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FACTORS AFFECTING MENTORING SERVICES – CROSS-NATIONAL PERSPECTIVE

EWA ROLLNIK-SADOWSKA   URSZULA RYCIUK
EWA GLIŃSKA   VAIDA BARTKUTE-NORKUNIENE
RASA JODIENE   SANDRA SPRUDZĀNE
ANDA ZVAIGZNE   GILBERTO MARZANO
VESELINA JECHEVA

Ewa Rollnik-Sadowska
Bialystok University of Technology,
Bialystok, Poland
ORCID 0000-0002-4896-1199

Corresponding author:
e-mail: e.rollnik@pb.edu.pl

Urszula Ryciuk
Bialystok University of Technology,
Bialystok, Poland
ORCID 0000-0001-6410-9601

Ewa Glińska
Bialystok University of Technology,
Bialystok, Poland
ORCID 0000-0002-2121-0125

Vaida Bartkute-Norkuniene
Utena University of Applied Sciences,
Utena, Lithuania
ORCID 0000-0003-2952-4804

Rasa Jodiene
Utena University of Applied Sciences,
Utena, Lithuania
ORCID 0000-0002-0412-5965

Sandra Sprudzāne
Rezekne Academy of Technologies,
Rezekne, Latvia
ORCID 0000-0002-0344-3662

Anda Zvaigzne
Rezekne Academy of Technologies,
Rezekne, Latvia
ORCID 0000-0001-5762-8622

Gilberto Marzano
Rezekne Academy of Technologies,
Rezekne, Latvia
ORCID 0000-0001-6330-4042

Veselina Jecheva
Burgas Free University, Burgas, Bulgaria
ORCID 0000-0003-3798-6283

A B S T R A C T

The research aims at the identification of factors influencing mentoring services with a particular emphasis on the country of origin of the mentor and the mentee. The quantitative research was conducted in four Central and Eastern European countries, i.e., Bulgaria, Poland, Latvia and Lithuania and one Southern European country, Italy. The implemented methodology covered Exploratory Factor Analysis (EFA) and reliability analysis, which were performed to identify factors influencing the process of communication in the mentor–mentee relationship. Moreover, to diagnose statistically significant differences between individual countries in terms of factors influencing the effectiveness of communication, the Kruskal–Wallis H Test and the Mann–Whitney U Test, as well as pair-wise comparisons, were used. Factors influencing communication in the mentor–mentee relationship are mentor traits, mentor's personal background, mentor's professional background, non-verbal communication channels, communication barriers, written communication channels, online communication, quality of content and the ability of content processing by the mentee. There are differences in the perception of individual factors in the analysed countries. So far, no cross-country comparison has been conducted of factors influencing mentoring services. As a direction for future research, more detailed research can be recommended concerning factors of the mentoring process in such countries as Lithuania, Latvia and Italy by developing separate models (or EFA) for mentors and mentees.

K E Y   W O R D S

mentoring services, mentor, mentee, Exploratory Factor Analysis

INTRODUCTION

Mentoring is a critical relationship between a less-experienced mentee and a more-experienced mentor in an area of expertise from which one is seeking guidance on a particular subject (Patel et al., 2022). It is the mentor who plays the central role in the mentoring process. That role is multifaceted as mentoring services include, but are not limited to, advocating, teaching, role modelling and advising (Choi et al., 2019). Mentoring services can be provided not only by individuals but also by organisations (Lis & Lis, 2019). Mentoring services have been

shown to play an important role in the mentee's success in both public and private sectors, aiding in the promotion and decreasing burnout (Boitano et al., 2021). The results of the quantitative meta-analytic review provide some evidence of the effectiveness of mentoring services, with an emphasis on research designs that compared the career outcomes of mentored individuals to non-mentored individuals. The overall mean effect size of mentoring services was significant, indicating that mentoring does improve career outcomes for individuals (Underhill, 2006; Širvaitytė, 2019).

The effectiveness of the mentoring services is very often connected with the mentor's qualities, including being knowledgeable, resourceful, and skilful, as well as mentor communication skills (Eller et al., 2014). However, there are also other aspects of effective mentoring, such as content quality, level of social engagement or selection of communication channels (Rollnik-Sadowska et al., 2022).

Eller et al. (2014) distinguished eight themes describing key components of an effective mentoring relationship: (1) open communication and accessibility; (2) goals and challenges; (3) passion and inspiration; (4) caring personal relationship; (5) mutual respect and trust; (6) exchange of knowledge; (7) independence and collaboration; and (8) role modelling.

Moreover, the effectiveness of mentoring can be connected with cultural context (Peterson, 2007), especially the specificity of the country in which mentoring is provided. The determinants of mentoring effectiveness may also depend on the characteristics of the industry in which mentoring services are provided (Gibson, 2004). The research objective of this paper involves the identification of factors influencing mentoring services with particular emphasis on the country of origin of the mentor and the mentee.

The quantitative research was conducted in four Central and Eastern European (CEE) countries, i.e., Bulgaria, Poland, Latvia and Lithuania and one Southern European country, Italy. The group of CEE countries, similar in cultural background and economic development (Suciu et al. 2018), was contrasted with the case study of Italy.

As part of the selected research process, the following research questions were subject to an in-depth analysis:

RQ1: What factors influence the process of communication of mentoring services?

RQ2: Are there any differences between selected European countries in terms of factors influencing communication in the mentor–mentee relationship?

This paper presents a literature overview defining the participants of the mentoring process, communication in the mentor–mentee relationship using differentchannels, as well as barriers in the mentor–mentee communication. Subsequently, the authors outline the methodology and the outcomes of the primary research conducted in five European countries. The statistical analysis allowed for the identification of factors influencing mentoring effectiveness and peculiarities of countries selected for the analysis in terms of the mentor–mentee relation. The discussion of the results of the quantitative study following the literature investigation allowed for indicating directions for future research.

1. LITERATURE REVIEW

1.1. MENTOR AND MENTEE DEFINITION AND RELATIONSHIP

The concepts of mentor, mentee and mentoring have been scientifically researched since the 1960s (Berlew & Hall, 1966; Gould, 1972; Webber, 1976; Schein & Van Maanen, 1977; Levinson et al., 1978; Kram, 1985) and given the widespread practice of mentoring, today there are many different definitions available of mentoring, describing it as a transfer of knowledge from experienced mentors to mentees.

The idea of mentoring traces back to Homer's Odyssey, which includes a character named Mentor (goddess Athena in disguise), who helps Odysseus's son Telemachus find the strength (menos) and connections (napios) necessary to overcome the challenges (Rosselot-Merritt & Bloch, 2020).

Mentoring relationships (mentorships) are dynamic, reciprocal, personal relationships in which a more experienced person (mentor) acts as a guide, role model, teacher, and sponsor of a less experienced person (protégé). Mentors provide protégés with knowledge, advice, counsel, support, and opportunity in the protégé's pursuit of full membership in a particular profession (Baltov et al., 2020).

A mentoring relationship is based on the mentor's knowledge and experience, which allows the mentee to consider the opportunities and resources at his/her disposal and use them to solve a particular problem or achieve a particular goal (Konstantinova, 2008). Sullivan (2000) stresses a strong relationship

between the mentor and the mentee that creates a safe environment for the growth and development of the mentee.

Business mentoring refers to a systematic relationship based on long-term and voluntary support between a successful and experienced businessperson, a mentor who shares his/her knowledge, experience and beliefs with another businessperson, a mentee who is ready and willing to gain experience from the relationship and develop his/her competence. Some researchers point out that mentoring does not represent a counsellor's job but dialogue and idea sharing. The mentor helps the mentee gain a broader and more comprehensive understanding of the way a business operates and opportunities for its growth and encourages him/her to take action (Latvian Rural Advisory and Training Centre).

In recent years, in view of changes in the geopolitical situation, including the COVID-19 pandemic impacts and technological progress, some researchers (Haeger & Fresquez, 2016; Hernandez et al., 2018; Kunaka & Moss, 2019; Hilali et al., 2020; Marzano, Pellegrino & Zorzi, 2020; Hussey & Campbell-Meier, 2020; Ngongalah et al., 2021; Marshall et al., 2021; Doyle & Ossorno De, 2021; Sera & Johnson, 2021; Laster et al., 2021; Lin, Cai & Yin, 2021) have undertaken to update and supplement concepts and processes in line with scientific novelty, e.g., by stating that mentoring represents the quality of a relationship in comparison with a different category of relationship and that mentoring should be based on compassion, friendship and mutual vulnerability, thereby showing genuine care for the mentee. Recent research studies (Marshall et al., 2021) have found that the success of mentoring results from active and respectful listening and a willingness to learn and use opportunities for personal growth.

