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The role of the leader in managing multigenerational virtual teams

ABSTRACT

Today's workplace evolves rapidly, with the increasing role of virtual teams, which reshape traditional team settings. At the same time, the labour market becomes more generationally diverse, with Baby Boomers, Generation X, Generation Y (Millennials), and Generation Z working side by side, each bringing unique perspectives, expectations, and work styles. In this dynamically changing environment, effective leadership is more critical than ever. The purpose of the article is to present the results of a survey conducted in April 2024 on the expectations of employees from different generations regarding the expected and the current level of competencies of virtual team leaders. On the basis of the research, it was found that each generation has different expectations in terms of competencies of the virtual team leader. The findings also show that there is a discrepancy between expectations and the current level of competences of virtual team leaders.

Keywords: virtual team, generation, leadership

JEL Classification: M54, J21, J24

Introduction

Today's work environment is under constant transformation, driven by dynamic socio-economic, political, and technological changes. Along with these changes, new challenges arise, especially in the context of managing virtual teams, which are becoming increasingly common in the digital era. In such an environment, the key role is played by the leader of the virtual team, whose task is to effectively lead a team that consists of employees from different generations.

Analyzing previous studies and making practical observations, it can be observed that there are significant differences in the preferred leadership competencies of representatives from different generations of employees. Therefore, it is becoming increasingly important to understand these differences and adapt the leadership strategy to the specifics of each generation.

The aim of this paper is to present the results of a survey on the expectations of employees from different generations regarding the competencies of the virtual team leader and the current level of competencies of the virtual team leader. To achieve this end, the following research questions were formulated:

1. What competencies are most valued by employees of different generations in the context of leadership in virtual teams?
2. Are there significant differences in the expectations of employees of different generations regarding the leadership competencies of the virtual team leader?
3. Do the expectations regarding the leadership competencies of the virtual team leader differ from the current assessment of the leader's competency level?

The paper consists of five parts. The first three parts are theoretical and elaborate on the current state of knowledge on the subject based on the results of a literature review. The first part presents an analysis of the concept of a leader in an organization. The second part addresses aspects related to the management of generational diversity and describes the generations present in the labour market. Then the role of the leader in managing a virtual team is presented, followed by the research methodology, and in the next part – the results of own research are presented, where survey research was conducted using a research tool in the form of a survey questionnaire. The work ends with a short conclusion, which summarizes the results of the conducted research.

Literature review

The concept of a leader in the organization

In recent years, the role of the leader and the concept of leadership in organizations has become increasingly important. Today's business environment is more challenging and dynamic than ever before. To remain competitive in the marketplace, organizations must deal

with technological change, globalizing markets, or changing consumer trends [Gębczyńska, Kwiotkowska, 2020]. This reality requires leaders who are flexible, creative, and able to make decisions quickly and effectively. In the digital age, companies must constantly introduce new ideas, products, and services to stay relevant in the marketplace. In this case, we see the role of a leader as a person who is open to new ideas, able to inspire and mobilize the team to think creatively. The aspects listed are the expectations we would like to see in leaders with whom we deal. In seeking the ideal leader, we often focus on the qualities we consider desirable, when in fact leaders may possess a variety of qualities and leadership styles that are effective in achieving organizational goals and in different contexts and situations.

A leader is someone who has a clear vision and is responsible for communicating the organization's values, concepts, and goals to employees and subordinates who are committed to achieving them [Kuc, 2004]. A leader should listen to what people are saying and value them for creating new ideas and concepts [Mrówka, 2021]. In the research conducted by Winch, it was found that a leader should create a perspective for the development of the organization, take responsibility in difficult situations and motivate employees [Winch, 2014].

It is worth keeping in mind that leaders can sometimes lose the balance between the positive aspects mentioned earlier and the negative traits that lead to the dark side of leadership. This is when the dark side becomes visible. Therefore, leaders should be aware that the most effective type of leadership is the one that is socially responsible, and leaders should be aware of the responsibility for their own ethical behaviour, development, and results [Stachowicz-Stanusch, 2011].

Leaders versus managers

In modern organizations, the leader is often identified with the manager. There is a lot of controversy around this. We often hear that a good manager should be an excellent leader. Researchers emphasize that these two concepts have many common aspects, but we should not treat them as synonyms. However, not every leader acts as a manager, just as not every manager is a leader. In fact, not every manager demonstrates leadership skills and can be a leader. However, leadership is not only sought in managers. Increasingly, people who are not in management positions show leadership behaviours and are informal leaders. As a result, not every leader acts as a manager, nor does every leader hold a management position [Adair, 2003].

Leaders differ from ordinary managers in their ability to build relationships based on charisma and actions, which is the foundation of respect and trust in them. Managers focus on the formal aspect of management, creating conditions for effective task execution, while leaders base their leadership on the ability to persuade and create an inspiring vision. In this way, leadership is seen as a higher level of management.

Leadership and management are different concepts, but they share common characteristics. Both leadership and management focus on the effective execution of tasks and achievement of

goals through the cooperation of a group of people. An effective combination of management and leadership is key to maintaining an organized and highly motivated team ready to achieve success. However, it is important to keep a balance between the two, as the dominance of one can lead to a loss of motivation or disorganization among employees.

Leadership competencies

The concept of competency refers to the set of skills, knowledge, personal characteristics and behaviours that are essential and necessary for the effective performance of a specific role, task or job in a given organizational context. Competencies encompass a wide range of skills, including technical skills, soft skills, professional knowledge, personal characteristics and appropriate behaviours that allow an individual to effectively contribute to the achievement of organizational goals [Kupczyk, Stor, 2017]. It is assumed that competent people are those who meet expectations for achieving specific results. They use not only their knowledge, but also their skills and personal characteristics to achieve the goals and standards assigned to their functions [Armstrong, 2000].

A leader does not necessarily have to have innate predispositions, and one can only identify certain desirable personality traits in a leader. It is crucial that a leader possesses characteristics that are important in a particular organization or business environment [Adair, 2003]. There is no specific set of attributes that will always make someone a leader in every situation. However, there are certain characteristics that make a candidate for leadership an effective leader (listed in Table 1).

