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## Article

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Article

# Motivators Influencing the Efficiency and Commitment of Employees of Agile Teams

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**Abstract:** The production of new IT products and services in today's dynamic world of business and ever-evolving technology requires specific enterprise policies geared toward supporting innovation. Striving to provide the customer with the required value that meets the customer's current requirements is becoming quite a challenge for IT enterprises at this time. Moreover, innovative ideas are not created in "rigid" authoritarian-managed teams, but in an open culture based on the principles of self-organization and self-discipline, a characteristic of agile teams. One of the key determinants of a company's competitive advantage is employee effectiveness and commitment. Moreover, there are few publications covering research on employee effectiveness in agile teams. Therefore, the overarching goal of this article is to identify the motivators influencing the commitment and effectiveness of agile teams. In order to achieve the desired goal, an analysis of the research on the effectiveness and commitment of employees of a selected Polish IT company within the industry was conducted. As a result of the analysis of the obtained research results, seven determinants were developed, which have the greatest importance for agile teams and their motivation and effectiveness. Moreover, as the concluded research results show, the use of agile team models and open innovation positively affects the efficiency and commitment of employees.

**Keywords:** engagement; effectiveness; project management; agile; innovation; project team



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## 1. Introduction

The increasing dynamics of the environment [1], the high level of volatility [2], and adaptation to constantly changing requirements [3] is intensifying the search among enterprises for tools and ways to adapt to changes, and ways to create these tools [4]. Enterprises are forced to increasingly search for new solutions or methods to support compliance with market requirements. This boils down to an increasingly conscious use of knowledge transfer [5,6]. In other words, companies are increasingly turning their attention to the open innovation model [7,8], which is becoming a common business phenomenon [9], thus arousing interest in the scientific community [10,11]. Although there has been a significant increase in scientific research in the field of open innovation (OI) [12–16], it mainly takes an enterprise perspective [9]. As Bagherzadeh et al. [9] note, in order to fully understand IO management, it is necessary to shift research to the project level, of which there is relatively little in the literature. The above is also confirmed by Felin and Zenger [17], who note that different projects will require different mechanisms for open innovation.

Open innovation, according to the general definition by Chesbrough and Bogers [18], is an innovation process based on deliberately managed internal and external knowledge flows, using financial and non-financial mechanisms consistent with the organization's business model. The above definition was adopted considering three arguments:

- An enterprise must adopt a set of practices that facilitate internal and external knowledge transfer [16].
- Processes [19], competencies [20], and adequate human resources [21] must be integrated.

- Financial and non-financial mechanisms [22] must be present.

The level of innovation at both the enterprise and project levels is influenced by the efficiency and commitment of employees [23,24], which also plays a key role in building a company's competitive advantage. Satisfaction of the team translates into productivity at work and a low percentage of turnover in individual projects, which in turn affects the satisfaction of existing customers and facilitates the acquisition of new opportunities and development options. Furthermore, an analysis of the literature highlights the commitment and effectiveness of agile teams [25,26].

The agile approach to project management, as opposed to the traditional one, is based on greater freedom in project execution [27], a focus on the expectations of the environment [28], and speed of response to changes that occur [29], which are enforced by using less formalized and rigorous solutions in favor of greater flexibility of activities in the implemented project [30]. In addition, the agile approach assumes that the team is not only competent [31], but also motivated to create an innovative product (such as software) [32,33]. Given the above, it can be concluded that the effectiveness of agile team members is one of the key factors in the success of IT projects [34], which is also confirmed by global reports (Chaos Report). In addition, the continuous development of software development techniques and the implementation of innovative technologies and devices ensure growth, resilient development, and the high position of organizations in the global market [35]. The process of digitization, as well as changes in society and the desire for automation, affect the ever-increasing demand for IT services [36]. According to data published by the Statistics Poland office [37], in 2018–2020, product innovations or business process innovations were introduced by almost one in three enterprises in Poland (31.1%). Considering only ICT enterprises, innovations were introduced by nearly one in two enterprises (47.2%), with service enterprises (47.7%) introducing them more often than manufacturing enterprises (43.0%). Business process innovations were more common in both the ICT sector and the economy as a whole.

Given the above, the overarching goal of the article is to conduct an analysis of the effectiveness of employees of agile project teams of an IT company and competing companies, which will ultimately contribute to identifying the factors that matter most to the teams and influence their motivation and effectiveness.

## 2. Theoretical Background

### 2.1. Characteristics of Agile Project Teams

In projects characterized by innovation, it is problematic to indicate the full scope of project work, which is required when implementing work based on the cascade model and traditional management methods (e.g., PMBoK, ICB, Prince2) [38,39]. Agile methods discard the need to create descriptions of the task elements to be implemented, while the priority is on functionality and a properly functioning system or component that is ready to be handed over to the customer [40]. The basis of agile methods is teamwork, self-organization of team members, proper communication, and creativity [41,42]. The agile approach to project management largely boils down to the human factor, placing special emphasis on communication, commitment, collaboration, and stakeholder proactivity [30].

Increasingly, it is emphasized that project success in modern reasoning should consider not only the dimension of efficiency and business impact on the organization and customer (benefits), but also new perspectives for all stakeholder groups, directly related to the appropriate achievement of their desired level of satisfaction, viewed from the perspective of organizational, personal, and technical implementation of the project [41,43,44].

In the teamwork models used in IT projects, the issue of communication between project team members is of particular importance [30,41]. Moreover, each team member in an agile approach to project management should be empowered to make day-to-day decisions inside established boundaries, which promotes independent work [45]. In contrast, issues that exceed the team's designated decision-making authority are escalated (formally or informally) to the project level, most often by the team leader, for quick resolution.

Although the topic of agile project management methods has been covered by many researchers [38–43], it still remains relevant [46–49]. Moreover, there are few publications covering research on employee effectiveness in agile teams. Thus, in accordance with the call of Khan et al. [50] and Doblinger et al. [51] regarding research needs in the field of agile teams, a research gap has been identified that requires conducting studies on the engagement and effectiveness of agile teams.

