

SITUATIONAL LEADERSHIP IN PROJECT MANAGEMENT: EMPIRICAL RESEARCH OF PROJECT MANAGERS

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Purpose: The goal of the study was to examine project managers ability to apply different styles of leadership depending on the project situation.

Design/methodology/approach: LEAD-Self questionnaires were used as the main research tool, which is based on the Model of Situational Leadership by P. Hersey and K. Blanchard. The tests were carried out in 12 production plants located in Poland, Italy, Spain, Turkey and China. The plants produce parts for household appliances, automotive and HVAC industries as well as intelligent power grids. 45 project managers participated in the study.

Findings: Research results indicate that project managers have a wide range of styles, yet their adaptability is low and moderate level. None of the surveyed project managers has a high level of adaptation. This means that the project managers participating in the study use only the basic leadership style and only occasionally use supporting styles.

Practical implications: Implications for organizations and project managers are given in the publication. The most important of them is training project managers in the field of situational leadership model and making managers aware of the strengths and weaknesses of each style, so that they are able to adapt them to the situation and to be ready to act by individual team members.

Originality/value: The publication refers to the issue of situational leadership in the context of project management, which broadens the knowledge of human resource management in project management, and highlights the importance of adapting the leadership style of a project manager to a specific situation. The publication can be valuable for organizations implementing industrial projects and for project managers themselves.

Keywords: leadership in project management, situational leadership, LEAD-self, project management, project manager.

Category of the paper: Research paper.

1. Introduction

Project management has gained recognition from many organizations and is increasingly seen as a basic skill in times of constant and rapid change. Due to the characteristics of projects, including their unique and remarkable nature, managers who direct such projects face various challenges. To face these challenges, they need excellent project management skills and leadership, recognized as one of the most important factors in successful project management. Leadership in this case can be seen as the art of influencing team members to achieve the desired project outcomes and the effective cooperation of an project team (Podgórska, 2022). In other words, it can be argued that leadership has a large impact on the entire project process, including the actions of others, as leaders guide the behaviour of others by setting a vision and direction for their actions.

Project managers have multiple roles to bring projects to completion within the triple constraints of: scope, time and budget, and to meet project quality requirements and stakeholder expectations. In order to be successful in project implementation, project managers must have a good understanding of how to use the tools and techniques for qualitative project management (PMBOK, 2017). However, project management is more than just applying technical skills to perform project work, such as planning, scheduling, budgeting and calculations, and working with numbers, templates and charts. Most importantly, project managers need to guide project team members, interact effectively, and influence others (Kerzner, 2006). Moreover, the project manager must show a special approach to building and maintaining relations within the team due to the temporary nature of the project and interpersonal relations – project completion involves termination of the project team and then moving on to a new project and a new team (Podgórska, Pichlak, 2019). Therefore, there is a wide range of skills that a project manager needs to develop and learn to use them in a timely manner. One of these key interpersonal skills is leadership, which undoubtedly must be mastered by project managers in order to achieve goals and be effective. Additionally, project managers' understanding of their own leadership style and the ability to predict team member's readiness to work are key in guiding people and projects (Kerzner, 2006).

It should also be emphasized that leadership is part of a much broader process that goes beyond the leader. It focuses on interacting with other people, including in particular project team members and their special characteristics (Forsberg, 2000). This method of researching leadership, developed by (Hersey, Blanchard, 1977) was applied in the Model of Situational Leadership. This model was used in this study to conduct empirical research. Situational leadership, with its emphasis on adaptability, offers profound benefits for organizations, managers and employees. Whether a more directive or supportive approach should be adopted depends on many different factors, including project goals, challenges faced by the team, and existing skill levels and experience of team members. Taking this into account, in this paper, the goal of the thesis was to examine the ability of project managers to apply different

styles of leadership depending on the situation/context of the project. In order to achieve the aim of the research, three following research questions were asked, i.e.:

1. Which leadership styles do project managers take as primary and which styles as supportive ones?
2. What is the ability of project managers to adopt different leadership styles?
3. To what extent does the behaviour of project managers meet the requirements of their colleagues regarding the problem or situation?

2. Theoretical background

Leadership is defined in many different ways. Leadership has been recognized in terms of leader traits (Bowden, 1927; Carlyle, 1841) and impact that these traits have on leadership effectiveness (Bingham, 1927; Kirkpatrick, Locke, 1991; Senior et al., 2012). The development in leadership research have had also an effect in terms of consideration of other aspects of leadership, such as: leaders behaviors (Fleishman et al., 1955; Likert, 1961; Blake, Mouton, 1985; Argyris, 1976; McGregor, 1964), situational moderator variables (Fiedler, 1964; Evans, 1970; Hersey, Blanchard, 1969, 1977; Yukl, 1971; Vroom, Yetton, 1973; Vroom, Jago, 1988), relationships between leader and followers (Greene, 1975; Hollander, 1979), emotional intelligence (Goleman et al., 2002), subordinates commitment (Field, 1989; Eden, 1984; Bass, 1985; Bass, Avolio, 1995) and finally with the competence of leaders (Kotter, 1990; Kouzes, Posner, 1998; Alimo-Metcalfe, Alban-Metcalfe, 2001; Dulewicz, Higgs, 2003; Podgórska, Pichlak, 2019). This article focuses on situational leadership.