Due to changing market conditions, the role of the leader is becoming crucial, because the effective use of human resources depends on leaders. Employees expect the leader not only to be their boss, but also to have the qualities and skills necessary for effective management, such as understanding the needs of employees, the ability to act under pressure, competence, objectivity and the ability to listen to others [Wyród-Wróbel, Biesok, 2018].

Table 1. Leader's characteristics

Author	Characteristics
Katz [1954]	<ul style="list-style-type: none"> • social skills • technical skills • conceptual skills
Oblój [1974]	<ul style="list-style-type: none"> • self-confidence • ambition • success orientation • assertiveness • resistance to stress • persistence and determination • courage • intelligence

Author	Characteristics
Stogdill [1974]	<ul style="list-style-type: none"> • strong drive for responsibility and task performance • energy and perseverance in pursuing goals • entrepreneurship • creativity • self-confidence • willingness to accept the consequences of decisions made • ability to manage stress • ability to tolerate delays • ability to influence the behaviour of others • ability to structure systems of social interactions

Source: Kuc, 2004.

Management of generational diversity

Generations: the concept and essence of multigenerational management

Today's labour market is influenced significantly by the different generations working in it at the same time. In the survey *Different Generations – One Organization* conducted as part of the HR Director Club project in cooperation with ThinkTank [2016] among more than 300 owners, managers, and specialists from Polish organizations, 76% of the respondents believe that people from different generations have different approaches to work and different expectations from the employer. At the same time, 87% of the respondents recognized the benefits of cooperation between members from different generations, especially the exchange of knowledge and experience between generations. Despite the visible benefits, 31% of the respondents observed disputes and conflicts resulting from multigenerational differences.

Managing generational diversity is becoming an increasingly important element of human resources management strategies. Currently, there are four generations on the labour market: Baby Boomers, Generation X, Generation Y, and Generation Z [Żarczyńska-Dobiesz, Chomątowska, 2016]. Each generation has had to deal with various social, cultural, economic, and political events, which is reflected in differences in, among others, their approach to work, attitude to authorities, adaptation to change, commitment to work, and loyalty to employers and co-workers. As a result, managers and HR departments face significant challenges related to the effective use of the potential of different age groups and the adaptation of appropriate tools and practices of human resources management [Hysa, 2016]. Although research shows the stability of the hierarchy of values between generations in terms of family, work according to interests, friendship, a peaceful and stable life, and a good salary [Winch, 2019], paying attention by managers to understanding the specific functioning, needs, motivations, and values that guide different generations of employees can bring benefits in the form of effective work and harmonious teamwork. As a result, older generations will be able to use skillfully IT tools and modern technologies that improve work and that younger generations can handle

better. Additionally, younger generations will be able to draw on the knowledge and experience developed by older generations. A manager who manages a multigenerational team should primarily consider differences in needs, motivations, and ways of acquiring knowledge and skills. Thanks to a comprehensive approach, teamwork can create a synergy effect, i.e. added value, where the result generated by the team is greater than the sum of the individual achievements of its members. Skipping any of these elements can lead to ineffective work of a diverse team and, consequently, to a negative synergy effect [Gzowska, Gęgotek, 2017].

Characteristics of generations present in the labour market

Indicating precisely the beginning and end of a given generation is not obvious. The adopted time reference points are an attempt to outline the boundaries where the differences between generations begin to blur [Bencsik, Horváth-Csikós, Juhász, 2016]. In this paper, the following split of generations present in the labour market was adopted [Smolbik-Jęczmień, 2017]:

- Baby Boomer generation: born between 1946 and 1964;
- Generation X: born between 1965 and 1979;
- Generation Y: born between 1980 and 1994;
- Generation Z: born after 1995.

The Baby Boomer generation is a so-called demographic boom generation. A traditional approach to pursuing a career is the main characteristic of this generation. Representatives of the Baby Boomer generation do not prefer professional, geographical, and psychological mobility. They are not flexible and do not have adaptive skills. However, they are very loyal to their employer, they expect stability and job security. Most often they spend their professional career in one organization until retirement. They are committed to their work, responsible and self-sufficient [Smolbik-Jęczmień, 2017]. The research conducted by Pentor Research for the Lower Silesian Labour Office [2010] indicates that representatives of the Baby Boomer generation are perceived positively by employers, thus emphasizing the most important aspects of this generation, i.e. having extensive professional experience, a sense of responsibility and being conscientious and disciplined.

Generation X grew up during the economic crisis of the seventies. Work is a value for them, they are willing to sacrifice themselves for work. They are characterized by the slogan "I live to work." In interpersonal contacts, they prefer face-to-face ones [Wiktorowicz, Warwas, 2017]. They act in a conservative way, not showing creativity and flexibility, fearing the loss of life stability, achieved positions, and financial status [Weroniczak, 2010]. In the research conducted in 2006–2009 by Smolbik-Jęczmień [2017], representatives of Generation X present a traditional approach to their professional career, emphasizing the importance of vertical advancement and a sense of job security, satisfaction with the work performed, and a high financial position.

The generation raised in the era of globalization, Poland's membership in the European Union, and the availability of modern technologies is the Y Generation, often called Millennials. Representatives of this generation are open to change and quickly adapt to new conditions. They are willing to work in teams, are multitasking, value flexibility at work and quick feedback [Wiktorowicz, Warwas, 2017]. According to the research conducted by Smolbik-Jęczmień [2017], representatives of Generation Y identify their professional career mainly with the need for continuous development and improvement of their skills, maintaining a balance between work and personal life, having autonomy and independence and a sense of fulfillment, searching for new challenges, professional experiences, and job satisfaction.

The youngest generation, whose oldest representatives have already entered the labour market, is the Z Generation. Representatives of this generation, born between 1995 and 2009, are characterized by great skills in using modern technologies. They cannot imagine a world without a computer, telephone, and access to the Internet. They have high requirements for future employers, are demanding, and show great self-confidence [Smolbik-Jęczmień, 2017]. Żarczyńska-Dobiesz and Chomątkowska emphasize that Generation Z, which grew up in the era of computers and the Internet, expects that modern technology will also be present in the work environment, enabling interactions with superiors, their team, and clients [Żarczyńska-Dobiesz, Chomątkowska, 2014].