## 2.2. Team Effectiveness Factors

Effectiveness is a basic category for indicating the state and describing how things work, as well as determining the opportunity for employee development in the organization.

In the literature, it is translated as the results of an action, which are mostly combined with an economic effect [52]. It affects an employee's ability and willingness to carry out the company's strategy and achieve a certain goal [53]. Efficiency is used to evaluate the performance of the entire enterprise, but it is also applied to teams and individual units [54]. The concept of efficiency is associated with the principle of rational management and maximization of the effect in relation to the limitation of inputs [55]. The concept of efficiency is also equated with effectiveness. However, Helms [56] pointed out the difference, emphasizing that efficiency involves doing work in the right, correct way, while effectiveness is about doing the right thing.

An aspect that particularly needs attention is the effectiveness of the team and its members. The team should be seen as an organism that represents more than just the results achieved. There are also factors such as job satisfaction and motivation that are strongly interconnected and affect the end result of work. The ability to work effectively diminishes when employees feel frustration and lack of satisfaction, a sense of influence, or appreciation. Effective work should not be considered to be when the task has been completed and the goal achieved, but the team members are burned out and reluctant to do more.

An important factor affecting the effectiveness of a team is the characteristics of the team built and its tasks, as well as the potential of the employees and their relationships. The traits of an effective team include [57]:

- Finding the right target that engages the entire team and is challenging;
- Identifying and defining a mode of work that has been accepted by all members (e.g., organization of meetings, means of communication, schedule);
- Complementary competencies among team members;
- The appropriate number of people in a given team;
- Shared responsibility for both successes and failures.

High cognitive properties can positively affect team functioning [58]. They determine the cognitive potential together with the level of reasoning and the speed of information processing. Diverse in terms of seniority, knowledge, and experience positively influences a team's efficiency and innovation.

Given the above, it is therefore necessary to refine the indicated research gap by identifying the determinants of engagement and effectiveness of agile teams.

## 2.3. Motivating and Building Employee Commitment

One of the main dimensions that builds employee commitment is proper motivation. As Wulf et al. [59] point out, motivation is a state in which behavior is activated to point in a particular direction. Each individual has different and individual aspects that increase their commitment to specific tasks. The purpose of motivation is to influence employees using different types of incentives. The above considerations are also confirmed by Fischer et al. [60], further highlighting the impact of motivation on employee creativity and innovation. This should result in increased willingness to work and greater efficiency [61].

As pointed out by Zameer et al. [62], the greatest benefit of motivation comes when the employee ties his goals to the organization [59]. In order to adjust motivators in an appropriate and correct way, it is necessary for an individual to determine his or her

individual motivational needs and for a leader or manager to recognize them [63]. Measures should be selected separately for each employee.

An incentive system is made up of factors and rules that create incentives that affect employees in order to encourage them to work for the benefit of the employer [64]. Moreover, according to the insights of researchers [65–67], there is no universal system—what works well for one person may affect another in an opposite, negative way. Each organization should have a system and motivational tools tailored to its characteristics and values, while taking into account the requirements and specific needs of employees.

### 3. Materials and Methods

Conclusions drawn from the analysis of the literature covering IT project management methods using agile approaches [42,45], and employee effectiveness and engagement [54,63] indicate a research need for evaluating measures taken in IT companies to sustain or enhance the effectiveness of agile teams. Furthermore, given the suggestions of researchers covering the existence of different motivators and the lack of universal principles [65–67], this article focuses on conducting an analysis of the effectiveness of employees of the selected company using agile methods in project management and comparing the results with motivators in order to understand their impact on efficiency. In addition, to increase the reliability of the measurement of effectiveness, complementary research was conducted at other IT companies using agile methods in project management.

Taking into account the small scientific exploration in the above scope, a deductive approach was adopted, focusing at the same time on qualitative research including analysis and comparison of the results of standardized interviews, which were conducted among employees of the selected enterprise and employees of other IT companies. As emphasized by some authors [68], designing a case study is particularly useful when a researcher develops a theoretical approach in a specific context. The selection of the company was based on several criteria. Firstly, the company operates in the IT industry on an international scale. Secondly, the company uses an agile approach to project management, characterized by self-organization of team members, collaboration, and open communication. Thirdly, the company uses the open innovation model.

#### 3.1. Properties of the Selected Enterprise

The IT company selected for the research operates on the international market. It is headquartered in Poland; however, its branches can also be found in the UK, Germany, Ukraine, and the Philippines. It currently employs more than 900 people, fulfilling orders from customers in various industries from 15 countries. In accordance with the company's decision, its full name has not been used to preserve anonymity.

The company's approach is characterized by a friendly way of managing people and creating relationships on trust. The company's mission is: "We create technology solutions that empower people and organizations to realize their full potential and make a positive contribution to human life." Based on this, the approach is based on five pillars: technical expertise, high quality service, partnership based on trust, flexible approach to operations, and high work ethics. The company also uses an open innovation model where not only is there a focus on employee development and knowledge sharing, but cooperation with partner companies also plays an important role, as about 20% of technical people in projects are developers and testers working together on a body leasing basis.

The company uses the principles of an agile approach to project management to implement projects, and teams produce software based on the adopted Scrum method. Moreover, an employee is assigned to a project only when he or she expresses interest in it. This way ensures that the development in a given team is in line with the direction in which the interested person wants to go. At any time, the employee has the opportunity to request a change; this request is always accepted after individual arrangements between the project manager and the technician. These changes are not frequent in the company



due to the selection of clients similar in values and culture and close-knit project teams with friendly attitudes and strong relationships.

“Happy Team” research is conducted periodically at the company, once a year in the autumn, with the aim of identifying the factors that properly engage and motivate employees to work effectively, and which ones still need to be improved. Based on the results of the research, a strategy for the company’s development is created, as well as an indication of the direction in which the company should go.

### 3.2. Research Tools

The company’s “Happy Team” research is based on a structured interview with 54 questions grouped under nine categories. Each employee receives a unique link to the website where questionnaire is located in their individual e-mail inbox. The questions primarily use a five-point Likert scale: strongly agree, agree, do not know/no opinion, disagree, strongly disagree. Furthermore, questions related to the employee’s future at the company are added, as well as space for additional comments.