2.1. The evolutionary model of P. Hersey and K.H. Blanchard

As leadership research has been conducted, researchers have come to the conclusion that the characteristics and behaviors of effective leaders, and even the mechanisms of influence they use, only partially explain why they were effective, as much depends on the situation in which they find themselves. This was the reason for undertaking research work as part of the situational approach to leadership (Paliszkievicz, 2019).

Situational leadership represents a significant departure from the mainstream behavioral concepts of leadership theories. Researchers such as F.E. Fiedler (1964), R.J. House (1977), V. Vroom and P. Yetton (1973) and P. Hersey and K.H. Blanchard (1977) suggested that effective leadership should be a function of the situation. Their approach reflects new theoretical models that emphasize the impact of a changing organizational situation on leadership behavior. These models state that a leader must adapt their leadership patterns and management style to the requirements of the situation. One of the most popular theories of situational leadership is the evolutionary model of P. Hersey and K.H. Blanchard (1977).

In 1969, P. Hersey and K.H. Blanchard published the Life Cycle Theory of Leadership (Hersey, Blanchard, 1969). They revised it, and in 1977 they published the Situational Leadership® Model (Hersey, Blanchard, 1977). Unlike other conditional theories, situational leadership is not called a theory by its authors because it does not try to explain why something is happening. However, other authors do call it a theory (Schermerhorn, 1997).

The primary conditional variable in situational leadership is the level of subordinates maturity. Leadership style depends on the behavior of the person trying to influence others. It includes directive (task) and supportive (relational) behaviors. **Directive behaviors** help group members achieve goals by providing guidance, setting goals and assessment methods, setting deadlines, defining roles, and showing how goals are to be achieved. The nature of directive behavior determines, often by means of one-way communication, what is to be done, how it is to be done and who is responsible for it. **Supportive behaviors** allow group members to feel good about themselves, their colleagues and the situation that has arisen. Supportive attitudes include two-way communication and reactions that show social and emotional support for other participants (Lussier, 2001).

Within the presented theory, leadership styles can be divided into four separate categories (Figure 1). The first style (S1) called directive style, the second style (S2) - coaching style, the third style (S3) is the supporting style, the fourth style (S4) is the delegating style.

The directive style (S1) is a style of a high level of compulsion and a low level of support. In this approach, the leader focuses communication on achieving goals and spends less time applying supporting activities. By applying this style, the leader communicates to his subordinates orders as to goals and ways of achieving them, and then carefully controls his subordinates. **The second - coaching style (S2)** is characterized by a high degree of directivity and a high degree of support. In this approach, the leader focuses communication on both achieving goals and satisfying the social and emotional needs of subordinates. The coaching style requires the leader to get involved in the matters of subordinates by encouraging them to act and soliciting their opinions. This style is an extension of the directive style (S1) as it still requires the leader to make the final decision as to what to do and how to do it to achieve the goal. Another style is **the supportive approach (S3)**, which requires the leader to adopt a style with a high level of support and a low level of directive. In this approach, the leader does not focus only on goals, but uses supportive behaviors that allow them to develop the skills of employees related to the task being carried out. Supportive style includes the ability to listen, praise, seek help, and provide feedback. A supportive leader often shows appreciation and offers support. **The delegating style (S4)** is not very supportive and directive style and consists in delegating tasks. In this approach, the leader communicates less information about the task and offers less support, which increases the confidence and motivation of employees in relation to the task. The delegating leader is less involved in planning, controlling details and clarifying goals. By agreeing within the group on what to do, they allow employees to take responsibility for carrying out the task as they see fit. A leader using the delegating style gives control to subordinates and refrains from unnecessarily intervening (Lussier, 2001).