The right approach of managers to generational differences in companies is currently extremely important, as it affects their daily activities and decisions. It is important for managers to see the positive aspects related to age diversity in teams and treat it as a natural element of development, and not as sudden or radical changes. Working in teams consisting of representatives of different generations is becoming more and more common, so leaders must take appropriate actions to use the potential of each generation and meet the goals set by organizations. This is a demanding task that requires mindfulness, leadership skills, and developed social and interpersonal competencies.

The importance of the leader's role in managing a virtual team

Virtual teams are getting more and more popular and are becoming an integral part of organizations, mostly in corporations, where they represent a potential that, if properly used, can constitute a competitive advantage. Therefore, the need for effective leadership in managing in a virtual environment is crucial to achieve success in an organization [Hossein, 2012].

A virtual team is a form of work organization that enables professional tasks to be performed regardless of geographic distance. A virtual team is a group of distributed co-workers who communicate and strive to achieve specific goals using telecommunications tools and technologies. People working in virtual teams use technology daily to communicate, instead of communicating in direct face-to-face contact. This makes a virtual team function

in a completely different way than traditional teams, where employees have direct contact with each other in the office. For this reason, in the absence of an effective virtual team leader, projects delivered by virtual teams may end in failure [Weisban, 2008].

It is important to understand that in today's world we cannot escape from virtual teams, and it is certain that at some point in our careers many people will work as a member of a virtual team. This modern reality requires us to adapt and understand the methods and techniques that can lead a virtual team to achieve its goals. Virtual teams can face many more challenges compared to traditional teams and this can be overcome by developing effective virtual team leadership [Hunsaker, Hunsaker, 2008].

Previous studies have often been limited to indicating the age ranges of respondents, missing specific names of generations, such as Baby Boomers, Generation X, Generation Y (Millennials), or Generation Z. However, there is a need for a deeper analysis of these differences, because they influence the shaping of management, communication and cooperation strategies in virtual teams. As generations change and evolve, it becomes crucial to understand their values, preferences, and ways of communicating, which can significantly affect the effectiveness of managing virtual teams from a leadership perspective.

Gilson et al. emphasize the importance of research on leadership in virtual teams and because of the younger generations who are proficient in using technology, Gilson emphasizes the importance of research into the impact of generations on virtual teams [Gilson et al., 2015].

To sum up, it can be stated that the academia has not addressed generational differences in virtual teams directly, and research into the role of the leader in managing multigenerational virtual teams has not been conducted so far. This is a clear indication of the existence of a research gap in this area and therefore, is a reason for the conduct of research.

Methodology

The study adopted a quantitative approach and was conducted using the CAWI (Computer Assisted Web Interview) technique, which involved conducting a direct interview via the Internet, which included a self-completed questionnaire. The study was conducted in April 2024 using the Microsoft Forms web application. The survey that the respondents received was anonymous, consisted of closed and open-ended questions, with a predominance of closed questions, and was prepared in two language versions: Polish and English. A 5-point Likert scale was used to assess the state of expected and actual competencies, where 1 means "I completely disagree" and 5 means "I completely agree". The competencies were divided into four categories: managerial, social, personal, and technical. Each of them contained competencies that the respondents could agree with at their discretion. The split of these competencies is presented in Table 2.

Table 2. Breakdown of competencies presented in four categories: the model used in the survey questionnaire

Managerial competencies	<ul style="list-style-type: none"> • enables flexible working hours • invests in the team's professional development • creates anonymous employee engagement surveys that allow different opinions to be expressed • gives one-to-one attention to team members and praises their personal achievement • does not make public the failures of team members, but gives criticism face to face • ensures that individual achievements are reflected in the salary • holds regular performance review meetings • distributes/delegates work among team members according to their capabilities • coordinates and manages the team • monitors progress on assigned tasks • is a role model for the team members • demonstrates commitment to achieving company goals • sets the agenda in the meeting invitation and mentions it at the beginning of the meeting • gives autonomy to team members • avoids micromanagement
Social competencies	<ul style="list-style-type: none"> • has an ability to manage a multicultural team • possesses a high level communication skills • leads the meeting by exchanging views with team members • provides constant feedback to team members • encourages all team members to be active during the meeting by organizing discussions • eliminates distractions during the meeting • takes precautions by anticipating conflicts that may arise • has problem solving skills
Personal competencies	<ul style="list-style-type: none"> • is trustworthy and dependable • has a strong sense of responsibility • has good analytical skills • is a good decision maker • uses gestures, facial expressions, and tone of voice effectively
Technical competencies	<ul style="list-style-type: none"> • has a strong technical knowledge of the virtual communication tools • is open to innovation

Source: own elaboration based on Batırlık et al., 2022.

Results

A total of 65 individuals took part in the study, of which 51 respondents confirmed working in virtual teams, communicating primarily through electronic means. Therefore, only the respondents who work in virtual teams daily were selected for further analysis as part of the paper. Table 3 presents the characteristics of the respondents.

Table 3. Sample characteristics

Variables		Frequency	%
Gender	Female	29	57
	Male	22	43
	Total	51	100
Age	Gen Z: 22 to 29	22	43
	Gen Y: 30 to 44	15	29
	Gen X: 45 to 59	14	27
	Total	51	100

cont. Table 3

Variables		Frequency	%
Industry	Advanced technologies	6	12
	Banking and Insurance	8	15
	Consulting	4	8
	Energy and Municipal Services	1	2
	FMCG	2	4
	Information & Communication Technologies (ICT)	8	16
	Media and Entertainment	4	8
	Medicine and Pharmacy	3	6
	Other	10	19
	Public Administration	2	4
	Transport and Logistics	3	6
	Total	51	100
Years of work experience	Less than one year	5	10
	1–3 years	14	27
	4–10 years	12	24
	11–20 years	13	25
	More than 20 years	7	14
	Total	51	100
Years of working in virtual teams	Less than one year	8	16
	1–3 years	19	37
	4–10 years	18	35
	11–20 years	6	12
	Total	51	100

Source: own study.

The results of the study indicate a diverse approach to the expectations of individual age groups. Each of them is characterized by a different competency need for a virtual team leader. Tables 4, 5, and 6 present the percentage distribution of each generation's answers.

