

EMPLOYEE MOTIVATION FACTORS ACROSS GENERATIONAL COHORTS X, Y AND Z IN THE IT INDUSTRY IN POLAND

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Purpose: This paper explores the drivers for employee motivation in the IT sector in Poland. Specifically, it focuses on differences in what motivates employees belonging to generations X, Y and Z.

Design/methodology/approach: This study, rooted in existing international literature around the topic of employee motivation, draws on 16 semi-structured interviews performed in May and June 2023 with senior managers and human resources representatives working in IT sector in Poland. The data was analysed using MAXQDA software.

Findings: The findings of the qualitative section of this study are conformant with previous research from other sectors that the major motivation factors are finance and growth possibilities, when it comes to IT sector in Poland. However, it stresses that for the finance induced motivation boost to last it needs to be combined with growth. Also, generational differences between motivation factors were identified. The findings indicate to managers that motivation factors such as finance should not be treated in separation, but they should be accompanied by an adequate increase in responsibility and that for various generations different forms of employment could facilitate the motivating process.

Research limitations/implications: The conclusions were formulated taking into account the sample's limitations. The qualitative study was limited to the group of 16 respondents who despite having experience from multiple companies, at the time of the interviews worked for the same company: Atos Group. Therefore, this research can encourage further reflection on employee motivation in the IT sector.

Originality/value: The systematic literature review indicated that the subject of employee motivation factors had not been undertaken in the context of Polish IT sector specificity.

Keywords: employee motivation, IT industry, generational differences, generation X, generation Y, generation Z.

Category of the paper: Literature review, research paper.

1. Introduction

The IT (Information Technology) labour market in Poland has experienced rapid growth over the last decades. The shortage in manpower in this sector in Poland reached 30,000 to 50,000 employees, with the growth rate of 3-5% yearly (Wawer, Muryjas, 2018, p. 4229). In these highly competitive circumstances, IT companies face the challenge of attracting, retaining talent, and keeping high motivation level in a multigenerational workforce (Mahmoud, Fuxman et al., 2021, pp. 193-194).

The question of motivation factors in the IT sector has been examined by multiple researchers in the cultural context of India. Jamal et al. (2022) pointed to the importance of intrinsic motivation factors which come from staying connected with colleagues and the experience of togetherness in accomplishing tasks, in the context of COVID-19 pandemic. This statement was supported by the results presented by Sarfraz et al. (2021) who found that isolation in the workplace had a negative effect on employee motivation also in the context of the pandemic. Sinha et al. (2014) indicated that the higher the role efficacy, the higher the motivation. Warriar & Prasad (2018) on the other hand demonstrated that employees in India are more motivated by hygiene factors than by motivators.

Equally, the generational differences in motivation factors have received substantial coverage in scholarly literature. Heyns & Kerr (2018) found no significant differences between generations in terms of motivation. Also, Machova et al. (2022a) found that financial incentives are the most important motivation factor for all generations: X, Y and Z. They found no significant differences in terms of motivation factors between generations X, Y and Z. However, Lee et al. (2022) empirically proved that different factors motivate different generational cohorts. They found that for generation X, work-life balance has significant impact on intrinsic motivation, for generation Y, transformational leadership and autonomy have significant positive impact on intrinsic motivation, and for generation Z, transformational leadership, corporate social responsibility and autonomy significantly positively impact the intrinsic motivation. This backed up by Mahmoud, Reisel et al. (2021a) who found that job insecurity affects the intrinsic motivation in generations Y and Z significantly less than it does generation X. Finally, Pechová & Stejskalová, (2019) demonstrated that generation X are motivated by remote work when possible, and performance review based on achievement of goals and accomplishment of tasks, generation Y are motivated by positive feedback from superiors and high-end equipment and generation Z are motivated by work in modern environment and business travel.

In this context, a systematic literature review identified no paper combining these two aspects with reference to Polish employees. Therefore, this article addresses the question of drivers for employee motivation in the IT sector in Poland, with specific focus on differences in what motivates employees belonging to generations X, Y and Z.

2. Literature review

A systematic literature review performed in January 2023 searching in on-line data bases the Web of Science and EBSCO using topic search criteria employee motivation and generation X, Y, Z as well as employee motivation and IT industry pointed to 224 papers. 19 of them were excluded as duplicates. After the review of abstracts and conclusions, 146 texts were excluded for the following reasons: generational cohorts were studied in a different context than that of a mediating variable for causes of employee motivation, employee motivation was examined as an independent variable causing another dependent variable. The remaining 59 texts were reviewed in detail.

2.1. Acclaimed motivation theories

Motivation, being a highly complex concept, is difficult to encapsulate in one definition; therefore, a distinction needs to be made between motivation itself and work (or employee) motivation (Koszela, 2020, p. 32). The former is referred to by Kreitner (1995) as a process in psychology providing actions with a goal and a disposition to act with the purpose of meeting unsatisfied needs. Whereas the latter is referred to by Buford et al. (1995) as the will to execute a task with the objective obtaining satisfaction or pleasure coming from the task per se and not an external gratification, an employee's will and ability to contribute to the company's success with continuous effort (Shuck, Wollard, 2009) or the source of an employee's effort aimed at work activities or the will to execute these activities (Shields, 2007). Some researchers also introduce the concept of employee engagement referred to as psychological and behavioural factors that causes the workers' contribution to the company (Trends in Global Employee Engagement, 2013) or a stimulated connection that a worker has to their job, company, supervisor, or colleagues which causes them to make additional effort in their work.