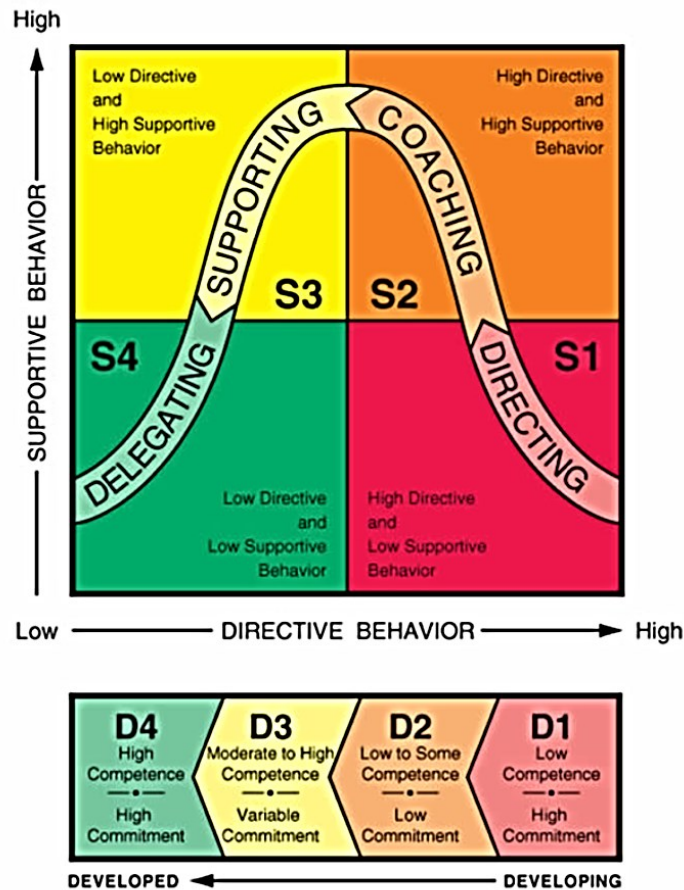


Figure 1. Model of situational leadership.

Source: Hersey, P.K., Blanchard, K. (2013). *Management of Organizational Behavior Utilizing Human Resources*. 10th edition. New Jersey: Prentice-Hall Inc.

The second important part of the situational leadership model concerns the level of development of subordinates. It means the degree to which subordinates have the appropriate competences and commitment necessary to perform the task. Regarding this, employees can be divided into four categories: D1, D2, D3 and D4, from low development to high development. D1 employees are characterized by low competences and high commitment. They are new to a given task and do not know exactly how to get it done, but they are excited about the challenge that comes with it. D2 employees are defined as people with certain competences, but low commitment. They started learning in a particular field, but lost some of their original motivation for work. D3 are employees who are moderately or highly competent, but may lack commitment. They have the necessary skills to do the job, but are not sure if they are capable of carrying out the task on their own. D4 employees are the most developed, having both a high level of competence and a high degree of commitment to the performance of a given task (Northouse, 2010).

According to P. Hersey and K. Blanchard's (Hersey, Blanchard, 1977) situational model, the choice of leadership style that should be applied to individuals or groups depends on the level of readiness of the people that the leader is trying to influence. When managers identify

the level of readiness of the person or group they want to influence, the key to effective leadership is to apply the right leadership style.

2.2. The role of leadership in project management

Leadership is an essential factor in successful project management. Changes taking place in the business world and in organizations require a re-evaluation of some issues, including the role of leadership. Leadership constitutes a fundamental role in interpersonal relationships and leadership is often associated with the success or failure of the project. Necessary knowledge, skills, qualifications and personal characteristics that is, competences, ensure the successful implementation of projects thanks to making the right decisions at the right time. The primary function of leadership is to make changes and set directions for action in the face of change, which is not similar to planning or directing (Nixon et al., 2012).

Project management literature emphasizes the importance of leadership as a necessary precondition for project implementation and as a means of motivating people to change which has an impact on the overall quality of the project. Project team members led by strong leadership, held by project managers, contribute to the success of the project. They show great dedication, commitment and an attitude towards achieving the project's goals. Leadership motivates team members to ensure that project outcomes are improved by achieving higher outcomes. One of the key principles of leadership is transforming project managers into leaders by making them more effective (Shenhar, 2004).

Leadership is an effective tool used by the project manager and contributes significantly to improving project outcomes. Inadequate leadership skills are often associated with project failure. Project managers, who are leaders, formulate a clear vision of the project. They communicate this vision to the project team in order to create a project strategy that is linked with the business strategy (Baccarini, 1999). Leaders need to build awareness and trust among the team in order to feel that they play a fundamental role in the success or failure of the project. They give others a sense of security and predictability, mobilize people and focus their energy around what is important. A strong leader and strong leadership mean setting a clear vision, setting a clear course of action and setting goals that are achieved together by the team (Curran et al., 2009).

It can be concluded that leadership is becoming more and more essential to the effectiveness of business outcomes and project success. Strong leadership and effective management are essential in organizations to achieve the highest possible effectiveness of implemented projects, because managers with appropriate qualifications are not able to guarantee the organization of effective leadership (Lunenburg, 2011). In summary, leaders deal with change by creating a vision, setting direction, building motivation and inspiration. Managers deal with introducing some order and consistency by organizing, planning and budgeting. The combination of these features can contribute to more effective project management.

3. Methods

Quantitative research was carried out using the diagnostic survey method with the questionnaire technique. The study was conducted online using MS Forms software. The questionnaire was prepared in two languages i.e. Polish and English. The access path to the questionnaire was sent via e-mail with a request to complete the survey and information about anonymity and the purpose of the survey. The questionnaire used for the study had a bipartite structure.