Table 4. Percentage distribution of respondents' answers: Generation Z (%)

	Scale	1: Completely disagree	2: Disagree	3: Neither disagree nor agree	4: Agree	5: Completely agree
Social competencies	has an ability to manage a multicultural team	Expected level of competence				
		0	0	22.73	31.82	45.45
		Actual level of competence				
			10	30	40	20
	possesses a high level communication skills	Expected level of competence				
		0	4.55	9.09	27.27	59.09
		Actual level of competence				
			4.55	22.73	22.73	50
	leads the meeting by exchanging views with team members	Expected level of competence				
		0		27.27	50	22.73
		Actual level of competence				
		4.55	18.18	4.55	54.55	18.18

	Scale	1: Completely disagree	2: Disagree	3: Neither disagree nor agree	4: Agree	5: Completely agree
Social competencies	provides constant feedback to team members	Expected level of competence				
		0		9.09	18.18	72.73
		Actual level of the competence				
			9.09	4.55	50	36.36
	encourages all team members to be active during the meeting by organizing discussions	Expected level of competence				
		0		22.73	50.00	27.27
		Actual level of competence				
		9.09	4.55	9.09	40.91	36.36
	eliminates distractions during the meeting	Expected level of competence				
		0	4.55	31.82	36.36	27.27
		Actual level of competence				
		9.09	13.64	9.09	31.82	36.36
	takes precautions by anticipating conflicts that may arise	Expected level of competence				
		0	4.55	18.18	59.09	18.18
		Actual level of competence				
		4.55	9.09	27.27	27.27	31.82
	has problem solving skills	Expected level of competence				
		0	4.55	4.55	31.82	59.09
		Actual level of competence				
		4.55		13.64	45.45	36.36
Managerial competencies	enables flexible working hours	Expected level of competence				
		0	0	13.64	27.27	59.09
		Actual level of competence				
			6.45	22.58	29.03	41.94
	invests in the team's professional development	Expected level of competence				
				9.09	45.45	45.45
		Actual level of competence				
			9.09	22.73	36.36	31.82
	creates anonymous employee engagement surveys that allow different opinions to be expressed	Expected level of competence				
		0	4.55	22.73	31.82	40.91
		Actual level of competence				
		18.18	13.64	18.18	9.09	40.91
	gives one-to-one attention to team members and praises their personal achievement	Expected level of competence				
				22.73	36.36	40.91
		Actual level of competence				
		4.55		4.55	45.45	45.45

cont. Table 4

	Scale	1: Completely disagree	2: Disagree	3: Neither disagree nor agree	4: Agree	5: Completely agree
Managerial competencies	does not make public the failures of team members, but gives criticism face to face	Expected level of competence				
			4.55	13.64	27.27	54.55
		Actual level of competence				
		4.55	9.09	22.73	45.45	18.18
	ensures that individual achievements are reflected in the salary	Expected level of competence				
			4.55	9.09	40.91	45.45
		Actual level of competence				
		13.64	9.09	22.73	22.73	31.82
	holds regular performance review meetings	Expected level of competence				
			4.55	18.18	40.91	36.36
		Actual level of competence				
			9.09	18.18	40.91	31.82
	distributes/delegates work among team members according to their capabilities	Expected level of competence				
			4.55	13.64	40.91	40.91
		Actual level of competence				
			18.18	13.64	45.45	22.73
	coordinates and manages the team	Expected level of competence				
				13.64	27.27	59.09
		Actual level of competence				
			4.55	18.18	40.91	36.36
	monitors progress on assigned tasks	Expected level of competence				
				13.64	50	36.36
		Actual level of competence				
			4.55		54.55	40.91
	is a role model for the team members	Expected level of competence				
		4.55	9.09	27.27	18.18	40.91
		Actual level of competence				
		9.09	4.55	27.27	40.91	18.18
	demonstrates commitment to achieving company goals	Expected level of competence				
			4.55	13.64	22.73	59.09
		Actual level of competence				
			9.09	18.18	13.64	59.09
	sets the agenda in the meeting invitation and mentions it at the beginning of the meeting	Expected level of competence				
				50	27.27	22.73
		Actual level of competence				
		4.55	4.55	9.09	68.18	13.64

	Scale	1: Completely disagree	2: Disagree	3: Neither disagree nor agree	4: Agree	5: Completely agree
Managerial competencies	gives team members autonomy	Expected level of competence				
			4.55	9.09	50	36.36
		Actual level of competence				
			9.09	13.64	45.45	31.82
	avoids micromanagement	Expected level of competence				
			4.55	45.45	31.82	18.18
		Actual level of competence				
			4.55	45.45	31.82	18.18
Personal competencies	is trustworthy and dependable	Expected level of competence				
				9.09	22.73	68.18
		Actual level of competence				
			4.55	13.64	36.36	45.45
	has a strong sense of responsibility	Expected level of competence				
			4.55	13.64	13.64	68.18
		Actual level of competence				
			4.55	18.18	40.91	36.36
	has good analytical skills	Expected level of competence				
			4.55	22.73	36.36	36.36
		Actual level of competence				
			9.09	18.18	45.45	27.27
	is a good decision maker	Expected level of competence				
				18.18	31.82	50
		Actual level of competence				
			4.55	27.27	50	18.18
	uses gestures, facial expressions, and tone of voice effective	Expected level of competence				
			4.55	22.73	40.91	27.27
		Actual level of competence				
			4.55	36.36	27.27	31.82
Technical competencies	has a strong technical knowledge of virtual communication tools	Expected level of competence				
				18.18	31.82	50
		Actual level of competence				
			5	25	50	20
	is open to innovation	Expected level of competence				
		4.55		9.09	31.82	54.55
		Actual level of competence				
			4.55	22.73	45.45	27.27

Source: own study.

The representatives of Generation Z showed the highest expectations in terms of technical competences: 86.36%. Gen Z representatives agree or completely agree that a virtual team leader should be open to innovation.

The survey results show that in terms of expectations regarding social competencies, 90.91% representatives of Gen Z agree or completely agree that a virtual team leader should provide constant feedback to team members and should have problem-solving skills.