The research of employee motivation factors cannot however be performed omitting renowned motivation theories. In the course of the literature review, three motivation models have been noted as frequently referred to: Abraham Maslow's hierarchy of needs (e.g. Anjali, Anand, 2015; Bhatt et al., 2022; Dwivedula, Singh, 2020; Hoole, Bonnema, 2015; Koszela, 2020; Mahmoud et al., 2020; Mahmoud, Fuxman et al., 2021; Mishra, Mishra, 2017; Saeed et al., 2018; Shirish et al., 2016; Wamala, Genza, 2022; Wong et al., 2017), Frederick Herzberg's two-factor motivation theory (e.g. Bhatt et al., 2022; Duda, 2016; Dwivedula, 2020; Dwivedula, Singh, 2020; Fratričová, Kirchmayer, 2018; Kultalahti, Viitala, 2014; Lim, 2013; Mahmoud et al., 2020; Mahmoud, Fuxman et al., 2021; Mishra, Mishra, 2017; Pillarisetty et al., 2018; Saeed et al., 2018; Warriar, Prasad, 2018; Wong et al., 2017; Yıldırım, Korkmaz, 2017) and the self-determination theory (SDT) (e.g. Chang et al., 2021; Deal et al., 2013; Dwivedula, 2020; Dwivedula, Singh, 2020; Heyns, Kerr, 2018; Jamal et al., 2022; Koszela, 2020; Kultalahti, Viitala, 2014; Mahmoud et al., 2020; Mahmoud, Fuxman et al., 2021;

Mahmoud, Reisel et al., 2021a; Mishra, Mishra, 2017; Ogunmokun et al., 2022; Saeed et al., 2018).

Firstly, the theory of hierarchy of needs crafted by Abraham Maslow, which states that humans are motivated by the drive to attain or preserve diverse prerequisites for the satisfaction of their five rudimentary needs. These needs are “physiological, safety, love, esteem, and self-actualization”; they are hierarchical and they are in a dependency relationship with each other whereby the lesser-level needs must be met before the higher-level needs are considered (Maslow, 1943, p. 394).

Based on Abraham Maslow’s theory, Frederick Herzberg coined the two-factor motivation theory, also known as the motivation-hygiene theory (Jones, 2011, p. 7). In this theory, motivation factors were divided in two categories: intrinsic, otherwise classified as motivation factors and extrinsic, otherwise classified as hygiene factors; the former being driven by the need to achieve, being given responsibility, and being recognized, the latter by evasion of unpleasant circumstances, like the inadequate conditions in which one works or insufficient remuneration for one’s work (Alshmemri et al., 2017, p. 12).

Finally, the self-determination theory (SDT), developed by Edward L. Deci and Richard M. Ryan, who hypothesised that effective motivation comes from self-determination and is supported by three factors: competence (or efficacy), autonomy and relatedness. As presented in Figure 1, SDT also expands the motivation dichotomy introducing the factor of the source of regulation and creating a continuum of whereby amotivation is driven by non-regulation characterised as a lack of drive to take action, intrinsic motivation is driven by intrinsic regulation, and extrinsic motivation is driven by four types of regulation. These types are: external regulation, where the drive comes completely from the exterior, introjected regulation, where an individual accepts the need to act, but performs the activity not to feel guilty, anxious or to satisfy their ego, identified regulation, where an individual consciously accepts the goal which their action is supposed to attain, and integrated regulation, where even though the regulation comes from the exterior, the individual fully assimilates it as being aligned with their own needs and values (Ryan, Deci, 2000, pp. 69-73).

