
Communication in Multigenerational Project Teams During the Covid-19 Pandemic: The Perspective of Team Members

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Abstract:

Purpose: The article presents empirical research that sheds light on how project managers communicated with their team members during the COVID-19 pandemic. Communication in multigenerational project teams during the COVID-19 pandemic posed challenges for both team members and project managers, but it also opened up new possibilities for project management.

Design/Methodology/Approach: The aim of this article is to diagnose barriers and disruptions in the communication process within multigenerational project teams during the COVID-19 pandemic, as well as to identify the tools and communication technologies used by project managers during the pandemic. Empirical research also provides an assessment of the tools and communication technologies used by team members and their analysis.

Findings: Communication has a significant impact on the quality of project team management; therefore, it is crucial to adapt communication tools and technologies to the capabilities and expectations of team members. Team members often come from different generations, so it is important to understand their strengths and weaknesses and select communication tools and technologies in a way that satisfies both team members and project managers in terms of the project's outcomes.

Practical implications: The article identified communication tools and technologies used in multigenerational teams during the COVID-19 pandemic and presented an evaluation and analysis of these tools and technologies from the perspective of team members. The findings of the empirical research can be utilized in times of crisis when project teams are exclusively working remotely. The presented results can be used to establish a code of best practices.

Originality/Value: The authors present the effective use of communication tools and technologies in managing diverse project teams during times of exclusive remote work, which positively impacts project management effectiveness and stakeholder satisfaction. The COVID-19 pandemic necessitated the transition of most activities to the virtual realm, meaning that different generations had to adapt their communication preferences to online tools. The need to utilize video conferencing platforms and online chats contributed to greater intergenerational integration in communication.

Keywords: Communication, project team management, generational diversity.

JEL: M14, L15.

Paper type: Research article.

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1. Introduction

One of the key factors determining success in project implementation is effective two-way communication, both between team members and their manager, as well as with external stakeholders. With the advent of the COVID-19 pandemic, project managers have been forced to implement new project management methods and techniques, as well as adapt communication tools and channels to team members from different generational groups (Grima *et al.*, 2020; Khan *et al.*, 2020).

Many employees have been required to transition to remote work, significantly impacting the dynamics of communication in project teams and posing a challenge for project managers in managing generational diversity within these teams. Key soft skills for project managers that facilitate managing virtual teams include leadership, communication skills, assertiveness, negotiation, goal orientation, active listening, stress management, self-presentation, and self-confidence (Kacprzak and Król, 2013; Thalassinos *et al.*, 2022).

The COVID-19 pandemic has led to an increase in both the number of organizations working virtually and the number of remote project teams. According to Rutka and Wróbel (2012), "project teams are teams in which members collaborate to carry out a project, that is, to prepare and implement a planned undertaking within a specified timeframe and budget." A significant portion of project teams during the COVID-19 pandemic has transitioned to the virtual sphere and had to face the new challenges of this environment.

Definitions of virtual teams emphasize that members of a virtual team work towards a common goal, are geographically dispersed, remain interdependent, understand their roles and tasks within the team, build mutual relationships, operate according to specified rules, and are accountable for the outcomes of their collective work, with communication taking place through modern information and communication technologies (Stefaniuk, 2014). Collaboration in such a team is based on trust (Sankowska, 2011), (Miranda and Klement, 2009).

According to Koźmiński, trust is a fundamental condition for gaining a competitive advantage, reducing control costs, and fostering tolerance, which is a prerequisite for innovation and independent action (Koźmiński, 2004). Communication plays a key role in project teams in terms of information exchange, coordinating actions, decision-making, and achieving common goals.

However, the COVID-19 pandemic has necessitated that organizations and project teams adapt to the new reality of remote work. Many employees had to learn how to use new communication tools and channels and face challenges related to the lack of personal contact and distance communication.

Online work has become an integral part of professional life during the COVID-19 pandemic. While it has many advantages, such as flexibility in terms of time and the ability to work from anywhere, it also comes with certain risks that need to be acknowledged. Here are a few risks associated with online work during the COVID-19 pandemic:

- *Cybersecurity*: Remote work carries data security risks. Malware, phishing attacks, and data breaches can pose serious threats to privacy and information confidentiality. Many organizations are implementing security measures such as strong passwords, antivirus software, and VPNs, but the risk of a cyberattack still exists. It is important to be aware of the threats, keep software up to date, and adhere to organizational security policies;
- *Information overload*: Remote work often means constant connectivity and being bombarded with information through various communication channels. An inundation of emails, messages on communication platforms, and video conferences can lead to information overload. This can impact productivity and the ability to focus on important tasks. It is important to establish priorities, create schedules, and allocate dedicated time for focused work;
- *Social isolation*: Remote work can lead to social isolation and a lack of interaction with other people. Under normal circumstances, office work enables daily social contacts and teamwork. However, in an online setting, this interaction can be limited. This can result in feelings of loneliness, lack of motivation, and deterioration of mental well-being. It is important to maintain regular interactions with the team through video conferences, group chats, and online meetings to prevent social isolation;
- *Work-life imbalance*: Remote work can lead to the blurring of the boundaries between work and personal life. Without a clear separation between workspace and home space, it is easy to work excessive hours, which can result in burnout and a lack of work-life balance. It is important to establish clear time boundaries, create schedules, and make sure to take regular breaks.

2. Managing Generational Diversity in Project Teams

Generational diversity has become increasingly common in contemporary project teams. Managing diversity involves managing work teams that are diverse in terms of age, gender, race, nationality, religion, disability, lifestyle, and more. Project managers face the challenge of effectively, efficiently, and successfully managing team members from multiple generations who fundamentally differ in their approach to work and leisure time, values, communication preferences, competencies,

expectations of employers and themselves, as well as having different habits, needs, and expectations.

Literature analysis allows for the identification of the following generations in the workforce: Silent, Baby Boomers, X, Y, Z (Warwas, 2019). The generational typology is presented in Table 1.

Table 1. *Generations operating in the labour market*

Generation Name	Born in the Years of
Silent	1922-1944
Baby Boomers	1945-1964
X	1965-1979
Y	1980-1994
Z	After 1994 r.

Source: Warwas I., 2019.

A detailed characterization of each generation has been presented in Table 2. Members of Generation X and Y are currently actively operating in the labour market. Young individuals from Generation Z are just beginning to enter the workforce and familiarise themselves with its realities. Over half of the individuals from the Baby Boomers generation are already retired, and members of the Silent generation form a small group in the labour market, often serving as experts and mentors (Mazur-Wierzbicka, 2016).

In the academic literature, there are differences regarding the dates defining the beginning and end of each generation. It is challenging to precisely determine when Generation Z emerges (Warwas, 2019). One of the key elements in managing generational diversity is awareness and understanding of the differences between generations. Each generation has its own perspectives and approaches to work, which can lead to variations in communication styles, decision-making, problem-solving, and technology adoption. It is important for project managers to have knowledge of these differences and be able to incorporate them into the management process.

Another important aspect of managing generational diversity is creating an open and supportive work environment. Generations differ not only in terms of values and preferences but also in their expectations regarding work and career. Managing generational diversity requires a flexible approach and the ability to adapt to individual needs and expectations of team members. It is valuable to leverage the diversity of the team and allow all members to bring their unique perspectives and skills to the project.

The project manager should strive for the integration of different generations by fostering an atmosphere of mutual respect, openness, and collaboration. It is also essential to provide appropriate communication and technological tools that are

suitable for different generations. Older generations may prefer more traditional forms of communication, such as face-to-face meetings, phone calls, or written reports. Younger generations, on the other hand, often rely more on modern tools such as instant messaging, emails, or online collaboration platforms. Adapting to these preferences can help ensure effective communication and collaboration within the project team.

Table 2. Detailed characteristics of generations

Generation name	Priorities	Approach towards work and employer
Silent (1925 - 1945)	<ul style="list-style-type: none"> ● loyal, ● focus on history, ● respecting traditions. 	<ul style="list-style-type: none"> ● heritage culture, ● resilience to change, ● trial and error approach, ● entitlement mentality, ● loyalty to the employer, ● organisational commitment, ● high work motivation, ● teamwork skills, ● strong dedication to work, ● strong sense of duty and responsibility for assigned tasks, ● adherence to ethics and moral principles, ● preference for written and oral communication.
Baby Boomers (1946 - 1964)	<ul style="list-style-type: none"> ● optimism, stability, ● clear hierarchy of values ● clearly determined life strategy 	<ul style="list-style-type: none"> ● high level of trust in the employer, ● respect for authority figures, ● strong need for affiliation, ● workaholism, ● total dedication and commitment to work, ● sense of duty, ● high need for stability and security, ● desire for prestige, appreciation, and recognition, ● preference for a traditional career (best realised within one organisation), ● difficulty in identifying and articulating their needs and expectations, ● resistance to changes in the workplace or changes in the environment, ● preference for written and oral communication, ● low professional and geographical mobility.