In terms of expectations regarding personal competencies, 90.91% representatives of Gen Z agree or completely agree that a virtual team leader should be trustworthy and dependable.

Regarding managerial competencies, 90.91% of the respondents of this generation agree or completely agree with the statement that a virtual team leader should invest in the professional development of their team.

The analysis of the obtained results leads to the conclusion that the smallest discrepancy between expectations and the current state, according to the representatives of Generation Z, occurs in managerial competencies. Although these respondents showed the smallest expectations regarding managerial competencies, their current level was assessed positively. On the other hand, the greatest difference between the expectations and reality occurs in technical competencies.

Table 5. Percentage distribution of respondents' answers: Generation Y (%)

	Scale	1 – Completely disagree	2 – Disagree	3 – Neither disagree nor agree	4 – Agree	5 – Completely agree
Social competencies	has an ability to manage a multicultural team	Expected level of competence				
			6.67		20	73.33
		Actual level of competence				
			15.38	15.38	30.77	38.46
	possesses high level communication skills	Expected level of competence				
				6.67	20	73.33
		Actual level of competence				
			6.67	20	40	33.33
	leads the meeting by exchanging views with team members	Expected level of competence				
			6.67	20	26.67	46.67
		Actual level of competence				
		6.67	26.67	26.67	20	20
	provides constant feedback to the team members	Expected level of competence				
				13.33	13.33	73.33
		Actual level of competence				
		13.33	20	6.67	26.67	33.33
	encourages all team members to be active during the meeting by organizing discussions	Expected level of competence				
		6.67	6.67	20	26.67	40
		Actual level of competence				
		6.67	20	26.67	26.67	20

	Scale	1 – Completely disagree	2 – Disagree	3 – Neither disagree nor agree	4 – Agree	5 – Completely agree
Social competencies	eliminates distractions during the meeting	Expected level of competence				
				6.67	33.33	60
		Actual level of competence				
		20	6.67	13.33	26.67	33.33
	takes precautions by anticipating conflicts that may arise	Expected level of competence				
			6.67	20	46.67	26.67
		Actual level of competence				
		20	26.67	26.67	20	6.67
	has problem solving skills	Expected level of competence				
				13.33	13.33	73.33
		Actual level of competence				
		20	13.33	20	20	26.67
Managerial competencies	enables flexible working hours	Expected level of competence				
			6.67	6.67	33.33	53.33
		Actual level of competence				
		7.69	7.69	15.38	15.38	53.85
	invests in the team's professional development	Expected level of competence				
			6.67	6.67	20	66.67
		Actual level of the competence				
		6.67	13.33	33.33	26.67	20
	creates anonymous employee engagement surveys that allow different opinions to be expressed	Expected level of competence				
				13.33	40	46.67
		Actual level of competence				
		40	6.67		20	33.33
	gives one-to-one attention to team members and praises their personal achievement	Expected level of competence				
		6.67			33.33	60
		Actual level of competence				
		6.67	20	13.33	26.67	33.33
	does not make public the failures of team members, but gives criticism face to face	Expected level of competence				
			6.67	13.33	6.67	73.33
		Actual level of competence				
			20	6.67	6.67	66.67
	ensures that individual achievements are reflected in the salary	Expected level of competence				
				6.67	20	73.33
		Actual level of competence				
		20	26.67	13.33	20	20
	holds regular performance review meetings	Expected level of competence				
			13.33		33.33	53.33
		Actual level of competence				
		13.33	20	13.33	26.67	26.67

cont. Table 5

	Scale	1 – Completely disagree	2 – Disagree	3 – Neither disagree nor agree	4 – Agree	5 – Completely agree
Managerial competencies	distributes/delegates work among team members according to their capabilities	Expected level of competence				
			6.67	20	26.67	46.67
		Actual level of competence				
		6.67	13.33	13.33	33.33	33.33
	coordinates and manages the team	Expected level of competence				
				26.67	13.33	60
		Actual level of competence				
		13.33	20	40	36.67	
	monitors progress on assigned tasks	Expected level of competence				
				13.33	46.67	40
		Actual level of competence				
		13.33	6.67	13.33	46.67	20
	is a role model for the team members	Expected level of competence				
		6.67		20	26.67	46.67
		Actual level of competence				
		20	20	20	26.67	13.33
	demonstrates commitment to achieving company goals	Expected level of competence				
				26.67	20	53.33
		Actual level of competence				
			13.33	40	13.33	33.33
	sets the agenda in the meeting invitation and mentions it at the beginning of the meeting	Expected level of competence				
		6.67	6.67	13.33	46.67	26.67
		Actual level of competence				
		20	13.33	33.33	20	13.33
	gives the team members autonomy	Expected level of competence				
			6.67	13.33	33.33	46.67
		Actual level of competence				
		6.67	13.33	20	6.67	53.33
	avoids micromanagement	Expected level of competence				
			13.33	53.33	33.33	
		Actual level of competence				
		6.67	6.67	20	26.67	40
Personal competencies	is trustworthy and dependable	Expected level of competence				
			13.33	6.67	13.33	66.67
		Actual level of competence				
		13.33	20	20	40	6.67
	has a strong sense of responsibility	Expected level of competence				
			6.67		26.67	66.67
		Actual level of competence				
		6.67	6.67	40	33.33	13.33

	Scale	1 – Completely disagree	2 – Disagree	3 – Neither disagree nor agree	4 – Agree	5 – Completely agree
Personal competencies	has good analytical skills	Expected level of competence				
		6.67	6.67	6.67	40	40
		Actual level of competence				
		6.67		33.33	26.67	33.33
	is a good decision maker	Expected level of competence				
				20	20	60
		Actual level of competence				
		6.67	20	20	26.67	26.67
	uses gestures, facial expressions, and tone of voice effectively	Expected level of competence				
				26.67	26.67	46.67
		Actual level of competence				
		13.33	6.67	13.33	33.33	33.33
Technical competencies	has a strong technical knowledge of virtual communication tools	Expected level of competence				
			6.67	40	20	33.33
		Actual level of competence				
			23.08	23.08	23.08	30.77
	is open to innovation	Expected level of competence				
				6.67	26.67	66.67
		Actual level of competence				
			6.67	13.33	40	40

Source: own study.