Intellectual openness, distance and conflict are enumerated as important elements in mentoring. It shows that mentoring dynamic comes with challenges. Mentors should encourage mentees to feel free to express new ideas. For mentors, mentoring can offer a fresh perspective, new avenues of knowledge to pursue, or different approaches to try. Distance may shed light on how the two can play a significant role in a mentoring relationship, but conflicts may truly involve conflicts of interest in which the goals of one person in the mentoring relationship are inherently out of sync with the goals of the other, or when there is an ethical consideration that requires a more critical look at the mentoring relationship itself (Rosselot-Merritt & Bloch, 2020).

1.2. COMMUNICATION IN THE MENTOR–MENTEE RELATIONSHIP

Communication can be understood as a mechanism of mutual relations, which establishes contacts as well as a set of all means and methods for transferring information to influence the behaviour of people. A key element in this definition is the meaning. Communication has the transfer of meaning as the main objective (Naumovski et al., 2017).

Communication is crucial in the mentor–mentee relationship, and effective communication is a condition of the effective mentoring process (Farmer, 2005). It is crucial to ensure that communication between the mentor and the mentee is effective (Rollnik-Sadowska et al., 2021). Effective communication can be defined as a process for a message to be received and understood directly as the sender intended. However, this situation is not always achieved due to various reasons, including incorrect encoding and decoding of the message, interfering messages and an incorrect choice of communication channel (Guffey et al., 2009; Scheming, Mason, 2013; Gulc, 2021; Ibidunni et al., 2018). The most important thing to remember is that communication is a two-way process. Both sides must be involved in this process. There must be a giver and a receiver, a speaker and a listener. If one of the two sides is not functioning properly, business communication will break down.

Effective communication combines verbal and non-verbal forms (Scheming & Mason, 2013). Verbal and non-verbal communication is equally important in mentoring. It is crucial to have a good understanding of the information transmitted and received during communication. According to Kaul (2015), verbal and non-verbal information must be adequate to each other because if the verbal information provided is "denied" by the body or eye movements, it can impair successful communication. Verbal communication uses words in conversation or speech to provoke mentors' and mentees' feelings, specific emotions and distinct functions in their comments to penetrate mentors and mentees instead of non-verbal communication, which is wordless communication (Lustig & Koester, 2010).

Verbal communication requires asking questions, listening carefully, trying to understand the mentee's concerns or needs, demonstrating a caring attitude, remaining open-minded, and helping to solve problems. There are many communication skills that mentors can utilise to effectively communicate

with mentees, including (I-TECH Clinical Mentoring Toolkit, etc.): active listening, emotional perception and stress/conflict management, asking questions and formulating sentences and giving and receiving feedback.

Mentors are more able to use self-awareness, connect with mentees, handle the intensity of the relationship, accurately assess the feelings of mentees, encourage mentee reflections on actions, utilise personal emotions and draw on them to be effective mentors, challenge mentees to deal with negative emotions, help mentees with character development, express empathy for mentees, exhibit good role modelling, urge mentees to reflect on learning and manage emotions. Mentees are more able to use self-awareness and understand emotions, be open and honest, listen and reflect, respect the advice of mentors and ask for help and manage emotions and stress. Mentees know that mentors understand how they feel and that their feelings are respected and valued (Opengart & Bierema, 2015).

Skills to give and receive feedback provide a systematic approach to developing better relationships, learning and improving performance and staying on track and achieving goals (Hattie & Timperley, 2005).

Non-verbal communication in mentoring helps to create a better image of oneself; understanding the non-verbal cues of the mentee will help the mentor communicate more effectively; helps to discover the mentee's true feelings towards their mentor and the mentor's words (Pfund et al., 2013). The mentee uses positive body language and non-verbal signals to demonstrate openness and undivided attention. In a great variety of situations, mentors and mentees can achieve their purpose more easily by improving the accuracy and effectiveness of their non-verbal communication (Leathers & Eaves, 2016).

A communication channel is the technical (or formal) side of the communication process that allows people to transfer information from the sender to the receiver and vice versa. A communication channel includes all the means for the creation and acceptance of a message, i.e., signs, language (including body language), codes, technical devices etc. (Sanina et al., 2017).

Communication channels and tools play a key role in the communication process while mentoring. The channel is the formal means of communication through which the sender's message travels, whether oral, written, electronic or otherwise. Choosing the right means or channels for the delivery of the message is essential for meaningful communication.

Fiske (2002) defined a channel as a physical means by which a signal (i.e., information) is transmitted and suggested dividing tools into three main categories, i.e., presentation tools — voice (intonation, pauses and logical accents), face and body; representative tools — books, pictures, photos, writing, architecture, interior etc.; mechanical tools — phone, radio, television and the Internet. The principle characteristics for understanding various communication channels are as follows (Sanina et al., 2017): reliability — a measure of certainty that the channel will function, meaning the likelihood that the communicative content (i.e., feedback or information) will be delivered; speed — how fast it is possible to obtain a result from communication, meaning either that information is delivered or a response is received; effectiveness — choosing the right channel or a combination of channels to solve a particular problem and to increase organisational development.

The communication effectiveness depends on the choice of the information channel. A particular channel could be a preferred option in certain situations or totally ignored in other circumstances. Channels can be used separately or combined with each other (Sanina et al., 2017). The most effective communication is face-to-face contact. The effectiveness of such communication is enhanced for two reasons: first, both verbal and non-verbal information is exchanged, and second, there is feedback. A less efficient channel is described by George and Jones (2012) as "verbal communication transmitted electronically". The authors refer to this channel as the telephone and videoconferencing, where communicators can transmit verbal information, some non-verbal information (tone of voice, intonation) and feedback. These authors consider e-mail to be an even more ineffective communication channel, depending on whether the e-mail message has a precise destination or not. The least reliable communication channel is written communication: newsletters, standard messages etc.

Communication is the primary relationship tool in organising the relationship between the mentor and the mentee. Effective communication is critical to different levels of employees and representatives in various fields. Failure to communicate effectively may cause miscommunication, distrust, anger, inefficiency and other negative outcomes. Effective communication promotes motivation and builds staff culture, while poor communication creates dissatisfaction (Tyler, 2016). Effective communication, by minimising strikes and lockouts, enhances intra-organisational relationships (Kelvin-Iloafu, 2016). Effective

communication and stakeholder engagement requires recognition that the subject of all the processes and lists are people and they cannot be categorised in the same way as inanimate objects (Bourne, 2016).

Three critical components of effective and qualitative communication — trust, transparency and active listening — build the relationship necessary to engage in challenging conversations (Salamondra, 2021).

Research on interpersonal communication has changed the communication perspective. It does not refer to people as senders and receivers but as communicators (Lane, 2016). Accordingly, people involved in the communication process both send and receive messages. The Transactional Model of Communication (TMC) forms the basis for many interpersonal communication theories (Barnlund, 2017; Stuart, Sarow & Stuart, 2007). It assumes that communication between two or more entities is dynamic, process-oriented and adapted or appropriated according to the context of the transaction. Communication involves the channel of communication (e.g., telephone, e-mail or letter), the source of communicators (e.g., interpersonal or impersonal), language (e.g., native or second) and the message type (e.g., mode of transmission and image, video, text or other). Social, relational, and cultural contexts also drive the transactional process of communication.

Furthermore, from a social psychology perspective, communication encompasses several extra-linguistic functions aimed at achieving such goals as persuasion, bargaining, dating, instruction, deliberation and flattery (Fig. 1).

The ultimate goal of communicator C's communicative actions is not just to enable receiver R to decode the symbolic message S as accurately and faithfully as possible, as in Shannon and Weaver's (1949) classical theoretical framework. Nor is the goal to conserve the logical truth value of the propositions inherent in S, as in propositional logic. Rather, the actual goal is for C to move R somewhere relative to a communication goal or reference topic T (e.g., to move R to do someone a favour, to buy a product, or to come to a party or a date, to share an idea or emotion etc.).