<p>Generati on X (1965 - 1979)</p>	<ul style="list-style-type: none"> ● caution in action, ● emphasis on security and stability, ● interest in innovations but supported by quantitative indicators. 	<ul style="list-style-type: none"> ● loyalty towards the employer, ● scepticism and caution in action, ● diligence, ● entrepreneurship, ● creativity, ● tendency towards workaholism, ● high expectations of oneself and others, ● strong focus on self-development, ● mobility, ● independence, ● conscientiousness and sense of duty.
<p>Generati on Y (1980 - 1994)</p>	<ul style="list-style-type: none"> ● life around media, ● learning through experience, ● lifelong learning, ● importance of peer proximity. 	<ul style="list-style-type: none"> ● low level of loyalty towards the employer, ● high entitlement mentality towards the employer, ● limited flexibility in terms of working conditions and hours, ● constant stimulation required for work, preference for teamwork (high need for integration) but also high independence in action, ● preference for a task-based work system, ● strong focus on self-fulfilment, ● selecting work based on alignment with priorities and passion, ● importance of a friendly work atmosphere, ● high need for recognition and prestige, ● expectation of an attractive compensation package, ● expectation of consideration for family values in the workplace, ● emphasis on personal development, continuous learning, including through experience, ● high mobility and flexibility in action, ● openness to change, ● preference for electronic communication methods.

<p>Generati on Z from 1995</p>	<ul style="list-style-type: none"> ● Being global in social and technological aspects, ● significant influence of social media on social and professional functioning. 	<p>It is assumed that these will be employees:</p> <ul style="list-style-type: none"> ● having low loyalty towards the employer, ● self-oriented, ● entitlement mentality, ● potential difficulties in teamwork, ● expecting clear task delineation and tangible recognition in compensation, ● expecting a flexible HR policy, ● preferring minimal formalities in supervisor-subordinate relationships, ● oriented towards internet-based work (including knowledge acquisition), ● being highly influenced by social media both professionally and socially, ● primarily using electronic communication methods.
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Source: Warwas I., 2019.

A key element of managing generational diversity in project teams is the ability to build understanding between generations and stimulate collaboration and knowledge exchange. Older generations may possess rich experience and valuable skills that they can pass on to younger team members. Conversely, younger generations can bring fresh perspectives, ideas, and knowledge of the latest technologies.

The use of intergenerational mentoring can benefit both the team as a whole and individual members. Intergenerational mentoring is seen as a modified version of traditional mentoring, where both groups collaborate - often, older employees learn to operate new devices, programs, and technologies, while younger employees benefit from their professional experience. In this way, they develop and mutually leverage their potential, influencing the development of the organisation as well (Żorska Izba Gospodarcza, 2006).

The development of communication skills and fostering empathy among team members are also important elements of managing generational diversity. The project leader should encourage open and honest communication, as well as promote active listening and understanding of others' perspectives. It is crucial to avoid stereotypes and generalisations about specific generations, as each team member is unique and has something valuable to contribute.

Additionally, regularly monitoring team dynamics and proactively addressing potential conflicts or issues arising from generational differences is essential. The project manager should be open to dialogue, flexible, and ready to implement management methods and techniques that are appropriate to the needs and expectations of individual team members.

In conclusion, managing generational diversity in project teams is both a challenge and an opportunity to build more creative and effective teams. By understanding generational differences, fostering an open and supportive work environment, promoting communication and collaboration, and developing diversity management skills, success in project execution can be achieved while building strong relationships among team members.

3. Communication in Project Teams - Channels and Communication Tools

Communication management is considered one of the key knowledge areas within project management. It is shaped by various factors, such as the characteristics of project stakeholders, the project environment, communication structure, and physical and psychological barriers. Communication has an impact on most project tasks because managing any aspect of a project requires communication within the team or with external stakeholders (Damasiotis, Fitsilis and O'Kane, 2012).

Internal communication can be both formal, such as project meetings, reports, or documentation, and informal, such as coffee conversations or spontaneous discussions. External communication, on the other hand, may involve reporting project progress, negotiating with clients, or presenting to management. Communication forms the foundation of successful collaboration in a project team.

Research shows that teams that effectively communicate with each other achieve better results and are more successful in achieving project goals. Effective communication allows for clear expectations, understanding of roles and responsibilities of team members, and the development of a shared action plan.

Effective communication is a key element of team effectiveness, both in traditional and virtual settings (Smith, 2019). Communication in a project team can face various challenges. One of the most common challenges is lack of clarity and imprecise information transfer. Unclear goals, tasks, or expectations can lead to misunderstandings and errors in project execution.