The Generation Y representatives showed the highest expectations in relation to social competencies, and among them 93.33% representatives of this generation agree or completely agree that a virtual team leader should have an ability to manage a multicultural team, possess high communication skills, and should eliminate distractions during the meeting.

The expectations in terms of personal competencies indicate that 93.33% representatives of Generation Y agree or completely agree that a virtual team leader should have a strong sense of responsibility.

In the further part of the research on managerial competencies, 93.33% of Gen Y agree or completely agree that the leader of a virtual team should give one-to-one attention to team members and praise their personal achievement and should ensure that individual achievements are reflected in the salary.

In the context of technical competencies, 93.33% representatives of Generation Y agree or completely agree that the leader of a virtual team should be open to innovation.

The Generation Y representatives assessed technical competencies best in terms of the current state of competence compared to expectations, while the current level of social competencies was much lower than expected.

Table 6. Percentage distribution of respondents' answers: Generation X (%)

	Scale	1 – Completely disagree	2 - Disagree	3 - Neither disagree nor agree	4 – Agree	5 – Completely agree
Social competencies	has an ability to manage a multicultural team	Expected level of competence				
			21.43		14.29	64.29
		Actual level of competence				
			27.27	9.09	45.45	18.18
	possesses high level communication skills	Expected level of competence				
		7.14			14.29	78.57
		Actual level of competence				
		14.29	7.14	14.29	35.71	28.57
	leads the meeting by exchanging views with team members	Expected level of competence				
			14.29		21.43	64.29
		Actual level of competence				
		21.43	35.71	7.14	21.43	14.29
	provides constant feedback to the team members	Expected level of competence				
			7.14	7.14	21.43	64.29
		Actual level of competence				
		14.29	42.86	7.14	28.57	7.14
	encourages all team members to be active during the meeting by organizing discussions	Expected level of competence				
		6.67	6.67	20	26.67	40
		Actual level of competence				
		35.71	21.43	28.57	7.14	7.14
	eliminates distractions during the meeting	Expected level of competence				
			14.29	14.29	28.57	42.86
		Actual level of competence				
		35.71	21.43	28.57	7.14	7.14
	takes precautions by anticipating conflicts that may arise	Expected level of competence				
			28.57		14.29	57.14
		Actual level of competence				
		57.14	14.29	7.14	14.29	7.14
	has problem solving skills	Expected level of competence				
		7.14	7.14		21.43	64.29
		Actual level of competence				
		21.43	28.57	7.14	35.71	7.14
Managerial competencies	enables flexible working hours	Expected level of competence				
			28.57	7.14	28.57	35.71
		Actual level of competence				
		18.18	36.36	18.18	9.09	18.18
	invests in the team's professional development	Expected level of competence				
		7.14			14.29	78.57
		Actual level of competence				
		21.43	14.29	14.29	35.71	14.29

	Scale	1 – Completely disagree	2 - Disagree	3 - Neither disagree nor agree	4 – Agree	5 – Completely agree
Managerial competencies	creates anonymous employee engagement surveys that allow different opinions to be expressed	Expected level of competence				
			7.14	21.43	42.86	28.57
		Actual level of competence				
		42.86	35.71	7.14	14.29	
	gives one-to-one attention to team members and praises their personal achievement	Expected level of competence				
		7.14		7.14	21.43	64.29
		Actual level of competence				
		28.57	35.71		28.57	7.14
	does not make public the failures of team members, but gives criticism face to face	Expected level of competence				
			7.14	7.14	14.29	71.43
		Actual level of competence				
		7.14	28.57	14.29	35.71	14.29
	ensures that individual achievements are reflected in the salary	Expected level of competence				
			7.14	14.29	21.43	57.14
		Actual level of competence				
		35.71	21.43	14.29	21.43	7.14
	holds regular performance review meetings	Expected level of competence				
		7.14			21.43	71.43
		Actual level of competence				
		14.29	21.43	14.29	35.71	14.29
	distributes/delegates work among team members according to their capabilities	Expected level of competence				
			7.14	7.14	28.57	57.14
		Actual level of competence				
		7.14	14.29	35.71	28.57	14.29
	coordinates and manages the team	Expected level of competence				
		7.14			7.14	85.71
		Actual level of competence				
		7.14			57.14	35.71
	monitors progress on assigned tasks	Expected level of competence				
		7.14				92.86
		Actual level of competence				
		7.14		14.29	50	28.57
	is a role model for the team members	Expected level of competence				
		7.14		7.14	21.43	64.29
		Actual level of competence				
		50	7.14		35.71	7.14
	demonstrates commitment to achieving company goals	Expected level of competence				
		7.14			14.29	78.57
		Actual level of competence				
		7.14	7.14	14.29	50	21.43

cont. Table 6

	Scale	1 – Completely disagree	2 - Disagree	3 - Neither disagree nor agree	4 – Agree	5 – Completely agree
Managerial competencies	sets the agenda in the meeting invitation and mentions it at the beginning of the meeting	Expected level of competence				
		7.14	14.29	14.29	28.57	35.71
		Actual level of competence				
		35.71	21.43		28.57	14.29
	gives the team members autonomy	Expected level of competence				
		7.14	14.29	7.14	21.43	50
		Actual level of competence				
		42.86	28.57		21.43	7.14
	avoids micromanagement	Expected level of competence				
		7.14	14.29	7.14	14.29	57.14
		Actual level of competence				
		57.14	14.29		21.43	7.14
Personal competencies	is trustworthy and dependable	Expected level of competence				
		7.14			28.57	64.29
		Actual level of competence				
		14.29	7.14	28.57	42.86	7.14
	has a strong sense of responsibility	Expected level of competence				
		7.14			14.29	78.57
		Actual level of competence				
		14.29	14.29	21.43	28.57	21.43
	has good analytical skills	Expected level of competence				
				14.29	35.71	50
		Actual level of competence				
		7.14	35.71	21.43	28.57	7.14
	is a good decision maker	Expected level of competence				
			7.14		7.14	85.71
		Actual level of competence				
		14.29	14.29	14.29	35.71	21.43
	uses gestures, facial expressions, and tone of voice effectively	Expected level of competence				
			21	7.14	35.71	35.71
		Actual level of competence				
		28.57	21.43	28.57	21.43	
Technical competencies	has a strong technical knowledge of virtual communication tools	Expected level of competence				
			6.67	40	20	33.33
		Actual level of competence				
		9.09		45.45	18.18	27.27
	is open to innovation	Expected level of competence				
				6.67	26.67	66.67
		Actual level of competence				
		14.29	28.57	14.29	28.57	14.29

Source: own study.