The development of a mentoring relationship depends on the perceptions and activities of both the mentor and mentee. If one or the other does not choose to engage actively, then the relationship will unlikely be as effective (Rosselot-Merritt & Bloch, 2020). Theoretical literature stresses the importance of two-way communication to make mentoring relationships work. For mentoring to be effective, mentees must be confident enough to manage the relationship and communicate openly with the mentor so that the relationship can be mutually beneficial. Two-way communication aims at information exchange by means of dialogue between the mentor and the mentee. It requires the sender of the information to listen to the experience of the mentee. It is called symmetrical communication and implies that the organisation (here, the mentor or the sender of information) reflects on its own policies and behaviour after considering the public's views (Wonneberger & Jacobs, 2016).

Mentoring service could be characterised as bilateral "communicative relations" that consist of verbal and non-verbal behaviour and whose goal is to
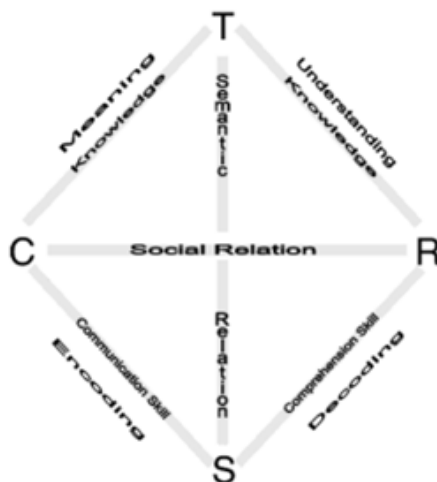

Fig. 1. General framework for the analysis of social communication processes
Source: (Fiedler, 2011, p. 4).

offer or request assistance. Performing this dialogue communication, mentors develop and give relevant messages that are referred to as specific communicative behaviour or one party's action aimed at benefitting someone or helping others (Burleson et al., 2002). If mentors encourage mentees to feel comfortable communicating with them, especially at the beginning of the mentoring relationship, this can set a positive tone for future communication (Rosselot-Merritt & Bloch, 2020).

1.3. Barriers to mentor–mentee communication

Communication barriers are defined as obstacles and factors disturbing the communication process and, therefore, making communication incomplete and ineffective (Scheming & Mason, 2013). Communication barriers lead to miscommunication and cause problems in the course of this process, such as causing defensive reactions, cutting off further communication, diminishing chances to identify options, and resulting in confusion or misunderstanding (Scheming & Mason, 2013).

Communication barriers can be external to participants, intrapersonal and interpersonal (Moore, 2013). External barriers can include organisational structure and available technology. Intrapersonal barriers involve such issues as personality, level of knowledge and emotional state. Interpersonal obstacles include the credibility of the sender as perceived by the receiver.

Communication between mentees and mentors must be based on honesty and professionalism to maintain an excellent inner climate. With a good relationship, communication with mentees is more sincere. Verbal barriers to communication that should be avoided include (Pfund et al., 2013) moralising, arguing, preaching, storytelling, blocking communication and talking too much.

Examples of non-verbal barriers to communication include shuffling papers, not looking directly at the mentee when they are speaking, and allowing interruptions or distractions. These barriers may lead to poor sharing of information, fewer questions being asked by the mentee, difficulty in understanding problems, uncomfortable situations and a lack of motivation on the part of the mentee.

Personal communication barriers relate to the human aspects of communication: the climate of relationships, values and attitudes. The following main personal barriers can be identified (Eisenberg, 2010; Jucevičienė, 1996):

- Different perceptions. If people have different value systems, they are likely to receive and interpret the same information differently. Some typical differences can be identified, such as different areas of expertise, different interests, needs, emotional state, different experiences and different social attitudes.
- Semantic barriers. Information is encoded using words. However, individual words can have different meanings for different people. Therefore, information can be interpreted differently.
- Non-verbal barriers. Verbal transmission of information is often accompanied by non-verbal interference, which can reinforce the impression or completely change the meaning of spoken words. Different cultural traditions play a very important role here. Different interpretations of certain gestures or actions can completely distort the meaning of the message.
- Poor feedback. This can arise for several reasons. It can range from a failure to listen, a fear of appearing incompetent, to a poor relationship, etc.

Hence, to overcome communication difficulties, it is advisable to present information in a way that is easy for the recipient to understand and use clear and understandable words. Also, it is important to anticipate the reaction of the recipient, get familiarised with the recipient of the communication, research his/her needs and avoid intermediaries. The sender of the information must choose the most appropriate transmission channel to minimise the distortion possibility. To avoid distortion, it is advisable to have a feedback loop with the information recipient.

2. RESEARCH METHODOLOGY

The research objective was implemented by means of conducting quantitative research. The research was conducted under the project Development and Introduction of a Communication Competencies Model for Enhancing and Maintaining a Business Mentor Network (DICCMEM), financed by the program Erasmus+, KA203 — Strategic Partnerships for Higher Education. The research was conducted among all project partners.

The research process consisted of three stages, involving answering the research questions (Fig. 2). The first stage involved quantitative research con-

ducted in four Central and Eastern European countries (Bulgaria, Poland, Latvia and Lithuania) and Italy using the CAWI (Computer Assisted Web Interviews) technique. The research tool was based on the theoretical model of communication in mentoring developed by Rollnik-Sadowska, Glińska and Ryciuk (2022), which consists of three basic components, i.e., channels and tools of communication (oral, written and non-verbal), content creation (information veracity, information clarity, provision of solicited information only, information completeness and regular updating, and speed of response) and levels of social engagement in the mentoring process (information, consultation, involvement and co-decision).

The research constructs comprised a total of 38 items (observable variables) and were divided into six groups related to oral channels and tools of communication, written channels and tools of communication, non-verbal channels and tools of communication, content creation, social engagement in the mentoring process, the effectiveness of communication (Table 1). To evaluate each item in the questionnaire, a five-level scale was used from "very unimportant" (1) to "very important" (5).

The structured questionnaire was sent to mentors who were qualified for the study in accordance with the adopted definition, in which the mentor is an experienced entrepreneur or manager with accumulated knowledge in entrepreneurship and who, with-

out consideration and willingly, devotes their time, experience and suggestions to help the new entrepreneur, who is oriented in the business environment. The mentor listens, asks questions, challenges the mentee's goals, studies, gives advice and shares their experience and contacts (Rollnik-Sadowska et al., 2021). The mentees were identified for the study by the mentors participating in CAWI, who had handed the questionnaires to the cooperating mentees.

The sample was selected in a quota-random way, and its structure (after removing the records with missing data) is presented in Table 2. The research was conducted among 638 respondents from Poland (213 respondents), Bulgaria (115 respondents), Latvia (102 respondents), Lithuania (106 respondents) and Italy (102 respondents). The structure of the respondents in terms of their status in the mentoring process is balanced since about 52 % of the sample represents mentors, and 48 % are mentees. 33 % of the respondents were from Poland, 18 % from Bulgaria, and 16 % each from Lithuania, Latvia and Italy. The age structure indicates that almost 33 % of the respondents were below 30 years of age, 26 % were 30–40, 25 % were 41–50, and 16 % were over 50. The educational background of the majority of the respondents (66 %) is non-technical.

In the second stage of the research process, the Exploratory Factor Analysis (EFA) and reliability analysis were performed. The aim of EFA was to obtain a minimum number of factors that include the

1
- CAWI
- 638 respondents, 5 countries

2
- Exploratory Factor Analysis (EFA)
- Reliability analysis
- Factors affecting the effectiveness of communication in the mentoring services (RQ1)

3
- Mann–Whitney U Test, Kruskal–Wallis H Test, pair-wise comparisons
- International comparisons (RQ2)