The first part of the questionnaire is the Leader Effectiveness and Adaptability (LEAD – self assessment) questionnaire by Hersey-Blanchard. It includes 12 situational questions where the respondent is asked to assume the role of a leader and putting themselves in the situations described in order to identify with them as much as possible. The respondents mark 1 out of 4 answers which, in their opinion, will be consistent with their actions on the situation (LEAD, 1993). The questionnaire was developed to enable leaders to self-assess their leadership styles and assess their adaptability. This tool is used to assess the leader's perception of how he responds to certain scenarios as a situational leader. P. Hersey and K. Blanchard based the questionnaire on three characteristics: leadership styles, range of styles and adaptability to a given style.

Leadership style refers to the consistent behavior patterns that leaders evince. The reading of the base style, supporting style (s) and style range is done in table 1. **The base** (primary) **style** is indicated by the cell in the "Sum" row with the highest score. **The supporting** (minor) **style** indicates a cell in the "Sum" row where the sum of the responses is two or more.

The range of styles is the leaders basic leadership style along with any other supporting styles that define their ability to use a variety of styles. **The range of styles** determines how flexibly one can change the way of approaching their actions in an attempt to influence others. Three or more answers in the "Sum" row (Table 1) indicate a high degree of flexibility in the application of certain behaviors. Two answers in the line "Sum" represent moderate flexibility. One answer is not statistically significant (low elasticity) as it is difficult to predict flexibility in this style (LEAD, 1993).

Table 1.

The key to identifying the primary and secondary leadership styles

		The range of styles			
		S1 (Directive)	S2 (Coaching)	S3 (Supportive)	S4 (Delegating)
Situation	1	A	C	B	D
	2	D	A	C	B
	3	C	A	D	B
	4	B	D	A	C
	5	C	B	D	A
	6	B	D	A	C
	7	A	C	B	D
	8	C	B	D	A
	9	C	B	D	A
	10	B	D	A	C
	11	A	C	B	D
	12	C	A	D	B
The sum					
	S1 - directive	S2 - coaching	S3 - supportive	S4 - delegating	

Source: LEAD: Self Leadership Style/perception of Self, Center for Leadership Studies, 1993, pp. 1-4.

Adaptability of style is the degree to which a leader's behavior matches the demands of his colleagues in relation to a problem or situation (Hersey, Blanchard, 1977). **Style adaptability** is determined by scoring according to the key in Table 2. Points are awarded for each alternative action selected in response to the twelve situations outlined in the LEAD-self questionnaire. The number of awarded points depends on how well the chosen alternative action fits the situation. The number "3" indicates "best match" and the number "0" indicates that an alternative operation with a very low probability of success was selected. The use of a point system enables the expression of the adaptability of the leadership style in numerical form. This result ranges from 0 to 36 points. A numeric expression enables performing comparative analysis based on a range pattern of numeric values (LEAD, 1993).

Table 2.

The key to scoring the ability to adapt the leadership style

		Adaptability			
		The probability of success			
		A	B	C	D
Situation	1	3	1	2	0
	2	3	0	2	1
	3	2	1	0	3
	4	2	0	3	1
	5	0	2	3	1
	6	1	2	0	3
	7	0	3	1	2
	8	3	1	0	2
	9	0	2	3	1
	10	2	0	1	3
	11	0	3	1	2
	12	1	3	0	2
The sum					
	The sum A; B; C; D				

Source: LEAD: Self Leadership Style/perception of Self, Center for Leadership Studies, 1993, pp. 1-4.

Scores from 30 to 36 points indicate a leader with a high degree of adaptability. Such a leader accurately diagnoses the possibilities and readiness of his co-worker to act in a given situation and adjusts to it accordingly. A score in the range of 24-29 points reflects a moderate degree of adaptability. Scores in this range typically indicate a distinct primary leadership style with less flexibility in supportive styles. The number of points below 23 indicates the need for self-development. This result proves the inability to diagnose the readiness of group members to perform a task. Such a leader cannot apply the appropriate leadership behavior (LEAD, 1993).

The second part of the questionnaire is the metric in which the respondent is asked about age, gender, education, experience as a project manager, area of project application and possessed certification. The classification of project types and their application was determined on the basis of the division according to D. Lock, i.e. engineering projects (e.g. construction, petrochemical, mining), production projects (e.g. research and development of new products; production of equipment/parts for automotive or domestic applications), IT projects and projects related to management of change and research projects (Zaskórski et al., 2015).

3.1. Sample

The tests were carried out in 12 production plants located in Poland, Italy, Spain, Turkey and China. The plants produce parts for household appliances industry (parts for dishwashers, washing machines, refrigerators), automotive (switches, control panels, car chargers), HVAC (heating, air conditioning, ventilation) and intelligent power networks (Smart Grid). The study included 48 project managers. On average, there were 3-5 people per plant. The required minimum number of people in the study was determined using the sample selection calculator¹. Assuming the confidence level of 95%, the fraction size of 0.5 and the maximum error of 5%, the minimum number of people in the study is 43 project managers.

