicate that it is non-verbal communication that should be considered the basic indicator of cheating [Bojek and Bojek, 2008], others emphasize that too much faith in detecting lies on the basis of only non-verbal communication, or even on the basis of individual observations of deviations from the norm in behavior people lead to wrong conclusions [Nasher, 2011]. Supporters of non-verbal communication in detecting lies base their conviction that this method dominates on several assumptions. One of them is the assumption that the possibility of assessing the credibility of another person based solely on verbal messages is very limited due to the length of the speech. The longer the conversation lasts, the greater the possibility of detecting inaccuracies. However, usually, in normal situations, the conversation is too short to correctly verify the credibility of the information received. In such short conversations, it is the non-verbal messages and their coherence with verbal messages that become the main basis for assessing the credibility of people.

Based on the research, a number of observations have been formulated, the occurrence of which may indicate contact with a liar [Bojek and Bojek, 2008; Nasher, 2011] and therefore may be useful in the internal auditor's information gathering stage. Firstly, liars usually have a more rigid attitude in their statements and try to consciously exclude or limit the appearance of small gestures (manipulators) during the conversation. They do it consciously, fearing the detection of a lie. Hence, the lack of such small gestures, rather than their existence, may be a signal for the auditor about an attempt to falsify the information provided. Secondly, we must pay attention to the fact that facial expressions will not always be a reliable source of information, because of all the elements of non-verbal communication, it is the most susceptible to conscious human control. Hence, the information from facial expressions is not fully reliable. The sender may deliberately shape their facial expressions to mislead the recipient. To avoid possible misinterpretation, it is recommended focus on micro-momentary facial expressions of emotion, which are a facial expressions that last only a fraction of a second. They express genuine emotions and are more difficult to control than the facial expressions during conversation. Third, the eyes play a very important role in detecting lies. It is widely accepted that avoiding eye contact is fraudulent. However, this approach is flawed as detailed research has shown that eye contact during cheating may even increase slightly. Such a phenomenon may occur when people who lie are not afraid of being exposed [Akehurst et al., 1996]. Another indicator of deception is the change in eye pupil diameter. This can occur not only under the influence of light, but also under the

influence of experienced emotions. Changes in the pupil diameter occur unconsciously and are therefore considered a good source of information about the interlocutor's lies. Unfortunately, observing the pupil in normal conversation is not easy. In case of difficulties, it is worth focusing on the frequency of blinking, because research has confirmed that when lying there is an uncontrolled increase in the frequency of blinking. The reliability of this indicator is comparable to the information obtained in measuring pupil size. In the case of laughter, the interpretation seems easy. One should only distinguish between a fake smile and a real smile. A true smile that expresses positive emotions engages the circular muscles of the eye, while in a fake smile they remain motionless. This translates into changes taking place in the facial expressions, and regarding the cheeks and eyebrows, the lifting of the cheeks and the lowering of the eyebrows indicate the work of the circular muscles and thus the sincerity of the smile, behavior and intentions of the interlocutor.

The deception detection methods described in this section are not flawless. In the case of internal audit, the auditor has the option of extending the interview time. They also have the ability to interview multiple people and collect as much information as possible to detect contradictions regardless of the observations made in the field of non-verbal communication.

The methods of detecting lies also include the changing chronology of asking questions. During the conversation, questions can be asked according to the chronology of events, one can ask questions in reverse order, and then ask additional questions about the "in-between" events. The entirety of this type of action is based on the assumption that a distortion of the chronology will lead to the interlocutor getting lost in their own false narrative. In such a situation, the role of the internal auditor will not only be to plan the interview scenario, but also to identify inaccuracies in the information provided. This type of technique should involve a large number of open-ended questions for which the interlocutor must create a description of the events. Closed questions give the opportunity to withdraw or deny a lie by indicating that the information was imposed or at least suggested by the auditor. However, research indicates that the efficiency in detecting fraud is also positively correlated with independence and objectivity, the number of activities performed, the adoption of a systematic approach to assessing the effectiveness of risk management and the size of the enterprise [Hazami-Ammar 2019]. In turn, according to the Indonesian market research, the auditors have too little preparation to be ready to detect fraud [Salleh & Suryanto 2019].