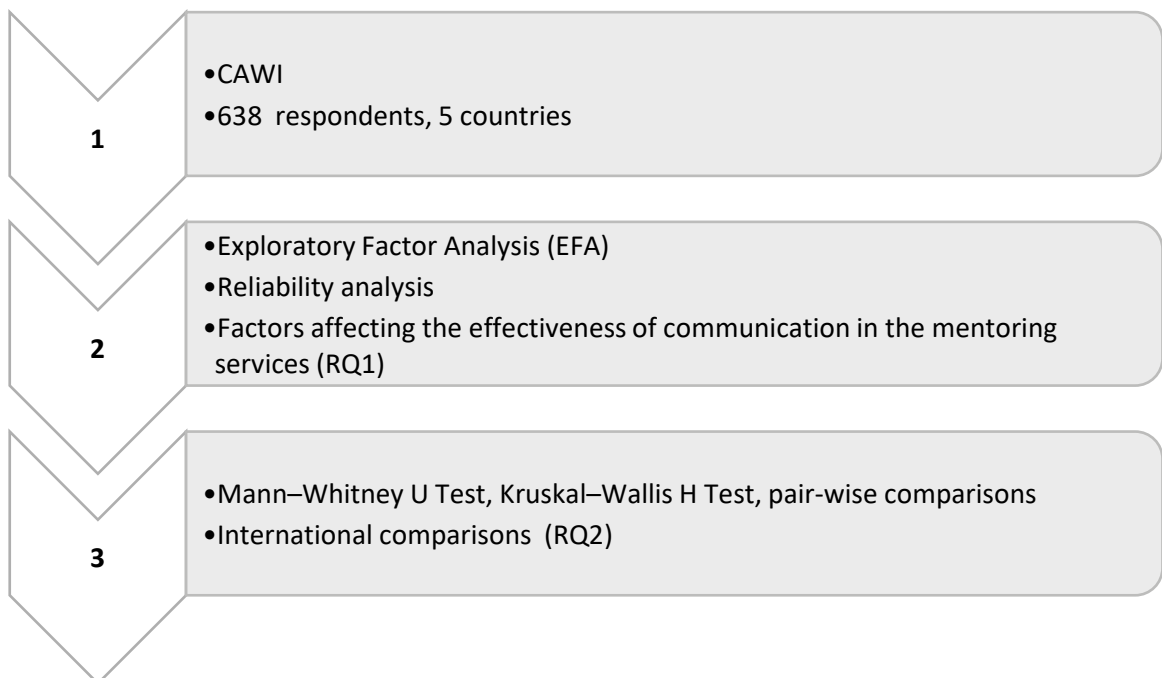Fig. 2. Stages of the research process

Tab. 1. Communication model observable variables

ORAL CHANNELS AND TOOLS OF COMMUNICATION
Face-to-face conversation
Face-to-face group meeting
Phone call
Video or audioconference
WRITTEN CHANNELS AND TOOLS OF COMMUNICATION
Written letters and memos
Reports
Presentations
Manuals
Notices and announcements
E-mail
Newsletter
Internal communication platforms
Document sharing software
Internal podcasts
Internal social media
Blog
NON-VERBAL
Facial expressions
Look and eye contact
Gestures
Posture and body orientation
Voice intonation
Physical distance
CONTENT CREATION
Information veracity
Information clarity
Provision of solicited information only
Information completeness
Information regular updating
Speed of response
SOCIAL ENGAGEMENT
Information
Consulting
Engagement
Co-decision
EFFECTIVENESS OF COMMUNICATION
Content is understood
The message leads to a specific action
Decisions made about the issue
The goal of the meeting has been reached
The goal of the mentoring process has been reached
Emotional support gained

Tab. 2. Structure of respondents [%]

Status	Mentor	52.4
	Mentee	47.6
Country	Bulgaria	18.0
	Poland	33.4
	Latvia	16.0
	Italy	16.0
	Lithuania	16.6
Age	Below 30 years old	32.6
	30 – 40 years old	25.9
	41 – 50 years old	25.5
	51 and more years old	16.0
Educational background	Technical	34.5
	Non-technical	65.5

maximum possible amount of information contained in the original variables used in the model and with the greatest possible reliability (Rossoni et al., 2016). The reliability analysis for each extracted factor was made using Cronbach's alpha.

In the third stage, an analysis was carried out to identify statistically significant differences between individual countries in terms of factors influencing the effectiveness of communication. The Kruskal–Wallis H Test and the Mann–Whitney U Test, as well as pair-wise comparisons, were used to answer the second research question.

3. RESEARCH RESULTS

3.1. FACTORS AFFECTING COMMUNICATION IN THE MENTOR–MENTEE RELATIONSHIP

Six items were excluded out of a total of 38 observable variables due to factor loadings below 0.5. As a result, 32 aspects describing the communication process became the basis for further analysis. To identify the structure of data and reduce the number of variables and observable variables, the Exploratory Factor Analysis (EFA) was performed.

The final rotated factor matrix for EFA is presented in Table 3. The use of EFA enabled identifying nine factors related to the specificity of communication in the mentoring process, namely:

1. Factor 1 (F1): Mentor traits.
2. Factor 2 (F2): Non-verbal communication.
3. Factor 3 (F3): Barriers to communication.
4. Factor 4 (F4): Written communication.
5. Factor 5 (F5): Online communication.
6. Factor 6 (F6): Quality of content.

Tab. 3. Factor loadings — EFA results

FACTOR NAME	VARIABLE	FACTOR								
		1	2	3	4	5	6	7	8	9
1. Mentor traits α=0.90	Mentor age	0.872								
	Mentor sex	0.866								
	Mentor nationality	0.851								
	Mentor ideological views	0.738								
	Mentor social status	0.720								
2. Non-verbal communication α=0.83	Gestures		0.807							
	Posture and body orientation		0.795							
	Look and eye contact		0.704							
	Facial expressions		0.646							
	Voice intonation		0.512							
3. Barriers to communication α=0.79	Semantic barriers and obstacles			0.679						
	Stylistic barriers and obstacles			0.654						
	Phonematic barriers and obstacles			0.614						
	Psychophysiological barriers			0.603						
	Social barriers and obstacles			0.574						
	Logical barriers and obstacles			0.573						
4. Written communication α=0.72	Reports				0.671					
	Presentations				0.623					
	Written letters and memos				0.593					
	Manuals				0.515					
5. Online communication α=0.70	E-mail					0.686				
	Internal social media					0.671				
	Document sharing software					0.618				
6. Quality of content α=0.73	Information veracity						0.674			
	Information clarity						0.609			
	Information completeness						0.569			
	Information regular updating						0.554			
7. Content processing α=0.69	Filtration							0.614		
	Attitude to the communicator							0.610		
	Source reliability							0.602		
	Selective listening							0.573		
8. Mentor's personal background α=0.66	Openness								0.769	
	Honesty								0.546	
1. Mentor professional background α=0.64	Experience									0.750
	Education									0.554

Extraction Method: Principal Axis Factoring.

Rotation Method: Promax with Kaiser Normalisation.

a. Rotation converged in 7 iterations.

Tab. 4. Reliability analysis

Factor	Mean	Standard Deviation	Minimum	Maximum	Number of Items	Cronbach's Alpha (a)
1. Mentor traits	2.25	0.92	1.00	5.00	5	0.90
2. Non-verbal communication	4.22	0.58	2.20	5.00	5	0.83
3. Barriers to communication	3.45	0.71	1.00	5.00	6	0.79
4. Written communication	3.67	0.69	1.00	5.00	4	0.72
5. Online communication	3.47	0.81	1.00	5.00	3	0.70
6. Quality of content	4.46	0.51	2.75	5.00	4	0.73
7. Content processing	3.96	0.65	1.00	5.00	4	0.69
8. Mentor's personal background	4.33	0.62	1.50	5.00	2	0.66
9. Mentor's professional background	3.70	0.89	1.00	5.00	2	0.64

7. Factor 7 (F7): Content processing.
8. Factor 8 (F8): Mentor's personal background.
9. Factor 9 (F9): Mentor professional background.

In the next step, the reliability analysis for each extracted factor was conducted using Cronbach's alpha coefficient (Table 4). In all cases, the result is higher than the desired value of 0.60–0.70 (Nunnally, Bernstein, 1994), and it is particularly acceptable for social science research (Greene, 2008).

3.2. Comparison between countries

With regard to RQ2, it is particularly important to capture the differences between the countries participating in the survey. Table 5 summarises the descriptive statistics of each extracted factor. The results show differences in the perception of individual factors in the analysed countries, indicating the need for an in-depth analysis of differences between countries.

The first test used for intergroup comparisons was Kruskal–Wallis H Test (Table 6). It is a non-parametric test verifying if one of the samples is different from the other. For this research, the country was selected as a grouping variable. The results of the Kruskal–Wallis test prove significant country differences for all nine factors.