The result, which indicates how things are in a given company, is a performance matrix. It shows the distribution of employees in terms of their perceived level of commitment and support. It assigns employees to four categories:

- Most effective—show a high level of commitment and at the same time assess that they have a lot of support from the organization;
- Distanced—rate support from the organization highly, but do not feel adequately involved.
- Frustrated—believes he or she is engaged; however, is not receiving support from the company;
- The least effective—is not engaged or supported in any way by the organization, and thus cannot be effective.

The study was conducted at the end of 2020. A total of 677 employees participated in the research, with 53 choosing not to participate. This is an all-time high of 93% of all employees, including 91% of technicians working on agile-managed projects.

In order to compare the results of the company’s “Happy Team” research with other companies in the industry, an additional structured interview was conducted among employees of IT companies working in agile teams. The interview questionnaire was sent online using the social networking site Facebook, sharing a link to the form on closed topic groups aimed at people interested in software development and testing. The interview questionnaire primarily targeted employees of IT companies working in an agile team on a daily basis. The sample was randomly selected, and the questionnaire could be filled out by any person who had access to it. The structured interview was based on 17 questions selected from the “Happy Team” research, which directly relate to the previously mentioned nine categories, as well as a metric and the motivators used in the company.

A total of 67 people responded. After verification of the accuracy of the completed questionnaires, 61 completed questionnaires that met the adopted assumptions were finally taken into account.

Considering the qualitative nature of the research, it is assumed that they should be reliable. This reliability results from the size of the error that is related to the measurement tool used, and which is generated randomly in the subsequent measurements with the use of a given tool [69]. Furthermore, if the research tool includes a qualitative rating scale, the resulting data should be checked for internal consistency. The most common of the techniques used to measure reliability is Cronbach’s alpha [70]. According to the accepted interpretation of the literature [69–71], a coefficient result above 0.6 is considered satisfactory, above 0.8 indicates very good reliability, and 0.9 indicates excellent reliability of the research. The results of data reliability measurement are presented in Table 1.

**Table 1.** Measuring the reliability of the interview questionnaire.

Specification	Cronbach's Alpha Coefficient Value	
	Enterprise	IT Industry
How many years do you plan to stay and work at your current company?	0.9809	0.9488
I would recommend working at the company where I work to family members and friends.	0.9794	0.9448
At work I have the opportunity to perform challenging and interesting tasks.	0.9789	0.9437
My work allows me to make good use of my skills and abilities.	0.9787	0.9444
I have a good understanding of the strategy and goals of the company I work for.	0.9787	0.9461
I work for a company that has good prospects for growth in the next 2–3 years.	0.9787	0.9448
My team works well together	0.9800	0.9479
The company where I work relies on honest and open communication.	0.9803	0.9435
I trust my immediate supervisor.	0.9798	0.9453
I feel that my company provides development opportunities.	0.9792	0.9450
I have advancement opportunities.	0.9787	0.9464
My salary is fair and comparable to similar positions in other companies	0.9808	0.9452
I receive other benefits and perks from my employer that are attractive.	0.9788	0.9465
I get clear and real feedback on the quality of my work.	0.9794	0.9460
I see a clear link between my performance and my salary.	0.9802	0.9439
My company takes care of its employees.	0.9805	0.9424
I am happy in the company where I currently work.	0.9787	0.9429

#### 4. Results

In the following section, the analysis of selected 17 questions from the “Happy Team” research was performed first. In addition, the obtained results were compared with the results of a survey of employees of IT companies working in an agile approach to project management. It should also be noted that within both target groups, the questions were asked in the same form.

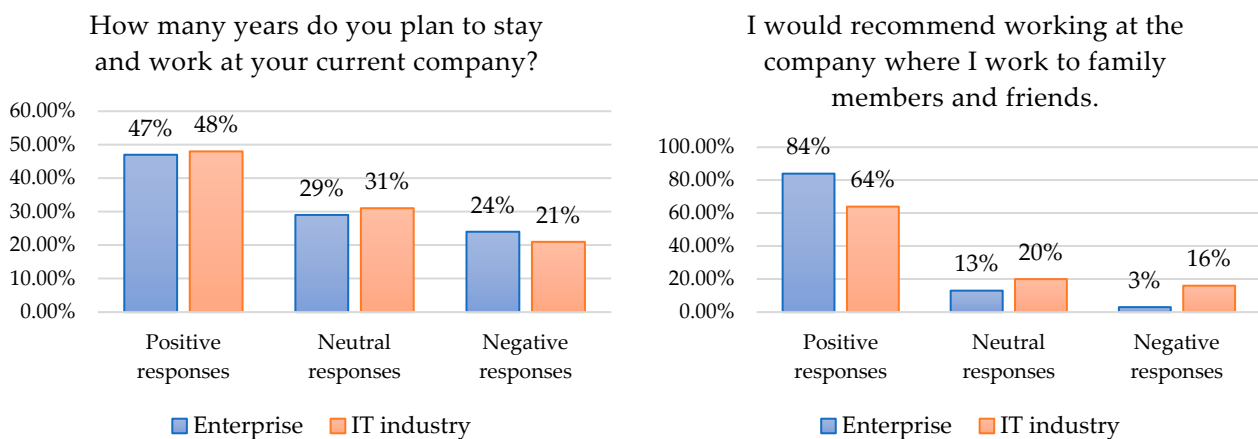
Then, on the basis of the collected responses and the respondents’ declarations regarding the used motivators, a comparison was made and the weighted average was calculated, on the basis of which the motivators that translate to the greatest extent into employee efficiency were determined.

Furthermore, the section was divided into nine sub-sections representing the categories assigned in the “Happy Team” research. It should also be noted that to make the data presented clear, the responses expressed on the Likert scale were grouped into three categories covering positive, neutral, and negative responses.