Another challenge in project execution is communication among different specialists and experts from different areas. Project team members often possess unique knowledge and experience gained from working on various national and international projects, which can make effective communication between them more challenging.

In such situations, it is essential to establish an open and supportive environment that encourages information exchange and knowledge acquisition (Johnson, 2018). Another challenge in communication within project teams is cultural diversity. In the global business environment, project teams often consist of members from different countries and cultures. Differences in language, values, communication norms, and work styles can lead to misunderstandings and conflicts.

In such situations, it is necessary to demonstrate openness, respect, and flexibility to effectively communicate and achieve understanding (Hofstede, 2017). An important aspect of communication in project teams is also the ability to listen. Active listening enables the understanding of the perspectives, needs, and concerns of other team members, contributing to building trust and effective communication. The project manager should strive to create an atmosphere in which every team member feels comfortable and safe expressing their opinions and concerns.

There are many different communication channels that can be utilised in project teams. Here are a few key ones:

- *Personal communication:* Face-to-face meetings are one of the most effective communication channels in project teams. They allow for immediate interaction and facilitate quick problem-solving. Personal meetings are particularly important at the beginning of a project when team members need to get to know each other and build trust.
- *Written communication:* Emails, text messages, and notes are an integral part of communication in project teams. They are useful for conveying information, setting deadlines, reporting progress, and addressing other essential aspects of the project.
- *Phone communication:* Sometimes, a quick phone call or video conference can be the best way to communicate, especially when team members are geographically dispersed. It allows for immediate interaction and enables the tone of voice and emotions to be heard, which can be challenging in written communication.
- *Project meetings:* Regular project meetings are a key element of communication in project teams. These can include management meetings where project goals, progress, risks, and decisions are discussed, as well as team meetings where members have the opportunity to share information, ask questions, and solve problems. Project meetings can take place in person, online, or in a hybrid format, depending on the team's needs.
- *Document sharing platforms:* In project teams, it is essential for everyone to have access to the latest versions of documents such as project specifications, schedules, reports, etc. Document sharing platforms such as Google Drive, Dropbox, or SharePoint enable easy storage, sharing, and collaboration with documents.

In addition to communication channels, project teams also make use of various information and communication technologies that facilitate information sharing, coordination of activities, and progress monitoring. We can categorise them as follows:

- Online collaborative tools such as Microsoft Teams, Slack, or Google Workspace enable project team members to work together on documents, share information, comment, and edit content. With these tools, all team members have access to the latest versions of documents and can cooperate in real-time.
- Project management systems such as Jira, Trello, or Asana enable planning, tracking progress, assigning tasks, managing schedules, and monitoring project outcomes. With these systems, team members have visibility over the entire project and can easily coordinate their actions.
- Visual tools such as Gantt charts, network diagrams, or Kanban boards allow for the visualization of project schedules, task dependencies, and progress. They assist in effectively communicating information and enhancing understanding of the project's structure (Hertel, Geister, and Konradt, 2005).
- Communication in project teams relies on diverse channels and tools. The appropriate use of these communication means is crucial for the effectiveness of team communication. Understanding and selecting the appropriate communication channels and utilising communication tools effectively contribute to improved collaboration, coordination of actions, and achievement of project goals.

4. Communication in Multigenerational Project Teams During the COVID-19 Pandemic: Empirical Research

Effective communication is a key element of success for any project team. However, in the case of teams consisting of individuals from different generations, communication can be challenging due to differences in work styles, values, and communication preferences. The onset of the COVID-19 pandemic has further impacted the way project teams communicate and collaborate. Prior to the pandemic, multigenerational project teams often met in person at a single location, allowing for direct interaction and idea exchange.

The older generation often preferred more traditional forms of communication, such as face-to-face conversations or meetings in conference rooms. The younger generation, on the other hand, relied on technological tools such as emails, instant messaging, or video conferences. These differences could affect the effectiveness of communication and collaboration among team members.

With the advent of the COVID-19 pandemic, many project teams had to transition to remote work. This challenge required adaptation to new communication tools and technologies. Multigenerational teams had to learn to use video conferencing platforms like Zoom or Microsoft Teams, as well as online collaboration tools like Trello or Slack. The older generation may have needed more time to adapt to these

new technologies, leading to some resistance or frustration. However, over time, most project teams began to adjust to the new reality and learn how to effectively communicate remotely.