The Kruskal–Wallis Test does not identify where or how many differences actually occur. Therefore, a test procedure for making pair-wise comparisons is needed (Ostertagova et al., 2014). Pair-wise comparisons between countries ensure answering the question as to which of the analysed groups differ from each other (Appendix 1). The perception of the significance of F1 (mentor traits) differed in such pairs

of countries as Lithuania and Bulgaria, Lithuania and Italy, Poland and Latvia, Poland and Bulgaria and Poland and Italy. F2 (non-verbal communication) was perceived differently in the following pairs of countries: Italy and Latvia, Italy and Poland, Italy and Lithuania, Italy and Bulgaria, as well as Latvia and Bulgaria. Factor F3 (barriers of communication) aroused different approaches in Bulgaria and Italy, Bulgaria and Poland, Bulgaria and Latvia, Bulgaria and Lithuania, Italy and Poland, Italy and Latvia, Italy and Lithuania, Poland and Latvia, and Poland and Lithuania. In terms of F4 (written communication), the differences in perception of significance were identified for Italy and Latvia, Italy and Lithuania, Italy and Poland, Italy and Bulgaria, Latvia and Bulgaria, and Latvia and Poland. In terms of F5 (online communication), the differences were noticed in pairs Poland and Italy, Poland and Latvia, Poland and Bulgaria, Poland and Lithuania, as well as Italy and Bulgaria, Italy and Lithuania, Latvia and Bulgaria, Latvia and Lithuania. F6 (quality of content) aroused differences in the perception of significance in the following pairs of countries: Italy and Poland, Italy and Latvia, Italy and Lithuania, and Italy and Bulgaria. F7 (content processing) differed in terms of factor significance in Latvia and Bulgaria, Latvia and Lithuania, Latvia and Poland, Italy and Lithuania, and Italy and Poland. F8, which concerned the mentor's personal background, produced different opinions in Italy and Bulgaria, Italy and Latvia, Italy and Poland, Lithuania and Latvia, Lithuania and Poland. F9 (mentor professional background) differed only in one pair, i.e., Poland and Italy.

A box and whisker plot can also help in interpreting the data (Appendix 2). The box and whisker plot displaying the distribution of the data shows the val-

Tab. 5. Descriptive statistics of extracted factors — differences among countries

COUNTRY		F1	F2	F3	F4	F5	F6	F7	F8	F9
Bulgaria	Mean	2.38	4.42	2.81	3.84	3.95	4.62	3.88	4.38	3.69
	Standard deviation	0.90	0.56	0.67	0.57	0.55	0.49	0.90	0.59	0.94
	Minimum	1.00	3.00	1.00	2.25	2.33	3.00	2.00	3.00	1.00
	Maximum	4.20	5.00	4.50	5.00	5.00	5.00	5.00	5.00	5.00
Poland	Mean	2.08	4.26	3.56	3.93	2.92	4.52	4.14	4.47	3.62
	Standard deviation	0.95	0.53	0.64	0.63	0.82	0.43	0.53	0.62	0.87
	Minimum	1.00	3.00	2.00	1.00	1.00	3.00	1.00	2.00	1.00
	Maximum	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
Latvia	Mean	2.43	4.15	3.78	3.50	3.57	4.49	3.66	4.45	3.75
	Standard deviation	1.11	0.70	0.63	0.65	0.72	0.49	0.60	0.57	0.95
	Minimum	1.00	2.20	2.00	1.00	1.00	2.75	1.50	1.50	1.00
	Maximum	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
Italy	Mean	2.53	3.92	3.16	3.09	3.40	3.95	3.83	4.05	3.93
	Standard deviation	0.44	0.49	0.38	0.49	0.52	0.50	0.52	0.45	0.78
	Minimum	1.00	2.80	2.00	2.00	2.00	2.75	2.75	3.00	1.50
	Maximum	3.80	5.00	4.17	4.50	4.67	5.00	5.00	5.00	5.00
Lithuania	Mean	2.03	4.29	3.86	3.71	4.04	4.63	4.11	4.16	3.59
	Standard deviation	0.91	0.56	0.61	0.73	0.61	0.39	0.58	0.71	0.91
	Minimum	1.00	3.00	2.33	1.00	2.00	3.50	2.75	2.00	1.00
	Maximum	4.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00

ues of the 25th percentile, median (50th percentile), and 75th percentile, minimum and maximum for all factors in all the analysed countries. The length of the box presents an interquartile range — the difference between the 25th percentile and the 75th percentile (the range of central 50 % of the data), with a square marking the median value. The length of the whiskers depends on the minimum and maximum data values.

The box plot shows that the median value for F1 is the lowest in Poland and Lithuania and the highest for Bulgaria and Italy and that in Italy, values are more concentrated around the median (taller boxes imply more variable data). Especially in the case of Poland, the maximum value is far away from the median, showing less consistency in results. For F2, F4, F6 and F8, the median values are the lowest in Italy.

However, the values for Italy are usually more consistent around the centre values and more symmetrical. For F3, the median value is the lowest in Bulgaria; for F5, it is the lowest in Poland; for F7, it is the lowest in Italy and Latvia; and for F9, the median has equal value in all the analysed countries. The respondents have the lowest opinion dispersion in the case of F3 in all countries. In the case of F8, the opinions concentrate around maximum values, with some different opinions, especially in the case of Latvia.

In Bulgaria, Poland and Latvia, the most important factors in mentor–mentee communication are F6 (quality of content), F2 (non-verbal communication) and F8 (mentor's personal background). An identical situation is in Lithuania; however, for this country, F7 (content processing) is also of the same importance as F2 and F6. In Italy, all factors were evaluated by the respondents lower than in Central and Eastern European countries, and the differences between the assessment of factors are smaller — F8, F6 and F2, as well as F7 and F9, were assessed comparably.

As two different groups of participants of the mentoring services were among respondents, the analysis of differences between mentors and mentees was conducted, and it was based on the non-parametric Mann–Whitney U Test. The results of the test confirmed statistically significant differences between mentors and mentees for the entire sample in the case of factors describing the channels of communication such as Factor 2 (non-verbal communication) and Factor 4 (written communication) — it was $U=45669.500$, $p<0.05$ and $U=45669.500$, $p<0.05$, respectively (Appendix 3). In all other factors, statistical differences between mentors and mentees were insignificant.

Tab. 6. Results of Kruskal–Wallis H Test (country as a grouping variable)

FACTOR	COUNTRY	N	MEAN RANK	SUM RANG	KRUSKAL–WALLIS TEST STATISTICS	
F1	Bulgaria	115	349.83	40230.50		
	Poland	213	282.77	60229.00	Chi-Square	30.13
	Latvia	102	346.96	35389.50	df	4
	Italy	102	378.39	38595.50	Asymp. Sig.	0.00
	Lithuania	106	277.33	29396.50		
F2	Bulgaria	115	383.09	44055.50		
	Poland	213	328.97	70071.50	Chi-Square	46.31
	Latvia	102	305.85	31196.50	df	4
	Italy	102	220.68	22509.00	Asymp. Sig.	0.00
	Lithuania	106	339.70	36008.50		
F3	Bulgaria	115	161.81	18608.00		
	Poland	213	348.41	74211.00	Chi-Square	173.86
	Latvia	102	410.82	41904.00	df	4
	Italy	102	233.65	23832.50	Asymp. Sig.	0.00
	Lithuania	106	427.22	45285.50		
F4	Bulgaria	115	364.71	41942.00		
	Poland	213	391.06	83295.50	Chi-Square	133.97
	Latvia	102	271.55	27698.00	df	4
	Italy	102	150.76	15378.00	Asymp. Sig.	0.00
	Lithuania	106	335.17	35527.50		
F5	Bulgaria	115	432.99	49794.00		
	Poland	213	197.38	42041.00	Chi-Square	200.21
	Latvia	102	341.43	34826.00	df	4
	Italy	102	286.87	29261.00	Asymp. Sig.	0.00
	Lithuania	106	452.07	47919.00		
F6	Bulgaria	115	386.47	44444.50		
	Poland	213	330.00	70291.00	Chi-Square	116.47
	Latvia	102	330.17	33677.00	df	4
	Italy	102	151.03	15405.50	Asymp. Sig.	0.00
	Lithuania	106	377.58	40023.00		
F7	Bulgaria	115	315.15	44444.50		
	Poland	213	372.02	70291.00	Chi-Square	55.56
	Latvia	102	230.07	33677.00	df	4
	Italy	102	265.09	15405.50	Asymp. Sig.	0.00
	Lithuania	106	357.09	40023.00		
F8	Bulgaria	115	330.75	38036.50		
	Poland	213	367.22	78217.00	Chi-Square	57.26
	Latvia	102	350.00	35700.50	df	4
	Italy	102	219.07	22345.50	Asymp. Sig.	0.00
	Lithuania	106	278.69	29541.50		
F9	Bulgaria	115	319.03	36688.50		
	Poland	213	300.98	64109.50	Chi-Square	10.02
	Latvia	102	336.34	34307.00	df	4
	Italy	102	362.10	36934.50	Asymp. Sig.	0.04
	Lithuania	106	300.01	31801.50		