##### 4.1. Commitment

In the conducted research, negative answers in the question on the length of time the respondent plans to stay at the current company are considered for the options of less than 1 year and 1 to 2 years. A range of willingness to stay in the current company from 3 to 5 years is considered neutral. A positive answer is to mark the option of more than 5 years.

A comparison of responses from the two researches (Figure 1) shows no significant differences, with almost half of all responses being positive. In 2020, the Bulldog Job portal [72] conducted anonymous research on a group of 5500 participants related to IT and other industries. The analysis of the report shows that the largest group of employees changes jobs every 2–3 years or so; this option was indicated by 44% of respondents. Such a high share of positive responses may indicate employees’ attachment to the company where they currently works, the right atmosphere, and overall satisfaction with the situation. An employee who shows a willingness to stay at one company for a longer period of time is likely to receive support from the employer, feel that he or she has the opportunity to grow, and demonstrate efficiency and commitment.



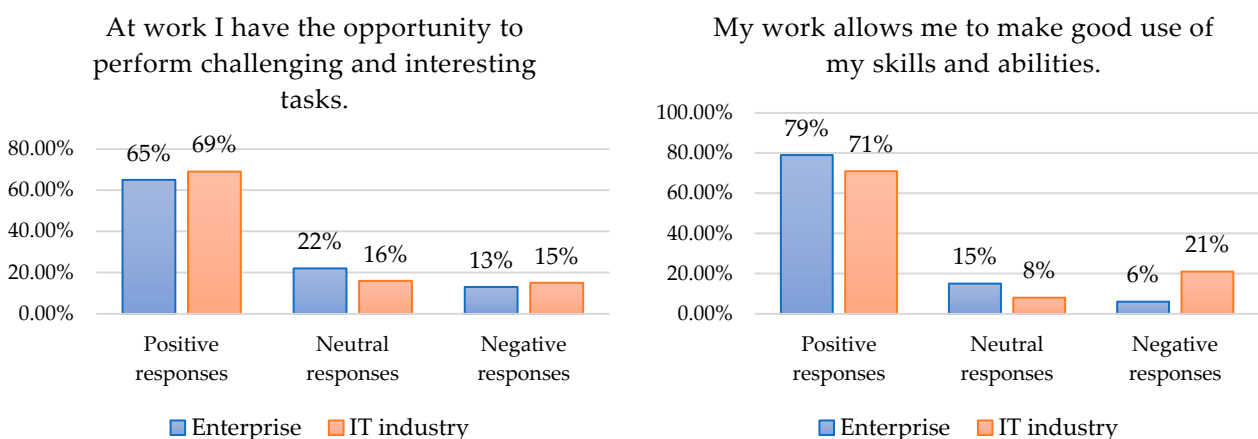
**Figure 1.** Comparative analysis of performed research in the enterprise and IT industry—engagement.

According to the results, 85% of the employees of Company X would recommend working at this company, a result 21 percentage points higher than seen in research on employees of other IT companies. Despite the rather significant differences in response to this question in both researches, more than half of the respondents indicated the answer that they would recommend working at the company where they currently work. Given the scarcity of specialists in the labor market, employers are trying to provide the best possible working conditions in order to reduce turnover at their company and attract more employees.

#### 4.2. Support

According to the results of the research (Figure 2), both in the industry and in the company, positive responses prevail, amounting to about 70%. Thus, it can be concluded that employees of agile teams in IT companies receive adequate support from the company they work for—they are offered interesting and challenging tasks and projects in which they have the opportunity to demonstrate and use their skills.

One of the primary factors identified by the Total Rewards model [73] is attention to employee development opportunities. A factor that positively influences an employee's effectiveness is his or her correct assignment to the right project, where the tasks will be interesting and challenging, where he or she will have the opportunity to use his or her potential and learn new aspects, but at the same time, where it will not be too difficult to accomplish his or her tasks. It is therefore important to correctly match the type and level of assignments to the position and experience of the employee in question.



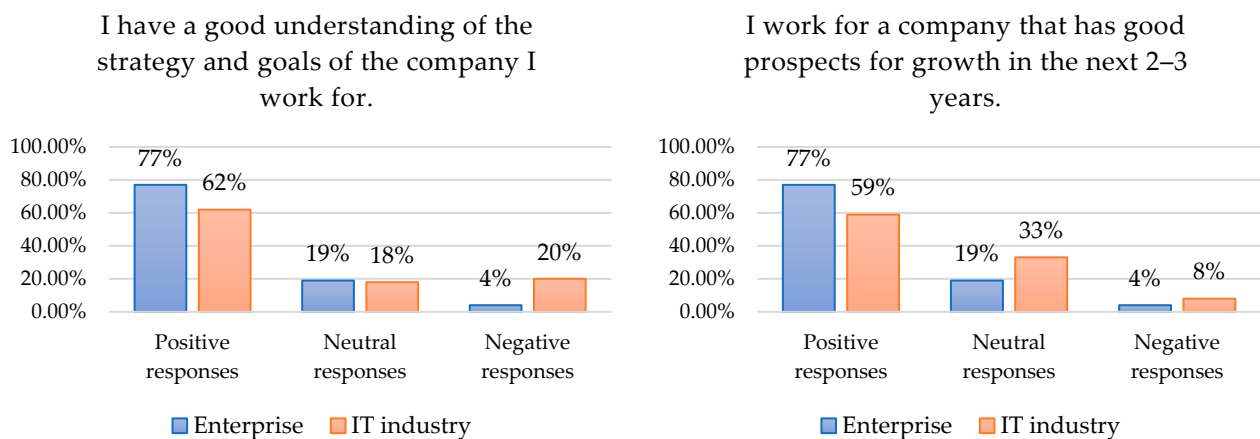
**Figure 2.** Comparative analysis of performed research in the enterprise and IT industry—support.



#### 4.3. Clear and Engaging Direction

Of responses from the “Happy Team” research, 77% indicate that employees understand the company’s strategy (Figure 3). This result is higher than the assessment of this aspect by employees of competing IT companies. Moreover, according to the majority of employees at Company X (77%), the company has good growth prospects in the coming years. Furthermore, more than half of the industry responses indicate that the company where the respondents work is prosperous and that this will be evident over the next 2–3 years.