Among the expected personal competencies, 92.86% Gen Xers agree or completely agree that a virtual team leader should be trustworthy and dependable, have a strong sense of responsibility, and should be a good decision maker.

In the context of managerial competencies, 92.86% Gen Xers agree or completely agree that a virtual team leader should invest in the professional development of their team, hold regular performance review meetings, coordinate and manage the team, monitor progress on assigned tasks, and demonstrate commitment to achieving company goals.

The analysis of the results in the context of social competencies shows that 92.86% Gen Xers agree or completely agree that a virtual team leader should possess a high level communication skills.

In the context of technical competencies, 92.86% representatives of Generation X agree or completely agree that a virtual team leader should be open to innovation.

Among the representatives of Generation X, the greatest discrepancies between the expected and actual level of competencies of virtual team leaders were observed. The representatives of Generation X assessed managerial competencies the best in terms of the current state of competence, although this result differs the most from the assessment of the current state of competence indicated by Generations Y and Z, and the indicated actual level of managerial competencies was much lower than expected. The greatest discrepancy, however, occurs in terms of social competencies.

The conducted study shows that the topic of generational differences in the context of virtual teams is extremely important not only from the perspective of the leader but also from the perspective of the organization. The analysis of the results indicates the different expectations regarding the competencies of the virtual team leader. Although in terms of expected personal competencies the results are similar, and representatives of different generations emphasize that the leader of a virtual team should be trustworthy, have a strong sense of responsibility, and an ability to make decisions, Generation Z values technical competencies the most, such as innovation and social skills, including constant feedback and an ability to solve problems. For Generation Y the priority is social competencies, in particular an ability to manage an intercultural team and communication. On the other hand, Generation X, in addition to personal competencies, places the greatest emphasis on managerial competencies, such as investing in the professional development of the team, coordinating and leading the team, monitoring the progress of tasks, and engaging in the implementation of the company's goals. The Generation X representatives showed the greatest discrepancies between the expected and actual levels of competence of virtual team leaders. The Generation X representatives gave the best assessment of managerial competencies in terms of their current state of competence, although this result differs the most from the assessment of the current state of competence indicated by Generations Y and Z, and the indicated current level of managerial competencies was much lower than expected. The greatest discrepancy, however, occurs in terms of social competencies.

A more detailed examination of generational differences provides significantly more information. The preferences regarding the competencies of a virtual team leader depend on the employee's age and professional experience. The higher expectations in social or managerial competencies contrast with the preferences regarding technical competencies in the group of Generation Z representatives. This is a generation that is just entering the labour market and naturally surrounds itself with technology and uses social media and the Internet. It is not as strongly connected to the workplace or team as the representatives of Generations Y or X, which is why their approach to development in the employee-supervisor relationship is not a priority. This approach corresponds to the results of the study regarding managerial competencies, which were not considered by the representatives of Generation Z as important in the context of a virtual team leader.

The findings suggest further development of virtual team leader competencies. It is worth noting that the collected results and the conclusions drawn from them represent only a certain characteristic trend for the selected group and can be treated as pilot studies. They show specific tendencies present in the analyzed group of respondents and provide a starting point for further research and investigation. This research will be crucial for a better understanding of the role of leaders in virtual teams which consist of people from different generations, and for identifying generational differences.

Summary

The dynamics of changes taking place in the labour market mean that research on generational diversity and in terms of leadership in virtual teams will remain an important topic worth further consideration in the future, regardless of sectors or industries. Each generation grows up and develops in different conditions, which include socio-economic, political, and technological factors. Therefore, we can observe diversity in the approach to innovation, attitudes, and skills.

As the presented research results show, there is a need for a more comprehensive approach to managing virtual teams that embraces generational diversity and aligns leadership skills with the expectations of employees from different generations. Leaders should focus on the individual development needs of employees and treat them with an individualized approach. The research presents the gap between expectations and the actual level of virtual team leader competencies. The conclusions of this study can be a guide for further analysis, although they are based on the employee's perspective, not the leader's one. In planning the development strategy of the organization, such a view and knowledge can be a valuable source of information for managing and shaping the work environment.

Future research could explore the perspective of virtual team leaders themselves to gain a more balanced understanding of leadership competencies and expectations. Future studies could investigate how leaders perceive their own competencies, the challenges they face

in managing generationally diverse teams, and the strategies they employ to enhance engagement and innovation. Additionally, further research could examine the effectiveness of different leadership styles that might be tailored to virtual team environments.