45 project managers participated in the study, 15 of whom are women (which constitutes 33,33% of the respondents), and 30 people are men, which constitutes 66,67% of the studied population. The study sample was divided according to age. Most of the respondents were in the group aged 30 to 39 (40,00%). There were 7 women in this group (15,56% of the respondents) and 11 men (24,44% of the surveyed population). The second largest group was the age group from 40 to 49 (37,78%), with 5 women (11,11% of the study population) and 12 men (26,67% of the respondents). The next age group are respondents under 30 (11,11%). There were 2 women in this group (4,44% of the respondents) and 3 men (6,67% of the studied population). In the age group from 50 to 59 there were only 4 men (8,89% of the respondents). The last and least numerous group are respondents aged over 60 (2,22%). This group consisted of only one person and it was a woman (2,22% of the respondents). The above data is presented in Table 3.

¹ <https://www.naukowiec.org/dobor.html>, 6.01.2022.

Table 3.*Characteristics of the studied sample according to the respondents age*

Age range	Women (W)	% Women	Men (M)	% Men	Sum	Percent (W+M)
< 30	2	4,44%	3	6,67%	5	11,11%
30-39	7	15,56%	11	24,44%	18	40,00%
40-49	5	11,11%	12	26,67%	17	37,78%
50-59	0	0,00%	4	8,89%	4	8,89%
> 60	1	2,22%	0	0,00%	1	2,22%
Total:	15	33,33%	30	66,67%	45	100%

Source: Own study based on quantitative research.

The criterion for dividing the research sample was also education. More than a half, because 24 people (53,33%) had a Master's degree, including 7 women (15,56% of the respondents) and 17 men (37,78% of the respondents). Incomplete higher education is a group of 16 people (35,56%), of which 7 are women (15,56% of the respondents) and 9 people are men (20,00% of respondents). The least numerous group are the respondents with secondary education, i.e. 5 people (11,11%), including 1 woman (2,22% of respondents) and 4 men (8,89% of respondents). None of the respondents declared a doctoral degree.

The sample was then divided according to experience as a project manager. Experience of less than 1 year was declared by 1 person (2,22% of respondents). 10 people (22,22% of respondents) had experience from 1 to 3 years.

Experience from 3 to 5 years was declared by 9 respondents (20,00%), while 14 respondents (31,11%) showed experience from 5 to 10 years.

The sample was also divided according to the type of project, taking into account the criterion of project application. The obtained results indicate that 36 respondents declared managing production projects (80,00% of respondents), the remaining 9 people indicated IT projects (20,00% of respondents). Engineering and scientific projects have not been declared.

The project management certification was also the criterion for dividing the research sample. 21 respondents (46,67% of the respondents) indicated the answer confirming their certification in the field of project management. The remaining 24 respondents (53,33% of the surveyed population) do not have certification in the field of project management. The most common certificate in the field of project management was Prince2 Foundation, owned by 14 respondents (31,11% of respondents). Another certificate is PMI PMP, owned by 10 respondents (22,22% of the population). AgilePM Foundation was indicated by 4 respondents (8,89% of respondents), while the IPMA D certification was indicated by 3 respondents (6,67% of respondents). 2 people have the Price2 Practitioner certification (4,44% of the respondents). The least frequent certification in the surveyed population was AgilePM Practitioner - 1 person (2,22%) and IPMA C - 1 person (2,22%). In the surveyed population, project managers often showed more than one certificate in project management. 5 respondents showed two certificates up (11,11% of respondents), 3 certificates were shown by 2 respondents (6,67%), and 4 certificates were shown by 1 respondent (2,22% of respondents).

4. Results

Results concerning the participants' perceptions of leadership styles in terms of the primary and secondary styles are presented in Figure 2. The dominant primary style, which the respondents use most often, is the coaching style (S2 - high level of directivity, high level of support). This group included 71,11% of the respondents. The second most frequent choice is the supporting style (S3 - low level of directivity, high level of support). In this case, it is 17,78% of the respondents. The third primary style is the delegating style (S4 - low level of directivity, low level of support) with the result of 6,67% of the respondents. The last one and at the same time the least numerous primary leadership style studied among the respondents is the delegating style (S1 - high level of directivity, low level of support), which is used by 4,44% of the surveyed population. The secondary style most frequently used by the respondents is directive behavior (S1 - high level of directivity, low level of support) and supportive style (S3 - low level of directivity, high level of support), which is indicated by 38,67% of the respondents. The secondary delegating style (S4 - low level of directivity, low level of support) is used by 13,33% of respondents, while 9,33% of respondents define their secondary style as delegating.