Given the nature of agile teams and the results of research presented by The Standish Group “Chaos Report” [74,75], one of the factors in IT project failures is a misunderstanding of the goals and needs of customers or users. The goals that an IT project is supposed to achieve are most often derived from the organization’s strategy and, in a way, involve a number of changes in the functioning of parts or even the entire enterprise [30]. IT companies in most cases try to define and communicate the company’s strategy and planned development to their employees. IT companies openly and clearly indicate the directions they are taking and involve employees in the joint achievement of goals.

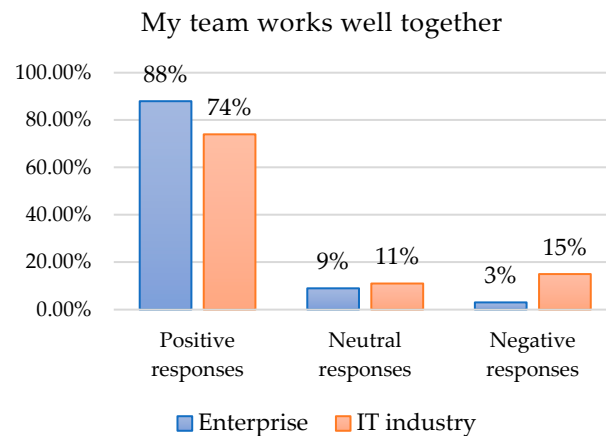


**Figure 3.** Comparative analysis of performed research in the enterprise and IT industry—clear and engaging direction.

#### 4.4. Cooperation

According to the research results (Figure 4), employees of IT agile teams overwhelmingly believe that the work in their team is going well.

The reason why this can happen is the self-organization of the team and the flexible approach of superiors and management to the project at hand. Inadequate selection of people to work on the project, both in terms of professional competence and soft skills and personal qualities, can cause failure to achieve the goals and lead to de-motivation and lower efficiency of employees. The atmosphere within the team is also key, as good relationships foster better performance and a sense of satisfaction and attachment to the current job, which is conducive to reducing turnover in the company.

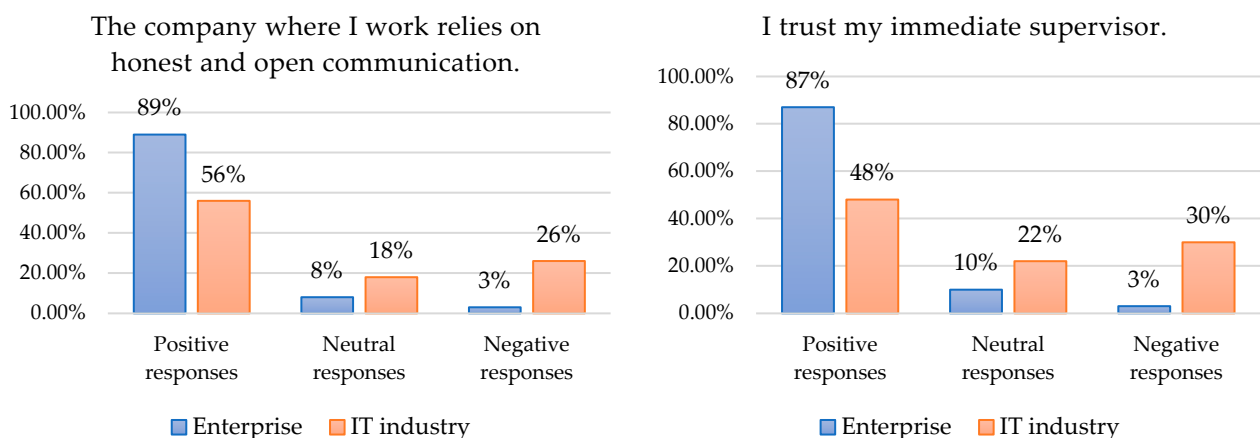


**Figure 4.** Comparative analysis of performed research in the enterprise and IT industry—cooperation.

#### 4.5. Trust in Leadership

As the results illustrate (Figure 5), the vast majority of employees at Company X (87%) trust their supervisor, an opinion shared by 48% of employees at other IT companies.

Analysis of the responses is not conclusive. Most employees of agile teams trust their immediate supervisor and believe that the company they work for puts a premium on sincere communication, but a sizable proportion of responses (about 30%) are negative indications. It is apparent that the responses of employees of Company X far outweigh the positive responses of employees of other companies. Trust in leadership is as high as about 90% of employees. The difference in the compilation of research may be due to the open internal communication and sincerity of the management to the employees. Every two weeks, a status update appears on the company's internal website, including description and information about current customers, profits, and the problems the company is facing at the moment. Openness in communication can also translate into relationships within the team and relations with the immediate supervisor, who periodically talks to employees summarizing his or her work and provides feedback on meeting expectations in the project.