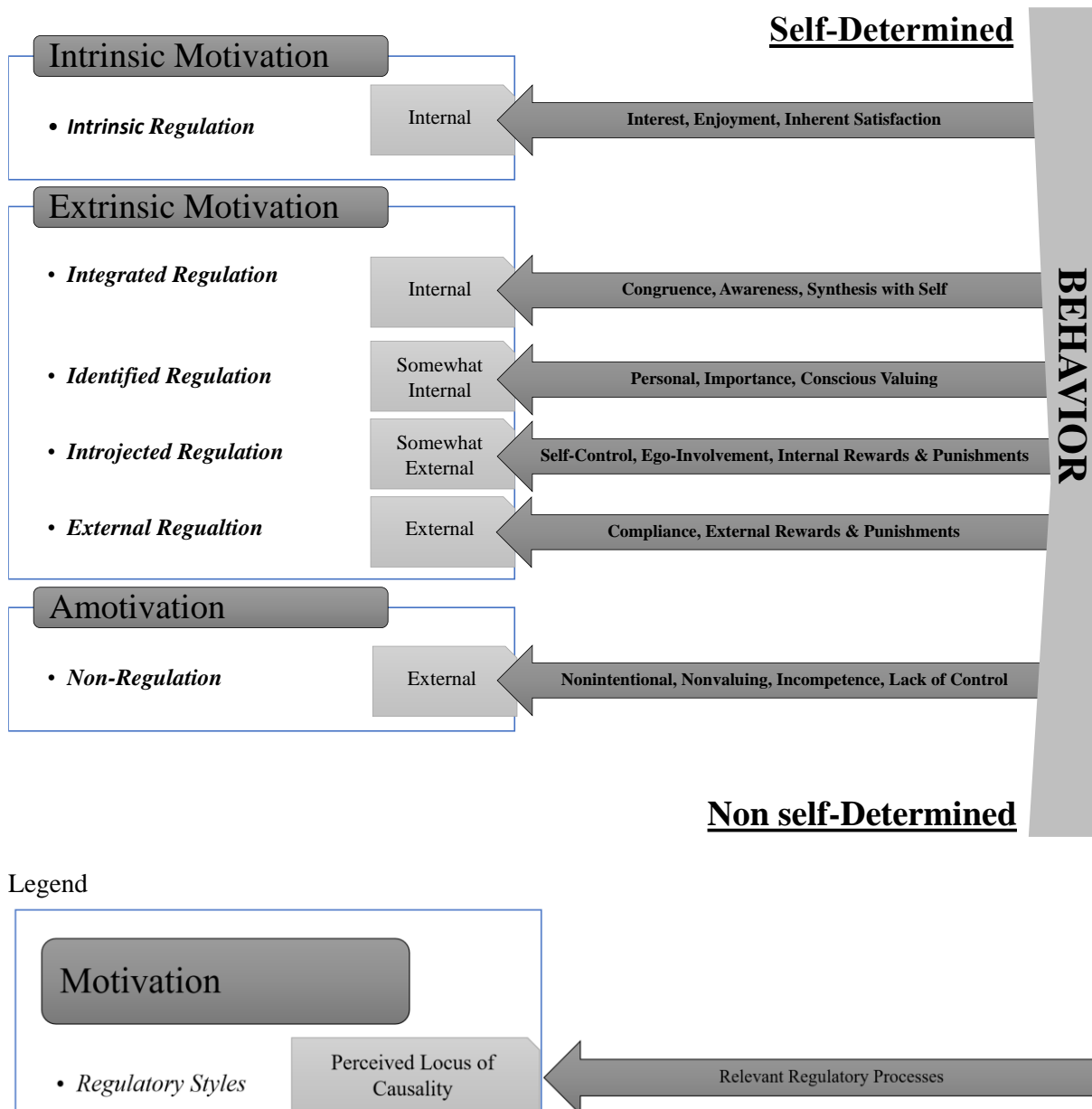


Figure 1. The Self-Determination continuum showing types of motivation with their regulatory styles, loci of causality, and corresponding processes.

Source: own elaboration adapted from Ryan, Deci (2000).

2.2. Employee motivation factors in the context of IT industry

The literature review of motivation factors in the IT industry has shown that the research for 6 out of 9 studies was performed in India (Anjali, Anand, 2015; Dash, Muthyala, 2016; Jamal et al., 2022; Pillarisetty et al., 2018; Sinha et al., 2014; Warriar, Prasad, 2018). Being rooted in the Herzberg's theory, the research of (Warriar, Prasad, 2018, p. 480) concluded that Indian IT sector employees are in major part motivated by hygiene factors rather than motivator factors. These findings were backed up by the study of (Pillarisetty et al., 2018, p. 128) who concluded that knowledge workers in the Indian IT sector are chiefly motivated by extrinsic factors. Furthermore, the research of (Dash, Muthyala, 2016, p. 25) proved that the motivational

effect of the extrinsic factor of supervisor's feedback and discussion about career growth is significantly higher in the less experienced Indian IT employees than in the more seasoned ones. However, in the same region, although not strictly founded in SDT theory, the role efficacy was also proven to have significant positive impact on employee motivation (Sinha et al., 2014, p. 15).

However, the COVID-19 pandemic provided a new context for employees' motivation factors in the IT industry on the Indian subcontinent. Taking root in the SDT theory, the research of (Jamal et al., 2022, p. 17) had concluded that the level of intrinsic motivation grows if employees have a sense of togetherness (or relatedness) in their work. Further backed up by the findings of (Sarfranz et al., 2021, p. 84) demonstrating that feeling isolated in the workplace had negative effect on the employee's motivation.

Research of employee motivation factors in IT industry in multiple European countries performed in 2019 conducted among Human Resources managers, concluded that motivation factors are in their perception: flexible working time, extra holiday entitlement, evaluation, good working atmosphere, relations between employees, self-fulfilment, professional development (Malichova, Miciak, 2019, p. 113). Further confirmed by the findings of Anguelov et al. (2020, p. 2565), who performed their research in Bulgaria, that employee motivation comes from factors like remuneration conditions at work, company atmosphere and communication, personal development possibilities, work-life balance, and job security. Research conducted in Poland by Koszela (2020, pp. 40-41) found that Voluntary Staff Turnover has negative impact on employee motivation and job performance of employees.

2.3. Generational differences in motivation factors

Generational cohorts are different from one another in multiple aspects such as the way they behave, think, what attitudes they have, and what technological aptitude they demonstrate (Machova et al., 2022a, p. 71). The literature review demonstrated that no uniform definition of date ranges exists on the international scale to mark the birth dates of various generations. As demonstrated in Figure 2, various researchers referenced different date ranges for generational cohorts. For the purpose of this study, the model used by Pechová & Stejskalová (2019, p. 1188) is adopted whereby gen. X refers to people born between 1965 and 1980, gen. Y refers to people born between 1981 and 1995, gen. Z refers to people born between 1996 and 2010. It proposes clear demarcation lines between generations X, Y and Z and being geographically close to the studied population.