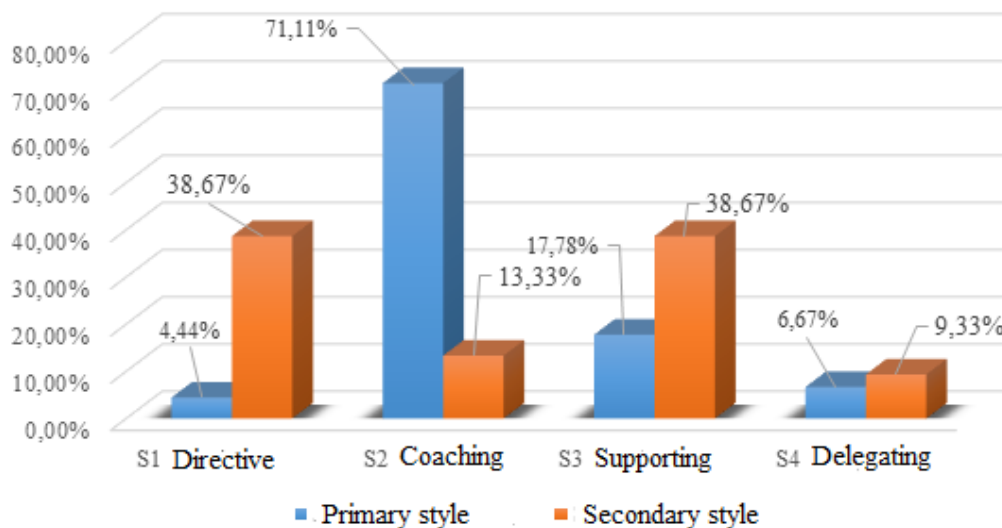


Figure 2. Characteristics of the studied sample due to the primary and secondary leadership style.

Source: Own study based on the results of quantitative research.

From the data presented in Fig. 2, it can be concluded that the leading primary style is the coaching style (S2). The supporting styles with the highest response rate are the directive style (S1) and the supporting style (S3). These are the most frequently shown styles for which the same result was achieved, i. e. 38,67%.

On the basis of the obtained results, it is also possible to distinguish two pairs of styles that were most often used by the respondents. The first pair of styles that can be distinguished are the coaching (S2) and the directive (S1) styles. The S2 and S1 style profile is effective for low to medium readiness. Leaders using these styles are often unable to fully develop the potential of group members. This is until they have mastered the ability to properly use the supporting (S3) and delegating (S4) styles.

The second pair of styles shown in the study are coaching (S2) and supportive (S3) styles. People with dominating S2 and S3 styles tend to be good at working with people with an average level of readiness. On the other hand, they have difficulty coping with disciplinary issues and workgroups with a lower level of readiness, as well as delegating tasks to competent people to maximize their development. These are perfect styles for working with people with an average level of readiness. If leaders with this profile want to maximize their potential, they must learn to use the S1 and S4 styles if necessary. In total, 86,7% of respondents most often used these pairs of leadership styles, i.e. S2 and S1 as well as S2 and S3.

The scope of the styles is presented in Fig. 3. The scope of the three leadership styles is used by 53,3% of the respondents. Two leadership styles are used by 33,3% of respondents. The range of four styles uses 11,1% and 2,2% only one leadership style. It can therefore be concluded that most of the respondents have a wide range of leadership styles.

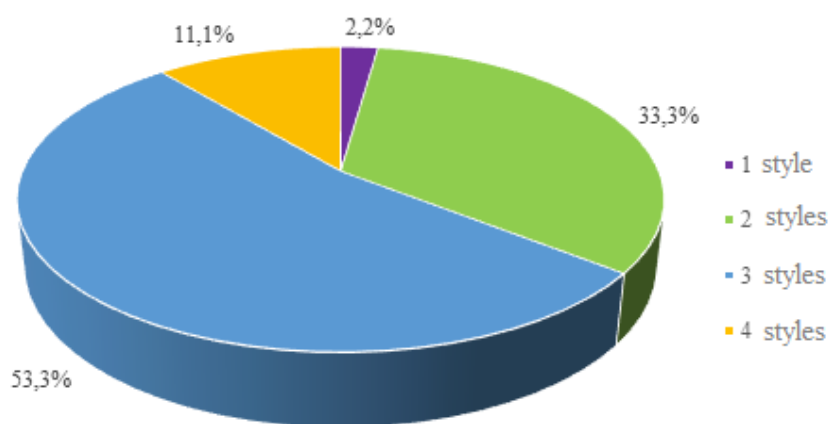


Figure 3. Characteristics of the studied sample in terms of the scope of application of leadership.

Source: Own study based on the results of quantitative research.

The next step in the analysis is to determine the flexibility of using leadership styles. Fig. 4 shows the results of the performed analysis. As can be seen, the coaching style (S2) shows the highest level of flexibility. High flexibility for this style is demonstrated by 89% of the respondents, moderate flexibility - 9% of the respondents, while low flexibility (statistically insignificant result) is shown in the analysis by 2% of the respondents. The second leadership style in terms of high flexibility is the supportive style (S3) - ie 58% of the respondents from the surveyed population. 29% of the studied population shows moderate flexibility and 13% of

the study population - low. Another analyzed leadership style is the directive style (S1). High flexibility for this style is indicated by 40% of respondents, moderate - 31%, and low - 29%. The last style is the delegating style (S4). High flexibility for this style is indicated by 9% of the respondents, moderate - by 13% of the respondents, and low flexibility - by 78% of the respondents in the surveyed population.