In 2020, a study was conducted among members of multigenerational project teams to diagnose barriers and disruptions in communication during the COVID-19 pandemic, as well as to assess the technologies and communication tools utilized by project teams during this time. The study had a nationwide scope and was conducted using a questionnaire survey. The study was conducted online. Representatives from the Baby Boomers, Generation X, Generation Y, and Generation Z participated in the study. A detailed description of the target group is presented in Table 3.

Table 3. Characteristics of the target group

Criterion		% participation in the study
Sex	female	60
	male	40
Generation	Silent	-
	Baby Boomers	20
	X	20
	Y	40
	Z	20
Experience in the realisation of projects as member of a team	1-5 projects	10
	6-10 projects	60
	Above 10 projects	30
Specialisation	Human resource management	10
	Communication	40
	Strategic management	10
	Finances	10
	IT	10
	Logistics	10
	Economics	10

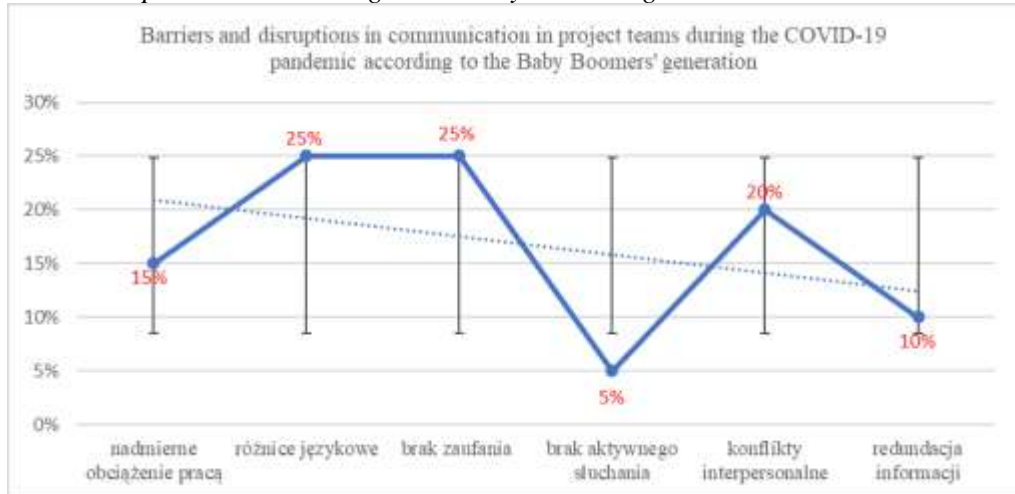
Source: Own elaboration.

The study aimed to diagnose barriers and disruptions in communication within intergenerational project teams during the COVID-19 pandemic. Baby Boomers identified the following main barriers and disruptions in communication: excessive workload, language differences, lack of trust, lack of active listening, interpersonal conflicts, information redundancy, as presented in Figure 1.

The two main communication problems according to the Baby Boomers generation are language differences (25%) and lack of trust (25%). Survey participants emphasised that during the pandemic they lost trust in their team members due to a lack of proficiency in using information and communication technology tools. Another significant issue highlighted by the respondents was language differences in

understanding and interpreting project-related terms, as well as the use of slogans, especially by the Generation Z, which were not understood by other team members.

Figure 1. Barriers and disruptions in communication in project teams during the COVID-19 pandemic according to the Baby Boomers generation.



Source: Own elaboration.

Generation X identified the following main communication problems: information redundancy, interpersonal conflicts, lack of active listening, lack of trust, technical issues with software and computer hardware, and lack of empathy and understanding, as presented in Figure 2.

Figure 2. Barriers and disruptions in communication in project teams according to Generation "X"



Source: Own elaboration.

The key problem in communication among team members, according to Generation X, is a technical issue with software and computer hardware (50%). The second key

problem is a lack of empathy and understanding among project team members (30%). During the COVID-19 pandemic, there were limited contacts with team members, which caused difficulties in handling new IT systems and communication tools, as well as a lack of understanding for Generation X and Baby Boomers.

Information redundancy is another problem indicated by the respondents (6%). An excess of unnecessary information creates chaos in the communication process and often leads to incorrect decision-making. The lack of active listening (5%) and trust (5%) are additional barriers in the communication process. Generation X, along with Baby Boomers, is another group that points out these barriers during the COVID-19 pandemic. The final problem in the communication process, according to the respondents, is interpersonal conflicts (4%), which can lead to intentional disruptions and, consequently, the failure to complete project tasks.

Generation Y pointed out during the COVID-19 pandemic that communication problems were caused by excessive workload (40%). Remote work resulted in a change in work style, leading to a greater number of tasks to be completed in projects and the implementation of IT and communication systems suitable for remote work, which may not have been familiar to the users.