Article referencing	Geography	Published	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
			Baby Boomers										Generation X										Generation Y										Generation Z																																										
(Wamala & Genza, 2022)	Uganda	2022	Baby Boomers										Generation X										Generation Y										Generation Z																																										
(Dobrowolski et al., 2022)	Poland	2022	Baby Boomers										Generation X										Generation Y										Generation Z																																										
(Machova et al., 2022)	Slovakia	2022	Baby Boomers										Generation X										Generation Y										Generation Z										Generation Alpha																																
(Bhatt et al., 2022)	India	2022	Baby Boomers										Generation X										Generation Y										Generation Z																																										
(Garai-fodor et al., 2021)	Multiple	2021	Baby Boomers										Generation X										Generation Y										Generation Z																																										
(Goh & Baum, 2021)	Australia	2021	Baby Boomers										Generation X										Generation Y										Generation Z																																										
(Mahmoud, Fuxman, et al., 2021)	Canada	2021	Baby Boomers										Generation X										Generation Y										Generation Z																																										
(Chang et al., 2021)	Unspecified	2021	Baby Boomers										Generation X										Generation Y										Generation Z																																										
(Kaul et al., 2020)	India	2020	Baby Boomers										Generation X										Generation Y										Generation Z																																										
(Dwivedula, 2020)	Multiple	2020	Baby Boomers										Generation X										Generation Y										Generation Z																																										
(Mahmoud et al., 2020)	Canada	2020	Baby Boomers										Generation X										Generation Y										Generation Z																																										
(Dwivedula & Singh, 2020)	Multiple	2020	Baby Boomers										Generation X										Generation Y										Generation Z																																										
(Bussin et al., 2019)	South Africa	2019	Baby Boomers										Generation X										Generation Y										Generation Z																																										
(Graczyk-Kucharska, 2019)	Poland	2019	Baby Boomers										Generation X										Generation Y										Generation Z																																										
(Pechová & Stejskalová, 2019)	Czech Republic	2019	Baby Boomers										Generation X										Generation Y										Generation Z																																										
(Heyns & Kerr, 2018)	South Africa	2018	Baby Boomers										Generation X										Generation Y										Generation Z																																										
(Kirchmayer & Fratričová, 2018)	Slovakia	2018	Baby Boomers										Generation X										Generation Y										Generation Z																																										
(Fratričová & Kirchmayer, 2018)	Slovakia	2018	Baby Boomers										Generation X										Generation Y										Generation Z																																										
(Gertsson et al., 2018)	Sweden	2018	Baby Boomers										Generation X										Generation Y										Generation Z																																										
(Saeed et al., 2018)	Malaysia	2018	Baby Boomers										Generation X										Generation Y										Generation Z																																										
(Munir et al., 2017)	Malaysia	2017	Baby Boomers										Generation X										Generation Y										Generation Z																																										
(Kampf et al., 2017)	Europe	2017	Baby Boomers										Generation X										Generation Y										Generation Z																																										
(Othman et al., 2017)	Malaysia	2017	Baby Boomers										Generation X										Generation Y										Generation Z																																										
(Yıldırım & Korkmaz, 2017)	Turkey	2017	Baby Boomers										Generation X										Generation Y										Generation Z																																										
(Koronios et al., 2017)	Greece	2017	Baby Boomers										Generation X										Generation Y										Generation Z																																										
(Shirish et al., 2016)	France	2016	Baby Boomers										Generation X										Generation Y										Generation Z																																										
(Grobelna & Skrzyszewska, 2016)	Poland	2016	Baby Boomers										Generation X										Generation Y										Generation Z																																										
(Školudová & Horáková, 2016)	Czech Republic	2016	Baby Boomers										Generation X										Generation Y										Generation Z																																										
(Dimitriou et al., 2015)	Greece	2015	Baby Boomers										Generation X										Generation Y										Generation Z																																										
(Hoole & Bonnema, 2015)	South Africa	2015	Baby Boomers										Generation X										Generation Y										Generation Z																																										
(Kultalahti & Vítala, 2015)	Unknown	2015	Baby Boomers										Generation X										Generation Y										Generation Z																																										
(Kopertyńska & Kmiotek, 2015)	Poland	2015	Baby Boomers										Generation X										Generation Y										Generation Z																																										
(Hradský & Sadílek, 2020)	India	2015	Baby Boomers										Generation X										Generation Y										Generation Z																																										
(Kultalahti & Vítala, 2014)	Unknown	2014	Baby Boomers										Generation X										Generation Y										Generation Z																																										
(Lewicka, 2013)	Poland	2013	Baby Boomers										Generation X										Generation Y										Generation Z																																										
(Lim, 2013)	UAE	2013	Baby Boomers										Generation X										Generation Y										Generation Z																																										
(Deal et al., 2013)	USA	2013	Baby Boomers										Generation X										Generation Y										Generation Z																																										

Figure 2. Demarcation of generational cohorts referenced in articles reviewed during literature review.

Source: own elaboration.

In the pool of 46 papers examining differences in factors motivating specific generational cohorts, 12 researchers focused on evaluation of differences across multiple generations. 7 found that varied factors motivate different generations, whereas 5 found no significant differences in this respect.

In a study evaluating differences in motivation factors for generations X, Y and Z, from the SDT perspective Mahmoud, Fuxman, et al. (2021, p. 204) found that generational cohorts differ significantly in terms of type of regulation having impact on their motivation. In another study, Mahmoud, Reisel, et al. (2021b, p. 273) proved that work insecurity will have a considerably stronger effect on the intrinsic motivation of generation X than on that of generations Y and Z. In a study examining these same generations, Pechová & Stejskalová (2019, p. 1195) found that factors like remote work, goal-achievement-based performance review are motivating factors for generation X, positive feedback from superiors and high-end equipment motivate generation Y, whereas modern work environment and business travel motivate generation Z. In similar terms, Lee et al. (2022, p. 13) lists factors having impact on the intrinsic motivation of generation X as work-life balance, of generation Y as autonomy and transformational leadership (altering employee's values and priorities), and of generation Z as transformational leadership together with autonomy and corporate social responsibility. Significant differences in the level of intrinsic and extrinsic motivation were also remarked by Dokadia et al. (2015, p. 91) when evaluating its differences in silent generation, baby boomers, gen. X and gen. Y; intrinsic motivation level was decreasing together with the age of the cohort, the extrinsic however was significantly lower only in baby boomers.

In research of motivational differences between the generational cohorts of baby boomers, gen. X and Y, Hoole & Bonnema (2015, pp. 9-10) found that across generations there exists a positive correlation between meaningful work and work engagement. But also, that in all examined cases, older generations perform better than younger generations. Examining the same generational cohorts, Koronios et al. (2017, p. 10) found that factors like promotion possibilities, praise, building their own skills, performance evaluation, training, stability of employment and working time flexibility are evaluated significantly differently, in terms of impact on motivation, by these generations.

Research papers considering generations Y and Z in separation, listed in Table 1, enumerate multiple motivation factors proven to have impact on these cohorts. Twelve of them appearing repeatedly in research papers are: work-life balance (WLB), financial incentives, possibilities of growth and development, autonomy, meaningfulness of work performed, stability of employment, supportive leadership, recognition, affiliation, possibility of remote work, working conditions and taking pleasure in tasks executed. A matrix of these factors together with research papers treating them and the generational cohort they refer to have been presented in Table 1 and further analysed in Figure 3 for generation Y and Figure 4 for generation Z. No papers treating employee motivation factors for generation X in separation have been identified in the course of the literature review.