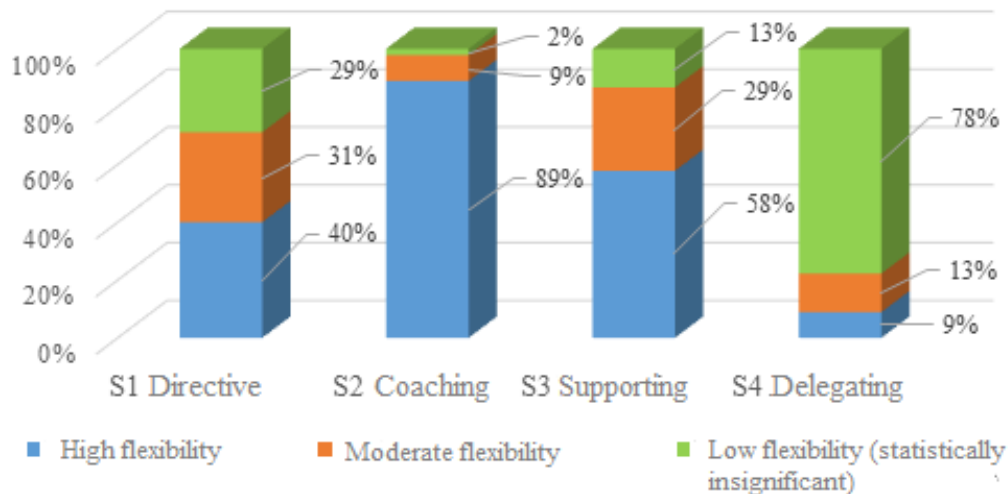


Figure 4. Characteristics of the studied sample due to the flexibility of using leadership styles.

Source: Own study based on the results of quantitative research.

The ability to adapt the style, i.e. the degree to which the leaders behavior meets the requirements of their colleagues in relation to a problem or a given situation, is presented in Fig. 5.

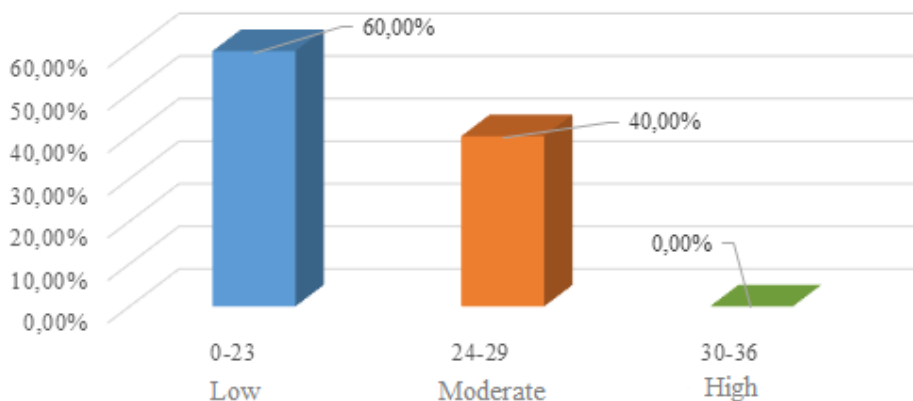


Figure 5. Characteristics of the studied sample in terms of the ability to adapt leadership styles.

Source: Own study based on the results of quantitative research.

As can be seen from the chart above, 60,00% of the respondents showed a low level of adaptation of leadership styles, 40,00% of the respondents showed a moderate degree of adaptation, while none of the respondents showed a high level of adaptation of leadership styles.

5. Discussion

The article posed three research questions. The first concerned the leadership styles that project managers adopt as primary and supportive styles. The second was related to the ability of project managers to apply different leadership styles, and the third related to the extent to which project managers' behavior corresponded to the requirements of their colleagues in a given situation.

Answering the first question, it can be indicated that in the studied group of project managers, the basic style of leadership, i.e. the behavior pattern that is most often used when trying to influence the actions of others, is the coaching style (S2), which was demonstrated by 71.11% of the respondents. According to K. Blanchard, this leadership style is characterized by the presence of both task-related and relational behaviors at an above-average level (Hersey, Blanchard, 2013). The coaching style is especially effective when colleagues are motivated to act but need a lot of guidance. It can be concluded that the coaching style is recommended primarily for team members who want to learn. As secondary leadership styles, the respondents used the directive style (S1) and the supportive style (S3). Both styles achieved the same result, i. e. 38,67% of the respondents.