Tab. 7. Differences between mentors and mentees in individual countries. Results of the Mann–Whitney U Test

	Status	Bulgaria N	Mean Rank	Sum Rang	U Mann-Whitney Test Statistics	Poland N	Mean Rank	Sum Rang	U Mann-Whitney Test Statistics	Latvia N	Mean Rank	Sum Rang	U Mann-Whitney Test Statistics	Italy N	Mean Rank	Sum Rang	U Mann-Whitney Test Statistics	Lithuania N	Mean Rank	Sum Rang	U Mann-Whitney Test Statistics
F1	Mentor	59	54.82	3234.50	U=1464.50, p=0.29	97	109.44	10616.00	U=5389.00, p=0.59	65	54.59	3548.50	U=1001.50, p=0.16	57	62.24	3547.50	**U=670.50, p=0.00**	56	51.86	2904.00	U=1308.00, p=0.56
	Mentee	56	61.35	3435.50		116	104.96	12175.00		37	46.07	1704.50		45	37.90	1705.50		50	55.34	2767.00	
F2	Mentor	59	58.88	3474.00	U=1600.00, p=0.77	97	115.66	11219.00	U=4786.00, p=0.06	65	59.65	3877.00	**U=673.00, p=0.00**	57	49.31	2810.50	U=1157.50, p=0.39	56	54.25	3038.00	U=1358.00, p=0.78
	Mentee	56	57.07	3196.00		116	99.76	11572.00		37	37.19	1376.00		45	54.28	2442.50		50	52.66	2633.00	
F3	Mentor	59	58.51	3452.00	U=1622.00, p=0.87	97	107.37	10414.50	U=5590.50, p=0.94	65	53.86	3501.00	U=1049.00, p=0.28	57	60.32	3438.00	**U=780.00, p=0.00**	56	47.29	2648.00	**U=1052.00, p=0.03**
	Mentee	56	57.46	3218.00		116	106.69	12376.50		37	47.35	1752.00		45	40.33	1815.00		50	60.46	3023.00	
F4	Mentor	59	59.40	3504.50	U=1569.50, p=0.64	97	101.71	9866.00	U=5113.00, p=0.25	65	51.52	3348.50	U=1201.50, p=0.99	57	51.64	2943.50	U=1274.50, p=0.96	56	46.79	2620.50	**U=1024.50, p=0.02**
	Mentee	56	56.53	3165.50		116	111.42	12925.00		37	51.47	1904.50		45	51.32	2309.50		50	61.01	3050.50	
F5	Mentor	59	63.68	3757.00	U=1317.00, p=0.06	97	107.66	10443.00	U=5562.00, p=0.88	65	49.55	3220.50	U=1075.00, p=0.37	57	50.70	2890.00	U=1237.00, p=0.75	56	53.37	2988.50	U=1392.50, p=0.96
	Mentee	56	52.02	2913.00		116	106.45	12348.00		37	54.93	2032.50		45	52.51	2363.00		50	53.65	2682.50	
F6	Mentor	59	57.07	3367.00	U=1597.00, p=0.74	97	102.01	9894.50	U=5141.50, p=0.27	65	50.92	3310.00	U=1165.00, p=0.79	57	57.02	3250.00	**U=968.00, p=0.03**	56	52.14	2920.00	U=1324.00, p=0.62
	Mentee	56	58.98	3303.00		116	111.18	12896.50		37	52.51	1943.00		45	44.51	2003.00		50	55.02	2751.00	
F7	Mentor	59	60.48	3568.50	U=1505.50, p=0.41	97	111.94	10858.50	U=5146.50, p=0.28	65	55.91	3634.00	**U=916.00, p=0.04**	57	51.75	2949.50	U=1268.50, p=0.92	56	51.95	2909.00	U=1313.00, p=0.58
	Mentee	56	55.38	3101.50		116	102.87	11932.50		37	43.76	1619.00		45	51.19	2303.50		50	55.24	2762.00	
F8	Mentor	59	54.81	3234.00	U=1464.00, p=0.26	97	100.99	9796.00	U=5043.00, p=0.17	65	51.81	3367.50	U=1182.50, p=0.88	57	50.93	2903.00	U=1250.00, p=0.81	56	54.93	3076.00	U=1320.00, p=0.60
	Mentee	56	61.36	3436.00		116	112.03	12995.00		37	50.96	1885.50		45	52.22	2350.00		50	51.90	2595.00	
F9	Mentor	59	55.94	3300.50	U=1530.50, p=0.49	97	106.46	10327.00	U=5574.00, p=0.91	65	53.92	3504.50	U=1045.50, p=0.26	57	62.43	3558.50	**U=659.50, p=0.00**	56	50.77	2843.00	U=1247.00, p=0.32
	Mentee	56	60.17	3369.50		116	107.45	12464.00		37	47.26	1748.50		45	37.66	1694.50		50	56.56	2828.00	

In the next step, the differences between mentors and mentees in individual countries were analysed. Significant differences are noticed for Latvia — F2 (non-verbal communication) and F7 (content processing), Italy — F1 (mentor traits), F3 (barriers of communication), F6 (quality of content) and F9 (mentor's personal background), and Lithuania — F3 (barriers of communication) and F4 (written communication) (Table 7).

4. Discussion of the results

Mentorship is considered an integral part of fostering entrepreneurship and innovations. It supports the learning and development process in various domains. Therefore, the quality of mentor–mentee communication can affect learning, particularly any disparity in their expectations. The factors affecting this relationship have been the subject of research for many years. Hodges (Hodges, 2009) recognised the following factors that can have a negative influence on mentoring: poor communication, differing expectations between the mentor and the mentee, a lack of trust and a lack of appreciation of everyday life circumstances that affect each person. On the contrary, as factors that can help to prevent or counteract problems in the relationship, the author recognised the use of learning contracts, formulation of ground rules, tracking mentees' progress and a discussion of the expectations of the mentor and the mentee.

A study conducted in 2000 (Stanulis et al., 2000) found that an effective mentoring relationship, where both participants feel comfortable, could be achieved by using such strategies as reciprocal activities, reflections and being versatile, among others, that works effectively for both the mentor and the mentee.

Qureshi (2018) conducted a semi-structured survey regarding mentor–mentee relationship details. The research concluded that the most important strengthening concepts in this communication are creating a positive environment, taking initiative, giving customised support, in-depth answers, positive encouragement, being accessible, etc.

A detailed interview with university lecturers from the USA was conducted in 2013 (Straus et al., 2013). It reports the following characteristics of effective mentors: altruism, active listening, honesty, trustworthiness, having substantial professional and mentorship experience, as well as being accessible and able to identify and support the development of potential strengths and skills in their mentees. In addition, the characteristics of effective mentees were also identified. They should be open to feedback and be active listeners, be respectful of their mentor's input and time, be responsible, pay attention to timelines, and take responsibility for "driving the relationship".

A recent study (Parija, 2021) examined factors for effective mentor–mentee communication. The following factors were enumerated as the most important: active listening, either verbal or non-verbal, which includes a focused conversation on the set goals, paraphrasing and summarising the salient points shared by the mentee, asking open-ended questions to obtain additional information, disclosing relevant self-experiences, etc., as well as feedback and reflection. The following negative factors that hinder communication were identified: unnecessary arguments, talking about irrelevant things or the mentor dominating the interaction, passive listening, and being judgmental of the mentee's behaviour.

Another study (Afolabi, 2021) that surveyed mentor–mentee relationships revealed that the main characteristics identified as qualities of a good mentor are teaching, listening attentively and communicating effectively. The following characteristics of a good mentor were reported as crucial: the ability to teach, attentive listening and effective communication, flexibility and openness to suggestions, supportiveness, excellent leadership qualities, supportiveness, etc. Among the negative factors affecting communication, the following were considered: a clash of personalities, unrealistic expectations, arguments and conflicts, too much workload on one party, bringing personal problems into the relationship, etc.

All these previous surveys conducted in various countries to a great extent comply with the majority of findings of this research. In all five analysed countries, both verbal and non-verbal communication methods are considered important in most of the variants. However, in some countries, significant differences in the perceived importance of the factors between mentors and mentees were found. This is also confirmed, e.g., by a comparative analysis of Latvia and Lithuania (Bartuševičienė et al., 2021), which showed that the assessment of communication elements (communication channels, content creation through communication, various communication skills and communication barriers) usually differed significantly between Lithuanian and Latvian mentors and mentees, and this may have been influenced by a different number of respondents by age, Latvian

respondents being more concentrated in one field of activity (agriculture) while Lithuanian respondents representing more different fields. All the conducted studies confirm that the mentor's personality and capabilities are also critical factors for successful mentorship, along with professional skills and knowledge. This research confirms the results of the previous examinations, showing that emotional intelligence is critical for successful mentorship activities. Both mentors and mentees should be able to manage their feelings and have proper expectations for mentorship results. In addition, they both should be motivated to a sufficient degree to maintain such a long-run relationship, the results of which would be seen in the future.