Table 1.*Occurrence of motivation factors in studies of generations Y and Z*

Generation	Reference	WLB	Finance	Growth	Autonomy	Meaningfulness	Stability	Leadership	Recognition	Affiliation	Remote work	Conditions	Pleasure
Y	(Wamala, Genza, 2022)	N		N	N	N	N	N			N	N	N
Y	(Ogunmokun et al., 2022)	N	N	N		N	N		N	N	N	N	N
Y	(Chang et al., 2021)			N		N	N	N			N	N	
Y	(Bussin et al., 2019)	N			N	N	N	N	N	N	N	N	N
Y	(Kalargyrou et al., 2019)	N		N	N	N	N	N		N	N	N	N
Y	(Munir et al., 2017)	N	N	N	N	N	N	N	N		N	N	N
Y	(Wong et al., 2017)	N		N	N	N	N	N	N		N	N	N
Y	(Yıldırım, Korkmaz, 2017)	N	N	N	N	N	N		N	N	N	N	N
Y	(Duda, 2016)	N		N	N	N	N	N	N	N	N	N	N
Y	(Grobelna et al., 2016)	N		N	N	N		N	N	N	N	N	N
Y	(Školudová et al., 2016)	N	N		N	N	N	N				N	N
Y	(Lewicka, 2013)	N	N	N	N	N	N	N		N	N	N	N
Y	(Lim, 2013)	N			N	N	N		N	N	N	N	N
Y	(Kaul et al., 2020)		N			N				N	N	N	N
Y	(Dimitriou et al., 2015)	N	N	N		N	N	N	N	N	N		N
Y	(Kultalahti, Viitala, 2015)		N		N	N	N		N	N	N	N	N
Y	(Mishra, Mishra, 2017)		N				N		N		N	N	N
Y	(Saeed et al., 2018)	N		N	N	N		N	N	N	N		N
Y	(Hradský, Sadílek, 2020)		N			N	N	N	N	N	N	N	N
Y	(Kultalahti, Viitala, 2014)		N		N	N	N		N		N	N	N
Y	(Bhatt et al., 2022)	N	N	N	N	N	N		N	N	N		N
Y	(Mahmoud et al., 2020)	N	N	N	N	N	N	N	N		N	N	N
Z	(Grenčíková et al., 2022)	N		N	N	N	N	N	N	N	N	N	N
Z	(Dobrowolski et al., 2022)	N	N	N	N	N	N		N	N	N	N	N
Z	(Garai-fodor et al., 2021)	N	N		N	N	N	N	N	N	N	N	N
Z	(Goh, Baum, 2021)	N	N	N	N		N	N	N	N	N	N	N
Z	(Graczyk-Kucharska, 2019)			N	N	N	N	N	N			N	N
Z	(Kirchmayer et al., 2018)			N	N		N	N	N	N	N	N	
Z	(Fratřičová et al., 2018)	N	N	N	N	N	N	N	N		N	N	
Z	(Dwivedula, 2020)	N	N		N	N	N		N	N	N	N	N
Z	(Dwivedula, Singh, 2020)	N			N	N	N	N	N		N	N	N

WLB – Work-life balance.

Source: own elaboration.

As presented in Figure 3, financial motivation factor occurs most frequently in research papers concerning generation Y. It is followed closely by affiliation, in the sense of being a member of a team, as well as possibilities for growth and upskilling. Supportive and friendly leadership assuring recognition of work well done, autonomy in performing work activities and keeping work-life balance are also frequently occurring motivation factors for this cohort.

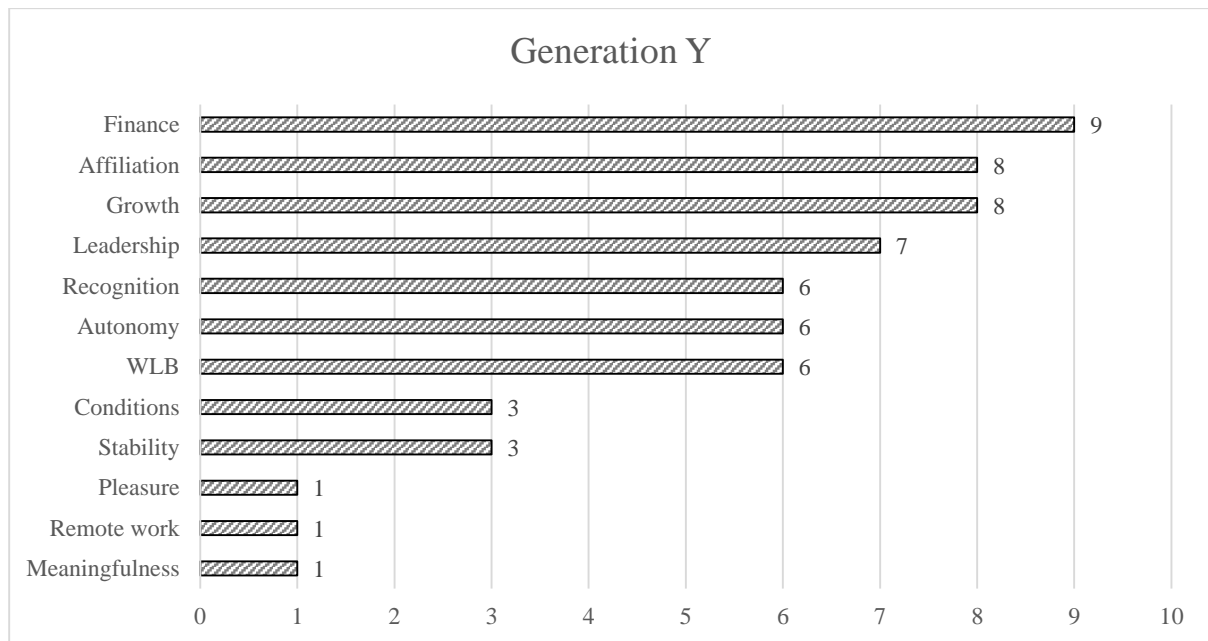


Figure 3. Occurrence of motivation factors in studies of generation Y.

Source: own elaboration.