According to the respondents, the second disruption was a lack of IT system and communication tool proficiency (25%), specifically mentioning team members from Generation X. Lack of active listening (15%) and improper work organisation (10%) (inappropriate methods and tools for managing remote employees) were identified as further disruptions in the communication process. The respondents also indicated interpersonal conflicts and information redundancy, both at 5%. Detailed data was presented in Figure 3.

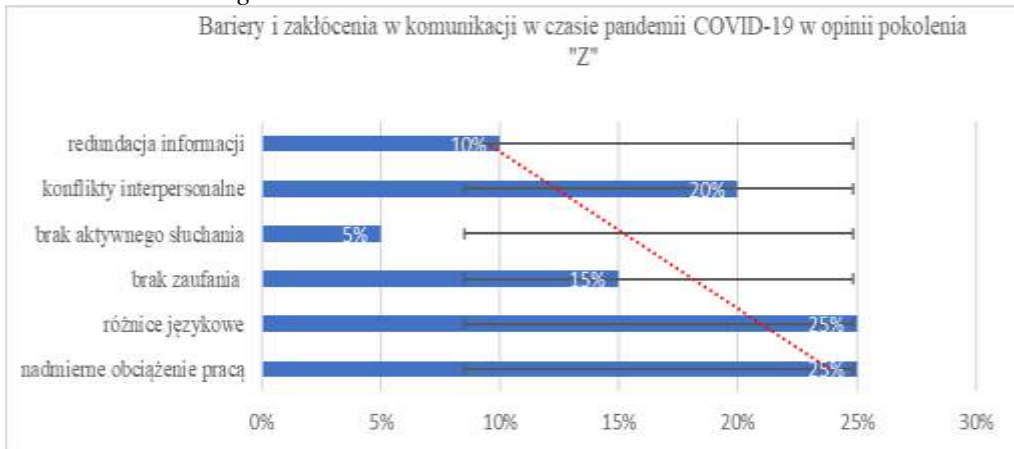
Figure 3. Barriers and Disruptions in Communication Among Project Teams According to Generation "Y"



Source: Own elaboration based on study results.

Members of Generation "Z" indicated in their responses that language differences (25%) and excessive workload (25%) were disruptions in the communication process during the COVID-19 pandemic. Interpersonal conflicts were identified as another disruption in the communication process according to Generation Z. Lack of trust (15%), information redundancy (10%), and lack of active listening (5%) were disruptions mentioned by all generations surveyed. A detailed analysis of the data has been presented in Figure 4.

Figure 4. Barriers and Disruptions in Communication During the COVID-19 Pandemic According to Generation "Z"



Source: Own elaboration based on research results.

During the COVID-19 pandemic, communication within multi-generational project teams experienced significant disruptions and barriers. Safety and health restrictions necessitated remote work and brought about changes in the way team members interacted. Below is a list of key disruptions and barriers:

- *lack of direct contact:* remote work required project teams to abandon traditional in-person meetings and interactions. Direct contact was replaced by communication tools such as email, chat, and video conferences. However, the lack of face-to-face interaction can lead to the loss of nuances in communication, a lack of nonverbal cues, and difficulties in interpreting intentions.
- *technical problems:* remote work requires appropriate tools and a stable internet connection. However, technical issues such as network outages, software problems, or weak internet connections can cause delays, communication interruptions, and difficulties in effective information exchange.