CONCLUSIONS

The conducted research shows that the mentoring service is determined by various factors, where their perception depends on the specificity of the country in which mentoring is conducted. Factors influencing communication in the mentor–mentee relationship are mentor traits, mentor's personal background, mentor's professional background, non-verbal communication channels, barriers to communication, written communication channels, online communication, quality of content, and the ability of content processing by the mentee.

Research results prove significant differences among countries for all nine factors. F2 (non-verbal communication), F4 (written communication) and F6 (quality of content) were perceived differently in Italy and all the analysed CEE countries. F3 (barriers to communication) differed in Bulgaria and the remaining four countries. F5 (online communication) was perceived differently in Poland and the rest of the countries. The most similar opinions in all the analysed countries about factor importance were represented for F9 (mentor's professional background).

Not only the country in which mentoring is conducted determines the different perceptions of the importance of factors influencing the mentoring process, but also the role played by the participant in the mentoring relationship. Some statistically significant differences were noticed between mentors and mentees for the entire sample in the case of factors describing such channels of communication as F2 (non-verbal communication) and F4 (written communication).

As a direction for future research, it can be recommended to conduct more detailed studies concerning factors of the communication process among mentors and mentees in such countries as Lithuania, Latvia or Italy by developing separate models (or EFA) for mentors and mentees. Significant differences were identified for those countries in the perception of the importance of factors by mentors and mentees. In addition, research on the determinants of the mentoring process should also include other elements that may differentiate the approach to identified factors, such as age or the type of education of mentors and mentees.

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Appendix 1
Results of pair-wise comparisons: differences between mentors and mentees in the analysed countries

F1

Sample1-Sample2	Test Statistic	Std. Error	Std. Test Statistic	Sig.	Adj.Sig.
Lithuania-Poland	5,440	21,788	,250	,803	1,000
Lithuania-Latvia	69,630	25,424	2,739	,006	,062
Lithuania-Bulgaria	72,505	24,681	2,938	,003	,033
Lithuania-Italy	101,062	25,424	3,975	,000	,001
Poland-Latvia	-64,191	22,072	-2,908	,004	,036
Poland-Bulgaria	67,065	21,211	3,162	,002	,016
Poland-Italy	-95,622	22,072	-4,332	,000	,000
Latvia-Bulgaria	2,875	24,932	,115	,908	1,000
Latvia-Italy	-31,431	25,668	-1,225	,221	1,000
Bulgaria-Italy	-28,557	24,932	-1,145	,252	1,000

Each row tests the null hypothesis that the Sample 1 and Sample 2 distributions are the same.
Asymptotic significances (2-sided tests) are displayed. The significance level is ,05.

F2

Sample1-Sample2	Test Statistic	Std. Error	Std. Test Statistic	Sig.	Adj.Sig.
Italy-Latvia	85,172	25,557	3,333	,001	,009
Italy-Poland	108,298	21,976	4,928	,000	,000
Italy-Lithuania	-119,026	25,314	-4,702	,000	,000
Italy-Bulgaria	162,415	24,824	6,543	,000	,000
Latvia-Poland	23,126	21,976	1,052	,293	1,000
Latvia-Lithuania	-33,855	25,314	-1,337	,181	1,000
Latvia-Bulgaria	77,243	24,824	3,112	,002	,019
Poland-Lithuania	-10,729	21,694	-,495	,621	1,000
Poland-Bulgaria	54,117	21,120	2,562	,010	,104
Lithuania-Bulgaria	43,388	24,574	1,766	,077	,775

Each row tests the null hypothesis that the Sample 1 and Sample 2 distributions are the same.
Asymptotic significances (2-sided tests) are displayed. The significance level is ,05.

F3

Sample1-Sample2	Test Statistic	Std. Error	Std. Test Statistic	Sig.	Adj.Sig.
Bulgaria-Italy	-71,843	24,992	-2,875	,004	,040
Bulgaria-Poland	-186,600	21,263	-8,776	,000	,000
Bulgaria-Latvia	-249,015	24,992	-9,964	,000	,000
Bulgaria-Lithuania	-265,413	24,741	-10,728	,000	,000
Italy-Poland	114,756	22,125	5,187	,000	,000
Italy-Latvia	177,172	25,730	6,886	,000	,000
Italy-Lithuania	-193,570	25,486	-7,595	,000	,000
Poland-Latvia	-62,415	22,125	-2,821	,005	,048
Poland-Lithuania	-78,813	21,841	-3,608	,000	,003
Latvia-Lithuania	-16,398	25,486	-,643	,520	1,000

Each row tests the null hypothesis that the Sample 1 and Sample 2 distributions are the same.
Asymptotic significances (2-sided tests) are displayed. The significance level is ,05.

F4

Sample1-Sample2	Test Statistic	Std. Error	Std. Test Statistic	Sig.	Adj.Sig.
Italy-Latvia	120,784	25,636	4,712	,000	,000
Italy-Lithuania	-184,400	25,393	-7,262	,000	,000
Italy-Bulgaria	213,948	24,901	8,592	,000	,000
Italy-Poland	240,294	22,045	10,900	,000	,000
Latvia-Lithuania	-63,616	25,393	-2,505	,012	,122
Latvia-Bulgaria	93,164	24,901	3,741	,000	,002
Latvia-Poland	119,510	22,045	5,421	,000	,000
Lithuania-Bulgaria	29,548	24,651	1,199	,231	1,000
Lithuania-Poland	55,894	21,761	2,568	,010	,102
Bulgaria-Poland	-26,346	21,185	-1,244	,214	1,000

Each row tests the null hypothesis that the Sample 1 and Sample 2 distributions are the same.
Asymptotic significances (2-sided tests) are displayed. The significance level is ,05.

F5

Sample1-Sample2	Test Statistic	Std. Error	Std. Test Statistic	Sig.	Adj.Sig.
Poland-Italy	-89,497	21,992	-4,070	,000	,000
Poland-Latvia	-144,056	21,992	-6,550	,000	,000
Poland-Bulgaria	235,616	21,135	11,148	,000	,000
Poland-Lithuania	-254,690	21,709	-11,732	,000	,000
Italy-Latvia	54,559	25,575	2,133	,033	,329
Italy-Bulgaria	146,119	24,841	5,882	,000	,000
Italy-Lithuania	-165,193	25,332	-6,521	,000	,000
Latvia-Bulgaria	91,560	24,841	3,686	,000	,002
Latvia-Lithuania	-110,635	25,332	-4,367	,000	,000
Bulgaria-Lithuania	-19,075	24,592	-,776	,438	1,000

Each row tests the null hypothesis that the Sample 1 and Sample 2 distributions are the same.
Asymptotic significances (2-sided tests) are displayed. The significance level is ,05.

F6

Sample1-Sample2	Test Statistic	Std. Error	Std. Test Statistic	Sig.	Adj.Sig.
Italy-Poland	178,970	21,759	8,225	,000	,000
Italy-Latvia	179,132	25,304	7,079	,000	,000
Italy-Lithuania	-226,541	25,064	-9,039	,000	,000
Italy-Bulgaria	235,440	24,578	9,579	,000	,000
Poland-Latvia	-,162	21,759	-,007	,994	1,000
Poland-Lithuania	-47,571	21,479	-2,215	,027	,268
Poland-Bulgaria	56,469	20,911	2,700	,007	,069
Latvia-Lithuania	-47,409	25,064	-1,892	,059	,586
Latvia-Bulgaria	56,307	24,578	2,291	,022	,220
Lithuania-Bulgaria	8,898	24,331	,366	,715	1,000

Each row tests the null hypothesis that the Sample 1 and Sample 2 distributions are the same.
Asymptotic significances (2-sided tests) are displayed. The significance level is ,05.