When it comes to generation Z, as presented in Figure 4, financial incentive remains the most frequently occurring motivation factor. This fact is backed up by the findings of Machova et al. (2022a, p. 80) whose research confirmed it as the major factor across generations X, Y and Z, having, however, discovered no significant differences in motivation factors among these cohorts. Next, as recurring factors, come affiliation and growth possibilities. Not to be overlooked, the factor of taking pleasure in the work activities occurs twice, whereas the factors of working conditions, recognition of the work well done, and autonomy are not mentioned in the research concerning this cohort.

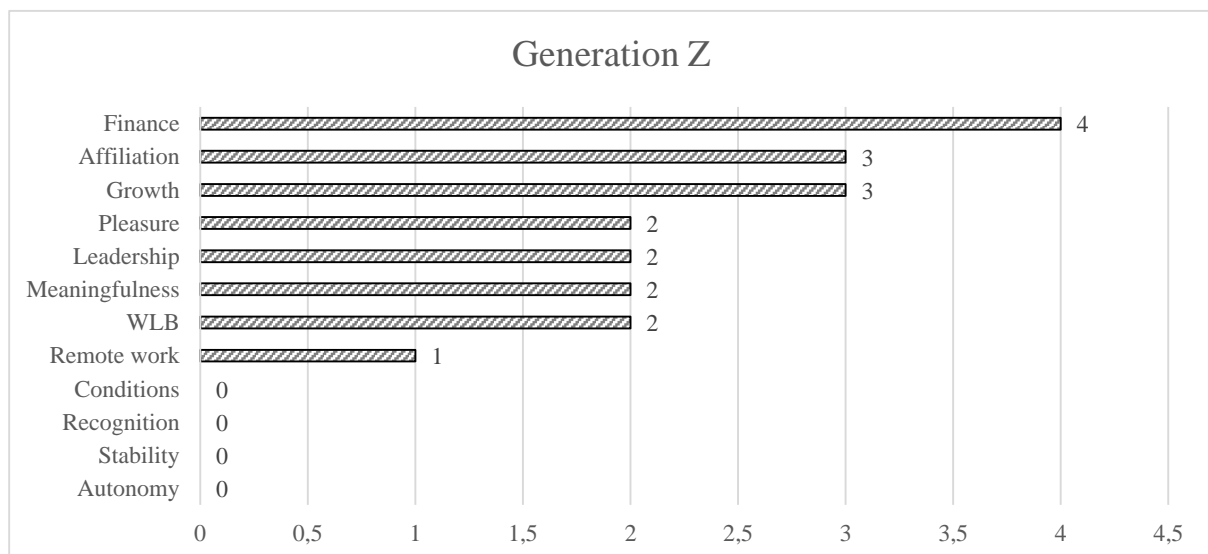


Figure 4. Occurrence of motivation factors in studies of generation Z.

Source: own elaboration.

Lastly, studies which did not discover significant differences among generational cohorts. In a study performed in transport companies, Kampf et al. (2017, p. 11) found that several factors motivate employees of different age groups having however found no significant difference linked to the generation to which employees belonged. Having surveyed managers from 16 Polish companies, Kopertyńska & Kmiołek (2015, p. 199) found that the level of engagement of generation Y does not differ significantly from the level of engagement of earlier cohorts. In an SDT based study performed on baby boomers, gen. X and gen. Y, in one water supply company in South Africa, Heyns & Kerr (2018, pp. 7-8) found no significant differences in motivation factors across these groups. Similarly, taking the SDT motivation factors under examination, Deal et al. (2013, pp. 9-10) found no significant differences in motivation factors across the examined cohorts of baby boomers and generation X. Finally, the study of Machova et al. (2022a, p. 80) performed in retail stores has identified finance as the most significant motivation factor for the generations X, Y and Z with no differences among these cohorts.

The systematic literature review leads to formulating two questions. Are employees of Polish IT companies motivated by the same factors? Are there generational differences in factors impacting the motivation of generations, X, Y and Z working in IT sector in Poland.

3. Methodology

To answer the questions, the interview method was selected following in the footsteps of broadly cited researchers in the domain of employee motivation (Kreye, 2016, p. 3; Waseem et al., 2020, p. 4). The technique applied was a semi-structured interview performed by means of MS Teams application, guided by an interview sheet. The interviews were conducted in English in May and June 2023. They were recorded and transcribed by MS Stream later to be encoded in MAXQDA software for analysis.

To indicate appropriate respondents, senior HR managers from Atos Poland Global Services, Polish branch of a multinational IT company, were engaged as informants (Glinka, Czakon, 2021, p. 80). Similar to another study focused on job satisfaction factors (Izvercian et al., 2016, p. 88), the respondents were selected from two groups of skilled professionals: 8 HR representatives and 8 senior managers.

As a first step, the respondents received an email inviting to participate in the research, explaining in brief the purpose of research and assurance of anonymity. Next, they received invitations to their company mailboxes. After having established dates convenient for all respondents, the interviews were conducted by two researchers to enhance objectivity by applying “investigator triangulation” (Stańczyk, 2015, p. 248). The interview scenario included 3 introductory sections explaining to the interviewees the research purpose, why they were selected as respondents, technical details on anonymity, recording access, possibility to

withdraw. After that, it included 3 sections with questions listed in Table 2. Lastly, it included closing statements thanking them for the participation.

Table 2.
Interview questions

Nr	General topic	Detailed topic
1.0	Opening question	<ul style="list-style-type: none"> • How do you understand employee motivation in general? • What in your view are the sources of employee motivation in general? • Do you have your own classification of types/sources of motivation in general?
2.0	Factors motivating employees in the company	<ul style="list-style-type: none"> • What in your view are the factors motivating employees in the IT industry in Poland? • Can you think of any actions that your company can undertake or undertakes which have positive impact on employee motivation? • Have you ever observed a situation in which in your view the motivation level of an employee has increased? If so, can you describe: <ul style="list-style-type: none"> ○ The situation? ○ Factors which influenced it?
3.0	Generational differences in sources/factors of motivation	<ul style="list-style-type: none"> • In your practice, have you observed any differences or regularities in factors motivating employees depending on their age, belonging to a specific generation? • What in your view are the underlying causes of these differences? <ul style="list-style-type: none"> ○ Age itself is only a classification, but what can be the underlying cause of these differences?