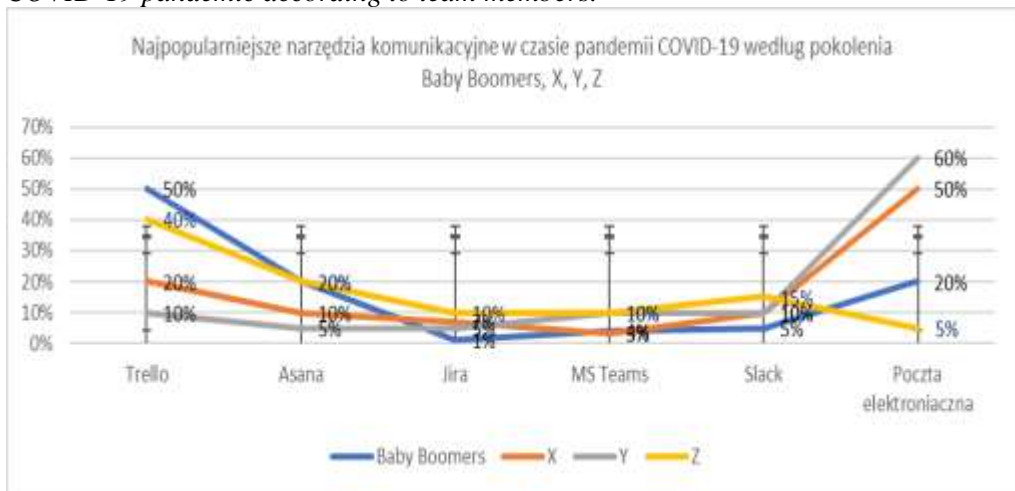
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- *lack of immediate response*: during the COVID-19 pandemic, team members may be geographically dispersed and working in different time zones. This leads to communication delays, especially if answers to questions or requests for information have to wait for the appropriate time of day.
 - *difficulty in interpreting intentions*: direct verbal and nonverbal communication is crucial for conveying intentions and emotions. Virtual communication may be less clear and can lead to misunderstandings because it lacks facial expressions, gestures, or tone of voice.
 - *difficulty in building relations*: direct meetings and live interactions facilitate relationship building and trust among team members. Remote work can limit opportunities for establishing these relationships, which can lead to difficulties in coordination, collaboration, and effective teamwork.
 - *information left undisclosed*: virtual communication can make it difficult to express uncertainties, concerns, and problems. Team members may feel less comfortable sharing difficulties, which can lead to under communication and a lack of full transparency in communication. This, in turn, can impact team effectiveness and hinder real-time problem-solving.
 - *isolation and lack of engagement*: remote work can lead to feelings of isolation and limited team member engagement. The absence of direct interactions can affect motivation, creativity, and participant activity, which can decrease team efficiency.
 - *difficulties in creating and maintaining schedules*: the pandemic can lead to changes in project schedules, both due to shifting priorities and individual team members' situations. Coordinating and adjusting schedules becomes more challenging, leading to delays and decreased effectiveness.
 - *excessive workload*: rushing and overworking team members often have a negative impact on the communication process with both internal and external stakeholders.
 - *lack of trust and active listening*: communication issues also arise from a lack of trust in the conversation partner and a lack of active listening. Isolation and remote task execution do not foster trust-building, which negatively affects the communication process within the project team.
 - *information redundancy*: an excess of unnecessary information transmitted during project execution often leads to the selection of incorrect data, which negatively impacts making sound decisions.

- *language differences*: each generation uses its specific jargon, so frequent communication problems arise from unclear messages and their interpretation, disrupting the communication process. An essential aspect is operationalizing concepts occurring in the project so that each member of the project team understands what each issue entails.
- *interpersonal conflicts*: misunderstandings among team members adversely affect the work atmosphere and communication, often resulting in disruptions in project task implementation.

It is important for project teams to be aware of these disruptions and barriers and take action to minimise them. Investing in appropriate communication tools, organising regular video meetings, enabling flexibility in work, and paying attention to building and maintaining virtual relationships are necessary. Clear communication, translating intentions, clarifying expectations, and regular sharing of information are also crucial for effective communication during the COVID-19 pandemic.

The participants were also asked about their opinion on the most popular communication tools during the COVID-19 pandemic. The results of the study are presented in Figure 5.

Figure 5. The most popular communication tools and technologies during the COVID-19 pandemic according to team members.



Source: Own elaboration based on results of research.

Trello This is a visual tool that enables a team to manage various types of projects, including workflow monitoring, communication, or task tracking. This tool is most popular among the Baby Boomers generation (50%), Generation Z (40%), Generation X (20%), and Generation Y (10%).

Asana: It is one of the popular project management tools available in two versions: free and paid. It proves effective in both project management and overall portfolio management. It enables efficient communication among team members and the project manager. This tool is popular among both the Baby Boomers generation (20%) and Generation Z (20%). As for Generation X, Asana enjoys popularity only among 10% of them, while Generation Y shows interest in it only at a rate of 5%.

Jira: This is a work management tool designed for project teams that need to organise and track their work. This program facilitates communication among internal and external stakeholders. Among the surveyed individuals, 10% from Generation Z consider this tool popular, 7% from Generation X, 5% from Generation Y, and 1% from the Baby Boomers generation.

MS Teams: This is a popular communication tool utilised by both businesses and educational institutions, especially during the COVID-19 pandemic. It enjoys the highest popularity among Generation Y and Generation Z, with 10% usage among each group. Among Generation X, it is utilised by 3%, while among the Baby Boomers generation, it is used by 4%.