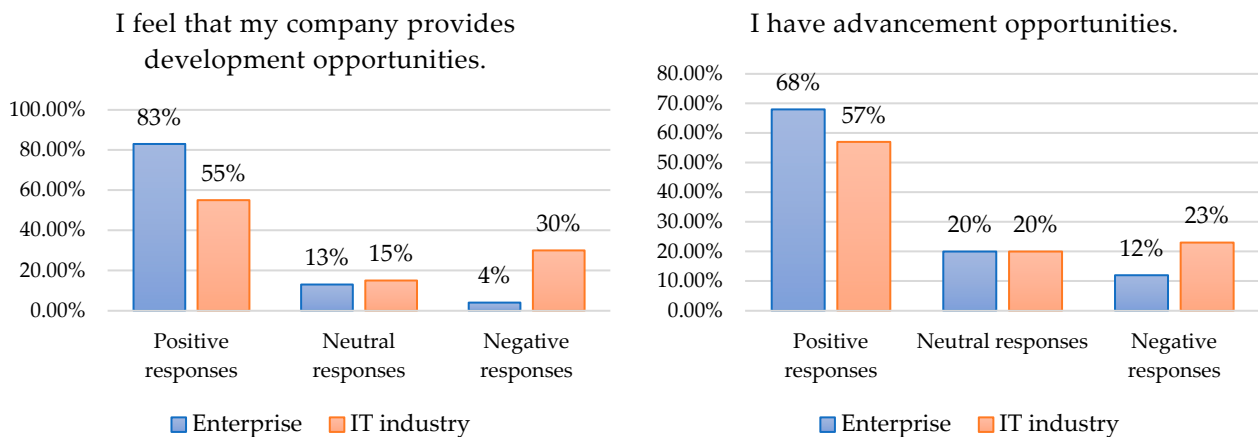


**Figure 5.** Comparative analysis of performed research in the enterprise and IT industry—trust in leadership.

#### 4.6. Development Opportunity

According to the research results (Figure 6), for the most part, members of agile teams have opportunities for development and advancement. Both the Total Rewards model [73] and Motivators identified in Management 3.0 [76,77] point to development opportunities as a key factor for full employee effectiveness and satisfaction. Development can be considered both the improvement of competence through participation in training, courses and conferences, and participation in interesting projects in which the employee has the opportunity to learn new things and to acquire new skills, as well as advancement

options. The experience gained should translate into entering a higher level of career in the organization, which is related to the financial aspect. The lack of opportunities for development or promotion often forces employees to change employers.

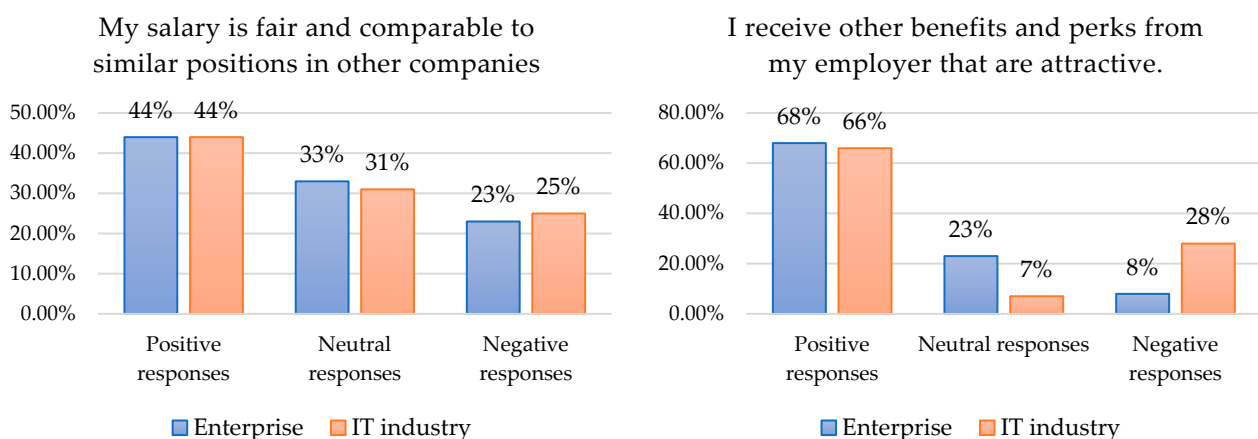


**Figure 6.** Comparative analysis of performed research in the enterprise and IT industry—development opportunity.

#### 4.7. Salary and Benefits

Responses to the question about the fairness of pay are consistent when the two research are juxtaposed (Figure 7); 44% of employees believe that they earn an appropriate amount, comparable to the rates offered at other companies for people in similar positions. A large percentage of responses to the Company X research are neutral responses; 3% of employees do not know or have no opinion on whether the benefits and perks offered are attractive.

On the other hand, almost 70% of employees of IT agile teams are satisfied with the benefits and fringe benefits offered by the employer. Thus, it can be concluded that employees are not satisfied with the salary they receive (they do not consider it fair), while they appreciate other benefits offered to them.

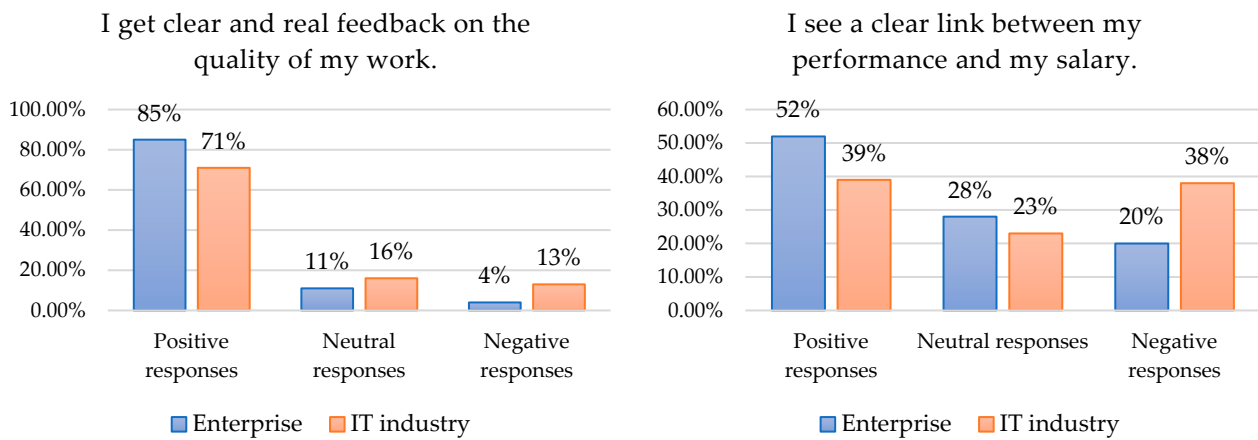


**Figure 7.** Comparative analysis of performed research in the enterprise and IT industry—salary and benefits.

#### 4.8. Performance Management

In the researched company, a conversation is held at the end of each quarter during which the team leader gives the employee an evaluation about his or her work. As illustrated by the research results received (Figure 8), 85% of people from company X confirm that the information provided is understood by them, while 4% of employees believe that they do not receive this type of information. Moreover, 71% of employees of agile teams

in other companies in the industry agreed with the statement regarding regular and clear feedback related to the quality of work provided.