Source: own elaboration.

The interview recordings were then auto transcribed by MS Stream. The transcripts were anonymized by replacing the respondents' names with Greek letters and imported to MAXQDA 2022, qualitative analysis software, where they were reviewed by two researchers and coded based on the code tree developed during the literature review. After the interviews, the interviewees received a short MS Forms questionnaire in which they indicated the number of years of experience at Atos and number of companies for which they had worked prior to joining Atos. The results of this questionnaire have been presented in Table 3.

Table 3.
Respondents' experience

Interviewee position	Interviewee	Years of experience at Atos	Number of former employers
Human Resources	Alpha	6	3
	Beta	10	5
	Gamma	22	2
	Delta	5	1
	Epsilon	2	0
	Zeta	4.5	5
	Eta	1	1
	Theta	9	2
Manager	Iota	5	1
	Kappa	8	0
	Lambda	10	3
	Nu	2	2
	Tau	10	0
	Pi	10	8
	Sigma	7	3
	Psi	8	3

Source: own elaboration.

In MAXQDA, a coding system was introduced based on the literature review. It comprised codes for the 12 factors frequently appearing in literature and 4 additional codes for generational cohorts. These have been listed in Table 4. Next, the interview transcripts were analysed and segments relevant to motivation factors were coded together with the segments relating to generational cohorts. Codes were applied where a factor was mentioned in the positive sense i.e., the presence of a factor increases the employee motivation e.g., Affiliation is a motivation factor for all generations. These were then reviewed for intersections. Also, the segments relating to the respondents understanding of the concept of motivation were coded and analysed.

Table 4.
Code tree

Literature review	Generational cohorts
<ul style="list-style-type: none"> • Affiliation (belonging to a group) • Autonomy • Finance (remuneration) • Growth possibilities • Leadership (of superior or senior colleagues) • Meaningfulness of performed work • Pleasure (of work) • Recognition (by peers or superiors) • Remote work possibility • Work-life balance • Working conditions • Stability of employment 	<ul style="list-style-type: none"> • All generations • Generation X • Generation Y • Generation Z

Source: own elaboration.

The coded segments were then retrieved to investigate in detail segments where the codes denoting motivation factors intersected with the mentions of specific generational cohorts.

4. Research results and discussion

Based on the frequency of mentions of specific motivation factors in the interviews, as presented in Figure 5, the two most frequently mentioned ones, regardless of whether referring to all generations or a specific generation, are finance understood as remuneration (mentioned 86 times) and growth possibilities in the sense of training and promotion (mentioned 76 times). As indicated by Tau “the financial aspect of compensation is the most important regardless of whether you are young or not”. “Earning money is a physiological need in Maslow’s pyramid” says Eta. It needs however to be noted that as mentioned explicitly by both Kappa and Eta, the salary raise does boost the motivation in employees, but this boost is of a short duration. Iota pointed out, based on a real-life experience that letting people build new skills in new more responsible roles, growth, contributes to a motivation boost of a longer duration. Lambda expanded on that point sharing their own experience where a proposal of

taking on a more responsible role boosted their own motivation level, despite no remuneration revision coming with it. Lambda also went on pointing out that with the dynamic expansion of the IT sector in Poland, there is a lot of space for employees to grow and acquire new skills which constitutes a potential for increasing employees' motivation.

Less frequently mentioned, came factors like work-life balance (mentioned 36 times), leadership (mentioned 32 times) and autonomy (mentioned 31 times). As mentioned by Kappa in the context of work-life balance, being able to separate time spent on work and private activities has a positive effect on motivation. Both Eta and Zeta mention that employees, when asked, respond that being able to work four instead of five days a week would positively impact their motivation. When it comes to leadership, frequently mentioned theme was personal relation with employees and not letting the employees feel like “numbers in an Excel spreadsheet” (Sigma) “to be invoiced by the corporation” (Pi.) When it comes to autonomy, Psi mentions that it boosts not only the motivation, but also the ownership of the tasks assigned.

Factors which got mentioned less but still more than twenty times included affiliation (mentioned 26 times), recognition (mentioned 25 times), stability of employment (mentioned 23 times) and possibility to work remotely (mentioned 21 times). In terms of affiliation as a motivation booster, the recurrent theme included working together on jointly agreed goal, as phrased by Pi, and having a good relationship with co-workers, as mentioned by Beta. When it comes to recognition, positive verbal feedback recurred as a motivation factor. Beta mentioned an accolade program where employees receive public recognition together with a small gift. When it comes to stability of employment, Gamma and Lambda mentioned it, but in the context where it is taken for granted in the IT sector. Remote work possibility despite being mentioned 21 times, was discussed chiefly as an industry standard than a real motivation factor. Meaningfulness of performed work (mentioned 13 times) and the pleasure taken in performing the work (mentioned 3 times) were mentioned marginally.



Figure 5. Motivation factors in IT sector in Poland.

Source: own elaboration.

When discussing motivation factors in the context of generations X, Y and Z, the respondents indicated similar results per generations with different centres of gravity. Table 5 presents how frequently specific factors were mentioned as motivating when it comes to the generations in separation.

Table 5.
Motivation factors per generation

Motivation factor	Generation X	Generation Y	Generation Z
Finance (remuneration)	11	13	14
Growth possibilities	7	12	10
Work-life balance	5	10	14
Leadership (of superior or senior colleagues)	5	6	6
Autonomy	3	10	12
Affiliation (belonging to a group)	7	4	0
Recognition (by peers or superiors)	1	2	1
Stability of employment	16	1	4
Remote work possibility	0	1	4
Working conditions	3	2	1
Meaningfulness of performed work	2	3	1
Pleasure (of work)	0	0	1

Source: own elaboration.