References

1. Adair, J. (2003). *Not Bosses but Leaders: How to Lead the Way to Success*. London: Kogan Page, (3rd ed.).
2. Apanowicz, J. (2005). *Metodologiczne uwarunkowania pracy naukowej. Prace doktorskie, prace habilitacyjne*. Warszawa: Difin.
3. Armstrong, M. (2000). *Zarządzanie zasobami ludzkimi*. Kraków: Oficyna Ekonomiczna.
4. Batrlık, S.N., Gencer, Y.G., Akkucuk, U. (2022). Global Virtual Team Leadership Scale (GVTLS) Development in Multinational Companies. *Sustainability*, 14, p. 1038.
5. Bencsik, A., Horváth-Csikós, G., Juhász, T. (2016). Y and Z Generations at workplaces. *Journal of Competitiveness*, 8(3), pp. 90–106.
6. Conger, J. (1990). The dark side of leadership. *Organizational Dynamics*, 19(2), pp. 44–55.
7. *Diagnoza sytuacji osób defaworyzowanych na rynku pracy* (2010). Pentor Research International Wrocław dla: Dolnośląskiego Wojewódzkiego Urzędu Pracy w Wałbrzychu w ramach projektu pt. „Bariery i szanse wsparcia i obsługi tzw. trudnego klienta instytucji rynku pracy na terenie Dolnego Śląska”, Wałbrzych 2010, 2024, <https://silvertteam.dobrekadry.pl/dokumenty/diagnoza-sytuacji.pdf> (accessed: 18.03.2024).
8. Dźwigoł, H. (2015). Warsztat badawczy w naukach o zarządzaniu. *Zeszyty Naukowe Politechniki Śląskiej, Seria: Organizacja i Zarządzanie*, 83(1941), pp. 133–142.
9. Gallup (2017). Gallup Report: State of the American Workplace. Gallup Inc., <https://www.gallup.com/workplace/238085/state-american-workplace-report-2017.aspx> (accessed: 25.03.2024)
10. Gębczyńska, M., Kwiotkowska, A. (2020). Koncepcje przywództwa w erze Przemysłu 4.0. In: A. Michna, J. Kaźmierczak (Eds.), *Wyzwania i szanse dla mikro, małych i średnich przedsiębiorstw* (pp. 49–63). Warszawa: CeDeWu.
11. Gilson, L., Maynard, M., Young, N., Vartiainen, M., Hakonen, M. (2015). Virtual Teams Research: 10 Years, 10 Themes, and 10 Opportunities. *Journal of Management*, 41(5), pp. 1313–1337.
12. Gzowska, W., Gęgotek, S. (2017). Zarządzanie współpracą międzygeneracyjną pracowników jako determinant sukcesu współczesnych organizacji. *Humanum. Międzynarodowe Studia Społeczno-Humanistyczne*, 3(26), pp. 125–135.
13. Hossein, G. (2012). A literature review on challenges of virtual team's leadership. *Journal of Sociological Research*, 3(2), pp.134–145.
14. Hunsaker, P.L., Hunsaker, J.S. (2008). Virtual Teams A Leader's Guide. *Team Performance Management An International Journal*, 14, pp. 86–101.
15. Hysa, B. (2016). Zarządzanie różnorodnością pokoleniową. *Zeszyty Naukowe Politechniki Śląskiej, Organizacja i Zarządzanie*, 151, pp. 385–398.

16. Jeszka, A.M. (2013). Problemy badawcze i hipotezy w naukach o zarządzaniu. *Organizacja i Kierowanie*, 5(158), pp. 31–39.
17. Klub Dyrektora HR we współpracy z Ośrodkiem Dialogu i Analiz ThinkTank (2016). *Różne pokolenia – jedna Organizacja*, <https://hrstowarzyszenie.pl/wp-content/uploads/2018/09/Raport-Zarzadzanie-Wiekiem-Klub-Dyrektora-HR.pdf> (accessed: 15.02.2024).
18. Kuc, B.R., (2004). *Od zarządzania do przywództwa. Dylematy władzy organizacyjnej*, Warszawa: Wyd. Menedżerskie PTM.
19. Kupczyk, T., Stor, M. (2017). *Zarządzanie kompetencjami. Teoria, badania i praktyka biznesowa*. Wrocław: Wyższa Szkoła Handlowa we Wrocławiu.
20. Lisiński, M. (2017). Problemy badawcze i metody ich rozwiązywania w naukach o zarządzaniu. *Ekonomika i Organizacja Przedsiębiorstwa*, 8(811), pp. 3–20.
21. Mrówka, R. (Ed.) (2021). *Przywództwo w organizacjach. Analiza najlepszych praktyk*. Wolters Kluwer Polska.
22. Nowak, S. (2007). *Metodologia badań społecznych*. Warszawa: Wydawnictwo Naukowe PWN,.
23. Nowosielski, S. (2016). Cele w badaniach naukowych z zakresu zarządzania. Aspekty metodologiczne. *Prace Naukowe Uniwersytetu Ekonomicznego we Wrocławiu*, 421, pp. 468–482.
24. Smolbik-Jęczmień, A. (2017). *Kształtowanie własnej kariery zawodowej w kontekście wielopokoleniowości*. Wrocław: Wydawnictwo Uniwersytetu Ekonomicznego we Wrocławiu.
25. Stachowicz-Stanusch, A. (2011). Destrukcyjne strony charyzmatycznego przywództwa. *Zarządzanie Zasobami Ludzkimi*, 6, pp. 113–126.
26. Weisban, S. (2008). *Leadership at a distance: research in technologically supported work*. New York: Lawrence Erlbaun Associates Inc.
27. Weroniczak, L. (2010). Człowiek w obliczu szybko dokonujących się zmian. In: J. Majerowska (Ed.), *Bo życie to nieustanny rozwój. Poradnik* (pp. 39–46). Poznań: Edustacja.pl Sp. z o.o,
28. Wiktorowicz J., Warwas, I. (2017). Pokolenia na rynku pracy. In: J. Wiktorowicz, I. Warwas, M. Kuba, E. Staszewska, A. Woszczyk, A. Stankiewicz, J. Kliombka-Jarzyna (Eds.), *Pokolenia - co się zmienia? Kompendium zarządzania multigeneracyjnego* (pp. 19–33). Warszawa: WoltersKluwer.
29. Winch, S. (2014). Wybrane determinanty przywództwa w przedsiębiorstwie - wyniki badań pilotażowych. *Marketing i Rynek*, 5 (CD), pp. 1258–1264.
30. Winch, S. (2019). System wartości kandydatów na studia w uczelni ekonomicznej – na przykładzie Szkoły Głównej Handlowej w Warszawie. *e-mentor*, 1, pp. 18–24.
31. Wyród-Wróbel, J., Biesok, G. (2018). Przywódca zdaniem swej organizacji - podsumowanie wyników badań. *Marketing i Rynek*, 9, pp. 1024–1035.
32. Żarczyńska-Dobiesz, A., Chomątowska, B. (2014). Pokolenie „Z” na rynku pracy – wyzwania dla zarządzania zasobami ludzkimi. *Prace Naukowe Uniwersytetu Ekonomicznego we Wrocławiu*, 350, pp. 405–415.
33. Żarczyńska-Dobiesz, A., Chomątowska, B. (2016). Zarządzanie pracownikami z pokolenia paradoksów. *Nauki o Zarządzaniu*, Uniwersytet Ekonomiczny we Wrocławiu, 2(27), pp. 196–206.