Slack: This is a free team collaboration tool that allows various functionalities, including voice and text communication as well as multimedia sharing. It is commonly utilized by project teams. This tool is most popular among surveyed individuals from Generation Z (15%), followed by Generation X (10%) and Generation Y (10%), with Baby Boomers (5%) showing lesser adoption.

E-mail: The tool is most popular among Generation Y (60%), followed by Generation X (50%), Baby Boomers (20%), and Generation Z (5%).

The study also aimed to evaluate the communication tools used by the respondents, and the results are presented in Table 4.

Table 4. Assessment of communication tools used during the COVID-19 pandemic according to members of a multi-generational team.

Tools and communication technology	GENERATION															
	Baby Boomers				X				Y				Z			
	+	++	+++	++++	+	++	+++	++++	+	++	+++	++++	+	++	+++	++
Trello	0%	0%	60%	40%	0%	0%	70%	30%	0%	0%	30%	70%	0%	0%	20%	80%
Asana	0%	0%	40%	60%	0%	0%	40%	60%	0%	0%	50%	50%	0%	0%	10%	90%
Jira	0%	0%	20%	80%	0%	0%	15%	85%	0%	0%	5%	95%	0%	0%	2%	98%
MS Teams	0%	0%	90%	10%	0%	0%	74%	26%	0%	0%	74%	26%	0%	0%	0%	100%

Slack	0 %	0 %	8%	92%	0 %	0 %	90%	10%	0 %	0%	90%	10%	0%	0 %	1%	99 %
E-mail	0 %	0 %	10%	90%	0 %	0 %	20%	80%	0 %	0%	20%	80%	0%	0 %	100 %	0 %

Source: Own elaboration based on results of research.

The conducted research indicates that all generations assess the presented communication tools and technologies at a good and very good level. None of the team members rated the utilised communication tools and technologies as poor or average. The respondents emphasised that project managers organised training for them on the use of remote communication tools and they had the opportunity to choose these tools. Only Generation X highlighted that communication tools were imposed on them, which often resulted in frustration among employees.

5. Conclusion

Communication in multi-generational project teams during the COVID-19 pandemic has been incredibly crucial for effective work and achieving project goals. Team members from different generations bring unique perspectives, experiences, and communication preferences that can influence the effectiveness of their collaboration. In times of pandemic, when most teams are working remotely, communication has become even more crucial. Virtual communication tools such as video conferencing, group chats, and online collaboration platforms have become the primary means of communication.

However, it is important to note that communication preferences vary depending on the generation. Some team members prefer direct video calls, while others favour traditional emails or phone conversations. Therefore, it is important to strike a balance and adapt communication tools to the preferences and needs of all team members.

Generational diversity can also be a source of communication conflicts, especially when different generations have distinct communication styles and expectations. However, through mutual understanding and open communication, project teams can leverage this diversity as a strength. It is important for team members to listen to and respect different perspectives and learn from each other.

The COVID-19 pandemic has brought many challenges but has also opened up new communication possibilities. Remote work has become the norm, and digital tools have facilitated easier and faster information exchange. As a result, project teams can effectively collaborate regardless of geographical distance or generational differences.

However, it is important to remember that nothing can replace direct interpersonal interactions. Therefore, it is valuable to strive for occasional in-person meetings to allow team members to build stronger relationships and foster trust.

In conclusion, communication in multi-generational project teams during the COVID-19 pandemic requires flexibility, empathy, and openness to different perspectives. By working together, team members can inspire and learn from each other, leveraging their unique experiences and skills. It is important for all team members to feel seen, heard, and appreciated, regardless of their age or generation.

However, communication in project teams is not solely about tools and technologies. It also involves building trust and developing the ability to effectively resolve conflicts. An essential aspect of managing a multi-generational virtual team is building trust based on cooperation and mutual understanding (Wachowiak *et al.*, 2010). All generations have much to offer, and synergistic relationships can be created where generational differences are seen as an asset rather than an obstacle. In the context of the COVID-19 pandemic, team members may face stress, isolation, and challenges related to remote work.

Therefore, it is crucial for team leaders to provide emotional support and adjust communication strategies to enable team members to express their concerns and needs. Regular meetings, both in the form of video conferences and individual conversations, can help build relationships and maintain effective communication.

In summary, communication in multi-generational project teams during the COVID-19 pandemic is incredibly important for project success. It requires flexibility, understanding, and openness to different perspectives. Leveraging generational diversity as a strength, rather than an obstacle, by building trust and cooperation is key. Through effective communication, emotional support, and the use of appropriate tools, project teams can achieve their goals even in challenging times of the pandemic.

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