The interviews drew the motivation profile of an employee belonging to generation X as being driven chiefly by the factor of stability of employment (mentioned 16 times). A repeatedly mentioned reason for this was the possibility to continue to provide for the family. As pointed out by Kappa “they have kids or families, and they need to provide for them”, reinforced by Beta bringing up the fact that this generation experienced high unemployment in their young years. This factor was followed by a related one - the financial aspect of employment (mentioned 11 times), growth possibilities (mentioned 7 times) and the affiliation (mentioned 7 times). The aspect of remote work and pleasure of work were not mentioned at all in the context of generation X.

Generation Y was described as motivated by the aspects of finance (mentioned 13 times), growth possibilities (mentioned 12 times) closely followed by the work-life balance (mentioned 10 times) and autonomy (mentioned 10 times). As accurately summarised by Sigma “Money is somewhere in their heads. But it's not the most important aspect” reinforced by Tau pointing to the fact that this generation is motivated by the possibility “to learn new technologies”. Other factors starting with leadership (mentioned 6 times), through affiliation (mentioned 4 times), meaningfulness of work (mentioned 3 times), recognition (mentioned 2 times) stability of employment (mentioned 1 time) and remote possibility (mentioned 1 time) were mentioned fewer times.

When it comes to generation Z, equally frequently mentioned motivation factors included finance (mentioned 14 times) and work-life balance (mentioned 14 times), however with strong accentuation of the former aspect. Iota characterised the generation by “No experience, because they did not work anywhere, and they want to gain a lot of money. And they expect that we will give them everything, all benefits, all bonuses at the beginning” supported by Lambda “I have impression that they want money, but it doesn't mean they want to put more work from their

side.” or Eta “They’ve got short temper. They need everything fast. They expect getting raises and salary increases very, very, very quickly”. Other factors, like stability of employment (mentioned 4 times), remote work (mentioned 4 times), recognition (mentioned 1 time), work conditions (mentioned 1 time), meaningfulness of work (mentioned 1 time) and the pleasure of work (mentioned 1 time) were mentioned rarely.

Certain differences in the specific aspects of respective factors were also noted between generations. Work-life balance in the context of X generation is mentioned as a possibility to take care of the family when needed, whereas in the context of generation Z, it is mentioned as possibility to work 4 days a week and being able to choose one’s own working hours. Similarly, growth possibilities by generation X are understood as a possibility to gain knowledge working along with more experienced colleagues whereas for generation Z the possibility to change roles. When it comes to working conditions, the possibility of real-life contact was motivating to generation X whereas online meetings were more motivating for generations Y and Z.

The interviews confirmed that finance and growth possibilities, which appeared most frequently in international literature in the context of various industries (Bussin et al., 2019; Chang et al., 2021; Wamala, Genza, 2022; etc.), were also the aspect most broadly mentioned by the interviewees in the context of the IT sector in Poland. Our findings confirmed strongly the results of Machova et al. (2022a) who also found that financial incentives are the most important motivation factor for all generations: X, Y and Z.

Our research results show also that work-life balance has significant impact on intrinsic motivation, for generations Y and Z. What is interesting, the similar conclusions were formulated by Lee et al. (2022) but in case of generation X. Our study did not confirm that this factor is important from point of view of the representative of X cohort. As stated, Lee et al. (2022), also in our study, the autonomy significantly positively impacts the intrinsic motivation of the respondents from Z generation.

The factor of affiliation, however, being among the top three in literature (Chang et al., 2021; Munir et al., 2017; Wamala, Genza, 2022; etc.) was mentioned by interviewees less frequently. This study did demonstrate that despite sharing similarities, there are differences between the factors motivating various generation contrary to the studies of Heyns & Kerr, (2018) and Machova et al., (2022b). The interviewees also scarcely discussed the factor of meaningfulness of performed work which was mentioned as strongly correlated with engagement level across all generations by Hoole & Bonnema (2015). It strongly confirmed the statement of Mahmoud, Reisel et al. (2021a) that the stability of employment has much stronger effect on the motivation of generation X than generations Y and Z. Interestingly, despite geographical proximity, none of the respondents of this study mentioned business travel as a motivation factor for generation Z accentuated by the study of Pechová & Stejskalová, (2019).

5. Conclusion and managerial implications

Finance, having received the broadest coverage in the interviews conducted, must inadvertently be considered as a key motivation factor by employers in Polish IT sector. It should, however, not be taken into account in separation as giving the employees possibilities to develop their skills and take on more challenging tasks needs to go hand in hand with it to ensure that the motivation boost is of long duration. The leadership should focus more on being there to support employees if in distress, letting employees take autonomous actions for which they will be accountable.

Since in the case of younger generation receiving immediate financial incentive is considerably more important than the stability of employment as in the case of more senior employees, the company could consider introducing various form of employment starting with stable permanent work contracts going to output-based mission contracts with special incentives dependent on the complexity of performed tasks.

From a theoretical standpoint, the research results contribute to the development of the renowned motivation theories by indicating the key motivation factors in case of IT sector employees. Considering managerial implications, this study's results can be useful for managers in IT sector in Eastern and Central Europe in developing their human resources strategies and in motivating employees.

6. Limitations and future research

The results of the study performed on a group of 16 respondents indicated by informants, cannot be generalized in probabilistic terms, as the sample was not chosen randomly (Chybalski, 2017, p. 9). The results of the should be considered as preliminary. As the sample was not selected randomly, they cannot be used to make inferences about the entire population of Polish IT sector employees. Therefore, this research can encourage further reflection on employee motivation in IT sector.

A larger scale qualitative and quantitative study performed on a representative randomly selected sample of employees working in the IT sector in Poland could validate the findings of this study as a follow up. The interviewees indicated by the HR management of Atos Poland Global Services all worked for the same company at the time of the interviews, having, however, considerable previous experience from former employers.

The question of durability of motivation induced by financial incentives and variables having mediating effect on it is a direction in which future research could bring value in terms of managerial implications. An experiment examining the correlation of belonging to

generational cohorts and the choice of type of employment contract (permanent or incentive output-based mission contract) would indicate a direction for IT companies in view of the younger generations becoming the dominant part of the workforce.

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