**Figure 8.** Comparative analysis of performed research in the enterprise and IT industry—performance management.

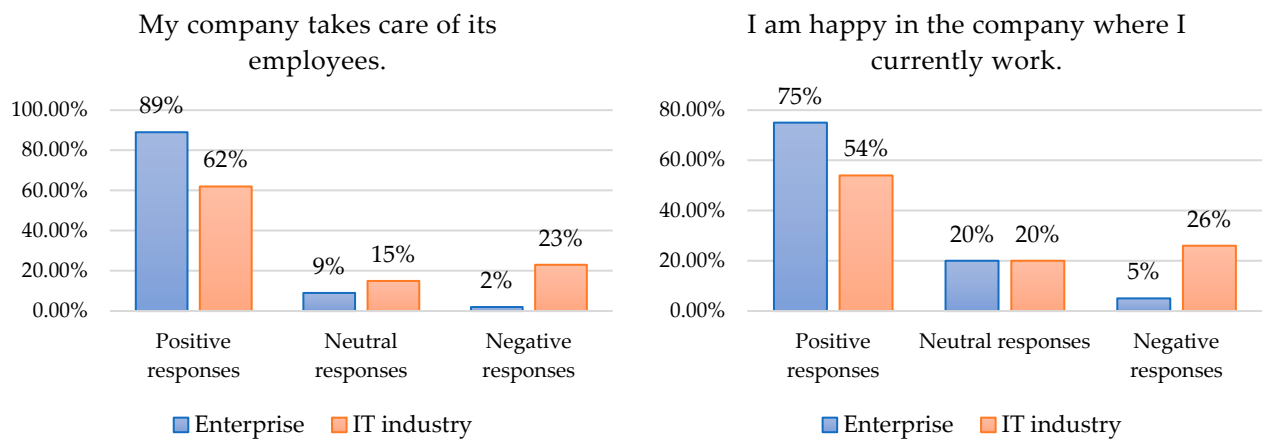
In response to the question about the relationship between performance and remuneration, the positive answers fare somewhat worse, with only 39% of respondents from competing companies and 52% of company employees confirming this opinion. Negative answers predominant.

Based on the analysis of this area, it can be concluded that employees of agile teams regularly receive information related to their work and evaluation. In an understandable way, new goals are defined and those already achieved are reviewed. On the other hand, the question related to remuneration scores less well, which ties in with some of the questions about financial benefits and perks offered. Employees are likely to become used to the salary they receive and would like to receive further bonuses and raises, which is not always possible. Above that, the results achieved and the achievement of the goals assigned to an individual or even an entire team do not necessarily translate into increased profits for the company, as they are also influenced by many other factors.

#### 4.9. Respect and Appreciation

According to the results (Figure 9), almost 90% of the researched employees of agile teams in the company agree or strongly agree with the statement that the company shows concern for the people it employs. In the case of competing companies, this view is shared by 62% of respondents. The above reflection can also be seen in the answers to the second question about being satisfied/happy with work at the current company.

Despite the problems and areas for improvement, a very high percentage of research employees of agile teams indicate that they are satisfied with their jobs at their current company and appreciate the steps their employer is taking to demonstrate care. Job satisfaction and happiness should translate into the other areas researched. Despite the fact that employees rate their compensation slightly lower, they are reluctant to agree to change jobs. Therefore, it can be concluded that, with the exception of financial aspects, other factors such as respect, recognition, and team atmosphere are also important.



**Figure 9.** Comparative analysis of performed research in the enterprise and IT industry—respect and appreciation.

#### 4.10. Evaluation of Motivators Used in IT Companies

The overriding goal of the article is to determination of the motivators that most influence employee performance. The above selection was made based on a comparison of respondents' answers involving the identification of relevant motivators influencing performance with the ratings given for the categories described above (commitment, support, clear and engaging direction, cooperation, trust in leaders, development opportunities, compensation and benefits, performance management, respect, and recognition).

According to the results (Table 2), the most appreciated by employees, and thus influencing increased efficiency, are a clearly defined employee evaluation system and specific rules for raises. Moreover, there are small differences in the value of individual motivators and their impact on employees is almost equal. Therefore, it can be concluded that the factors affecting work motivation are individual and can affect each employee differently; hence, it is hard to clearly identify and select them for the whole company.

**Table 2.** Motivators used and their impact on performance.

Motivator	Average	% of Responses
A clearly defined employee evaluation system	4.1197	21.31%
Regular and clearly defined rules for raises	3.8963	24.59%
Additional insurance	3.8440	42.62%
Team integration funding	3.8083	32.79%
Supporting the company with the responsibilities of personal life	3.7847	13.11%
Interest sections	3.7732	19.67%
Benefit platform	3.7485	62.30%
Extra-curricular activities outside of work, e.g., guitar lessons	3.7176	19.67%
Casual gifts for employees and families	3.7164	31.15%
Medical care	3.6812	68.85%
Free lunches for employees	3.6754	31.15%
Free language lessons	3.6356	39.34%
Financial incentives	3.6324	55.74%
Cards, sports packages	3.5894	67.21%
Preschool/nursery for employees' children	3.5889	16.39%
Fruit, snacks in the office	3.5600	40.98%
Flexible working hours	3.4796	49.18%
Vacation subsidies	3.4346	27.87%
Organization of company-wide events	3.4306	45.90%

## 5. Discussion

The analysis of the results of the research established that employees of agile teams are engaged and enjoy their work. They receive support from the company, which gives them the opportunity to perform interesting tasks according to their level and competence. The company they work for clearly and openly presents the direction to employees and engages them in achieving the goal together. Employees of agile teams trust the company and their immediate superiors. Agile teams are based on good cooperation between members, who are rewarded accordingly. Employees have opportunities for development and advancement, and the company manages performance appropriately. Employees feel that they are respected and appreciated for the work they perform and are happy to work for the current company.