F7

Sample1-Sample2	Test Statistic	Std. Error	Std. Test Statistic	Sig.	Adj.Sig.
Latvia-Italy	-35,015	25,601	-1,368	,171	1,000
Latvia-Bulgaria	85,079	24,867	3,421	,001	,006
Latvia-Lithuania	-127,021	25,358	-5,009	,000	,000
Latvia-Poland	141,945	22,014	6,448	,000	,000
Italy-Bulgaria	50,064	24,867	2,013	,044	,441
Italy-Lithuania	-92,006	25,358	-3,628	,000	,003
Italy-Poland	106,931	22,014	4,857	,000	,000
Bulgaria-Lithuania	-41,942	24,617	-1,704	,088	,884
Bulgaria-Poland	-56,867	21,156	-2,688	,007	,072
Lithuania-Poland	14,924	21,731	,687	,492	1,000

Each row tests the null hypothesis that the Sample 1 and Sample 2 distributions are the same.
Asymptotic significances (2-sided tests) are displayed. The significance level is ,05.

F8

Sample1-Sample2	Test Statistic	Std. Error	Std. Test Statistic	Sig.	Adj.Sig.
Italy-Lithuania	-59,620	24,588	-2,425	,015	,153
Italy-Bulgaria	111,679	24,112	4,632	,000	,000
Italy-Latvia	130,931	24,824	5,274	,000	,000
Italy-Poland	148,142	21,346	6,940	,000	,000
Lithuania-Bulgaria	52,059	23,870	2,181	,029	,292
Lithuania-Latvia	71,312	24,588	2,900	,004	,037
Lithuania-Poland	88,523	21,072	4,201	,000	,000
Bulgaria-Latvia	-19,253	24,112	-,798	,425	1,000
Bulgaria-Poland	-36,464	20,514	-1,778	,075	,755
Latvia-Poland	17,211	21,346	,806	,420	1,000

Each row tests the null hypothesis that the Sample 1 and Sample 2 distributions are the same.
Asymptotic significances (2-sided tests) are displayed. The significance level is ,05.

F9

Sample1-Sample2	Test Statistic	Std. Error	Std. Test Statistic	Sig.	Adj.Sig.
Poland-Italy	-61,119	21,761	-2,809	,005	,050
Lithuania-Italy	62,089	25,067	2,477	,013	,133
Bulgaria-Italy	-43,073	24,581	-1,752	,080	,797
Poland-Latvia	-35,360	21,761	-1,625	,104	1,000
Lithuania-Latvia	36,329	25,067	1,449	,147	1,000
Latvia-Italy	-25,760	25,307	-1,018	,309	1,000
Poland-Bulgaria	18,047	20,913	,863	,388	1,000
Lithuania-Bulgaria	19,016	24,334	,781	,435	1,000
Bulgaria-Latvia	-17,313	24,581	-,704	,481	1,000
Lithuania-Poland	,969	21,482	,045	,964	1,000

Each row tests the null hypothesis that the Sample 1 and Sample 2 distributions are the same.
Asymptotic significances (2-sided tests) are displayed. The significance level is ,05.

Appendix 2
Box and whisker plots for comparisons among countries
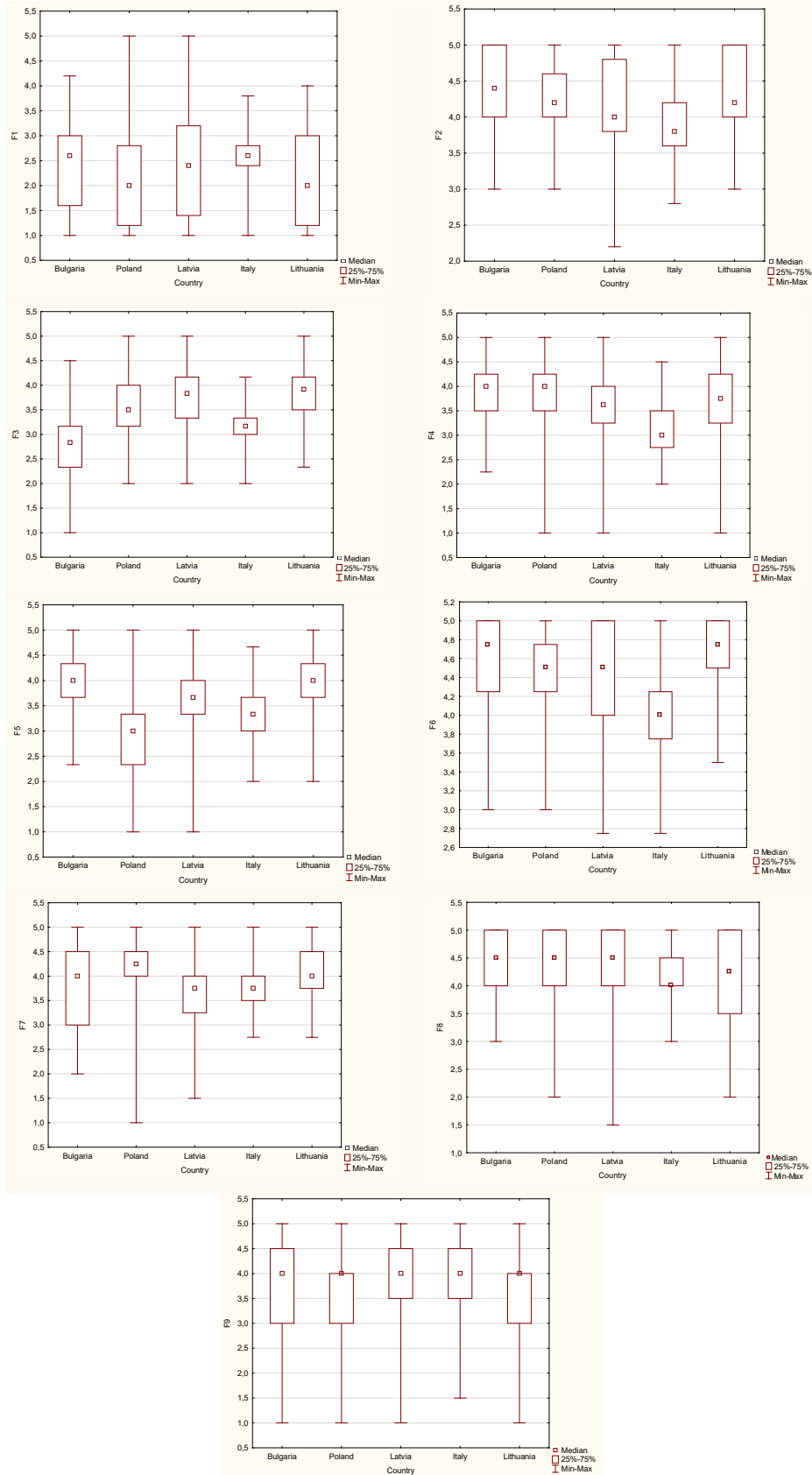
Appendix 3

Mann–Whitney U Test results — differences between mentors and mentees in the analysed countries, the entire research sample

Factor	Status	N	Mean Rank	Sum of Ranks	Test Statistics	
F1	Mentor	334	328.64	109765.00	Mann-Whitney U	47716,000
	Mentee	304	309.46	94076.00	Asymp. Sig. (2-tailed)	0.187
F2	Mentor	334	334.76	111811.50	Mann-Whitney U	**45669.500**
	Mentee	304	302.73	92029.50	Asymp. Sig. (2-tailed)	**0.027**
F3	Mentor	334	325.68	108778.50	Mann-Whitney U	48702.500
	Mentee	304	312.71	95062.50	Asymp. Sig. (2-tailed)	0.373
F4	Mentor	334	302.30	100968.50	Mann-Whitney U	**45023.500**
	Mentee	304	338.40	102872.50	Asymp. Sig. (2-tailed)	**0.013**
F5	Mentor	334	327.02	109225.50	Mann-Whitney U	48255.500
	Mentee	304	311.24	94615.50	Asymp. Sig. (2-tailed)	0.276
F6	Mentor	334	313.27	104631.00	Mann-Whitney U	48686.000
	Mentee	304	326.35	99210.00	Asymp. Sig. (2-tailed)	0.361
F7	Mentor	334	323.50	108050.50	Mann-Whitney U	49430.500
	Mentee	304	315.10	95790.50	Asymp. Sig. (2-tailed)	0.562
F8	Mentor	334	309.72	103445.00	Mann-Whitney U	47500.000
	Mentee	304	330.25	100396.00	Asymp. Sig. (2-tailed)	0.144
F9	Mentor	334	330.69	110450.50	Mann-Whitney U	47030.500
	Mentee	304	307.21	93390.50	Asymp. Sig. (2-tailed)	0.101