According to the results of the research, it is possible to list seven determinants affecting the effectiveness and commitment of employees in agile project teams.

1. A clear and adequate system of employee appraisals, rewards, and promotions, as well as a customized appraisal system—this is a key factor in the effectiveness of the employees of any enterprise. As Randhawa [78] points out, only when employees are subject to constant evaluation can organizational performance and the resulting efficiency and commitment be achieved;
2. Proper assignment of the employee to the right project, where the tasks will be interesting and challenging, where he will have the opportunity to use his or her potential and learn new aspects, but where, at the same time, tasks will not be too difficult—the above factor was also confirmed by Vishnubhotla et al. [79], emphasizing at the same time the role of team climate;
3. Defining and communicating the company's strategy and planned development to employees—as Ali et al. [80] point out, for many employees stress the importance of security and stability in carrying out the company's plans. They want to be sure that the company will be able to provide them with adequate financial conditions. It is important to feel that the employee knows and understands the company's strategy and goals, and that the company has adequate opportunities for growth;
4. Self-organization of the team and flexible approach of superiors and management to the implemented project—the basis of agile methods is the ability of team cooperation, self-organization of team members, proper communication and creativity [25,27]. In addition, in the process of software development, agility is associated with the desire and need for change in the approach to the process and the rejection or simplification of the formal aspects of traditional methods [30], which must also be translated into the approach of superiors and management to the implemented project. This factor not only directly affects the effectiveness of agile teams, as confirmed by the research results obtained, but also represents one of the key factors in the success of IT projects [34,43];
5. Team atmosphere—good relationships foster better performance and a sense of satisfaction and attachment to the current job, which helps reduce turnover in the company. A proper atmosphere promotes openness and mutual trust [81], where employees' beliefs and choices are respected and their needs and ideas are listened to;
6. Regularly receiving information related to work performance and evaluation—as Reddy [82] points out, feedback from immediate supervisor helps to bring about positive changes in employee behavior. In the agile approach to project management, it is important to create an overall vision and concept of the intended outcome, without going into details [42]. The main goal is to deliver a product or system that meets the customer's expectations. The project cycle is iterative, meaning that individual components and functionalities are delivered on an ongoing basis [30]. The effects of the work are already visible and progress is communicated at regular intervals [78]. Consequently, feedback plays a key role, which not only enables further work of the team but, as the obtained research results emphasize, also influences its efficiency and commitment;



7. Benefits and extra benefits tailored to the needs of individual employees—employees' expectations depend on the current situation in their personal lives, in the labor market, and change over time. IT companies provide their employees with a wide range of non-wage benefits to sustain motivation and commitment. Motivational measures should be tailored individually, and it is the responsibility of the direct supervisor to recognize the needs of the members of the entire team and identify appropriate motivators. Each employee determines the attractiveness of individual benefits and motivators differently.

The literature on open innovation in terms of engagement [83,84] focuses attention on elements of human and social capital. Moreover, as research by Naqshbandi et al. [85] shows, employee engagement strengthens the open innovation leadership connection. Accordingly, strengthening employee involvement in relevant decision-making improves development and organizational performance related to open innovation [86]. As the research results show, the use of agile team models and open innovation positively affects employee performance and commitment. In industries where there is a high level of innovation and the constant expectation of creative solutions proposed by employees, conventional management methods do not meet the required expectations.

Although the results of the research refer to a single case, they are consistent with the observations of the researchers in [25,43,78–83], who also emphasize the importance of the above-mentioned motivators and their relationship with the effectiveness and commitment of employees.

In connection with the discussion and the research results obtained, IT companies using an agile approach to project management should pay special attention to the compensation offered and the link between performance and payment to employees, as there was a relatively high percentage of dissatisfaction in compensation-related areas compared to the other questions. Moreover, employees should see a greater connection and link between performance and pay so that they feel more fairly rewarded and do not feel that low performance in the company is accepted. Measures should also be taken aimed at strengthening transparent communication and dialogue between employees and management. Providing employees with opportunities to perform interesting and challenging tasks and to pursue interesting projects in which they will have the opportunity to further their interests also contributes to increased efficiency and commitment.

## 6. Conclusions

The deductive approach adopted for the research results presented in this article has both theoretical and practical contributions. The contributions made to the literature focus on identifying the motivators influencing the commitment and effectiveness of agile teams. The practical implications, on the other hand, focus on realizing the article's overarching goal of conducting an analysis of the motivators that most influence the employee performance of agile project teams of an IT company, resulting in the identification of the seven factors that matter most to influence their effectiveness.

Considering the above, the novelty that the article brings to the literature is the recognition of significant motivators that allow a company to maintain or increase the efficiency and commitment of employees of agile teams.

Furthermore, the discussion and the research revealed that the use of agile team models and open innovation positively influences the efficiency and commitment of employees, especially in industries where a high level of innovation prevails. It should also be emphasized that definitely higher employee commitment and efficiency is obtained when there is clear and adequate evaluation system in the company, but also when open communication, cooperation, support and respect and recognition are promoted.

The obtained research results also emphasize the specific context of a software company operating with an agile approach to project management, which was particularly highlighted in important motivators from the point of view of employees. It should be emphasized here that the significance of the first three is consistent with generally accepted

motivators [79–82]. On the other hand, the next ones, covering team integration funding, supporting from the company with the responsibilities of personal life, and interest sections, reflect the specificity of the agile team.

We acknowledge the disadvantages of the research process, which mainly result from the decisions we have made regarding the methodological approach. First, the research was conducted on a single case of an IT company and compared with experts from other companies working in agile teams. Both the company and the respondents who took part in the research show work in both agile and open innovation models. Consequently, the research results obtained do not reflect the total state of the IT industry. Secondly, the relationship of efficiency and engagement with open innovation models was also not investigated.

Accordingly, it is recommended that more extensive research be conducted, both qualitative and quantitative, covering the impact of the open innovation model in terms of collaboration with the environment, knowledge transfer and absorptive capacity, and organizational maturity in terms of employee engagement and effectiveness.

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