On the basis of the obtained results, it is also possible to distinguish two pairs of styles that were most often used by the respondents. The first pair of styles that we can isolate are the coaching (S2) and the directive (S1) styles. People who mainly use these two styles tend to increase and decrease their support for subordinates. This trend also applies to relationship-building behaviors. Leaders feel uncomfortable if it is not them who "make the decisions". Based on the research of K. Blanchard, it was found that this style profile is characteristic for engineers who have been promoted to a managerial position, but are reluctant to quit engineering work (Hersey, Blanchard, 2013). It can also be pointed out that this is often a very effective style for people working in a manufacturing company where managers are under a lot of time pressure, and also in crisis situations where time is a very limited resource. The second pair of styles shown in the study were coaching (S2) and supportive (S3) styles. People representing S2 and S3 styles tend to be good at working with those of an average level of readiness. On the other hand, they find it difficult to deal with disciplinary issues and workgroups with a lower level of readiness, as well as delegating tasks to competent people to maximize their development. According to research, this style is most often identified in the United States and other countries with a high level of education and industrial experience. A leader with S2 and S3 styles is usually more effective than other leaders (Hersey, Blanchard, 2013).

Regarding the second question, the research showed that leaders differ in their ability to differentiate their leadership style in different situations. Some leaders are limited to one basic style - 2.22% of those surveyed. These leaders are only effective when their style is compatible

with their surrounding. 11.1% of respondents are able to modify their behavior to fit each of the four basic styles. Three styles are used by more than half of the respondents, i.e. 53.3%, and two styles are used by 33.33% of the respondents. It can therefore be concluded that a small group of respondents uses all four leadership styles. Most of the respondents show the ability to use three leadership styles. This indicates the need to improve the surveyed project managers in terms of the possibility of using several styles by them, as flexible leaders, i.e. leaders with a wide range of styles, have the potential to be effective in many situations. It is desirable that leaders have and know how to use as many styles as possible. People who have a narrow range of styles can be successful for a long time if left in situations where their style is likely to be successful. Conversely, people with a wide range of styles may be ineffective if their behavior does not meet the demands of the situation.

However, the scope of styles is not as important for effectiveness as the ability to adapt it, which was included in research question 3. In this context, research has shown that 60% of project managers have a low degree of adaptation to leadership styles. This means that leaders are not able to diagnose subordinates' readiness to perform a task and to apply appropriate leadership behaviors. They only use a basic leadership style. 40.00% of the respondents showed a moderate degree of adaptability. These leaders typically exhibit a distinct mainstream leadership style with less flexibility in supportive styles. In the surveyed group of project managers nobody showed a high degree of adaptation. This may indicate that leaders are misdiagnosing opportunities and readiness of their co-worker to act. They cannot adapt properly to the situation, so their effectiveness may be low. The leader's diagnostic ability is the key to adaptability. These results are supported by research conducted by K. Blanchard in the Center of Leadership Studies, which showed that only few leaders are able to learn to apply all four basic styles of leadership (Hersey, Blanchard, 2013).

6. Conclusion

This article contributes to the literature on project management in the field of human resource management and from the perspective of organizations implementing industrial projects, thus extending the theory of project management and developing an argument for greater emphasis on the use of situational leadership by project managers. In practice, the article responds to the needs of companies to reflect on the desired competences of project managers implementing industrial projects. The obtained results are therefore the basis for identifying the following recommendations both for project managers and for the organization that implements the projects.

As for the organization, the following recommendations are proposed: (1) organizations implementing projects in the industrial field should focus on training project managers in the concept of situational leadership, which will allow them to manage a project team more effectively tailored to the situation and to the readiness of individual team members, (2) organizations should consider introducing competency situational tests for candidates for the position of a project manager, and (3) organizations should secure financial resources enabling them to implement the concept of situational leadership in project management, including in particular training and competency tests.

As far as project managers are concerned, the following recommendations are proposed: (1) making project managers aware of the strengths and weaknesses of each leadership style, which will allow them to increase the scope of the styles, increase the ability to adapt the leadership style to changing situations and assess the readiness of the co-worker, (2) it is important that there is direct interaction of project managers with members of their teams, which will allow them to get to know their colleagues well enough to flexibly manage the constantly changing requirements of the organization, (3) making project managers aware that the ability to adapt the leadership style to a specific situation is one of the key success factors of each project.

References

1. Alimo-Metcalfe, B., Alban-Metcalfe, R.J. (2001). The development of a new Transformational Leadership Questionnaire. *Journal of Occupational and Organizational Psychology*, Vol. 74, pp. 1-27.
2. Argyris, C. (1976). Leadership, Learning and Changing the Status Quo. *Organizational Dynamics*, Vol. 4, pp. 29-43.
3. Baccarini, D. (1999). The logical framework method for defining project success. *International Journal of Project Management*, Vol. 30, No. 4, pp. 30-31.
4. Bass, B.M. (1985). *Leadership and Performance beyond Expectations*. New York: Free Press.
5. Bass, B.M., Avolio, B.J. (1995). Individual consideration viewed at multiple levels of analysis: A multi-level framework for examining the diffusion of transformational leadership. *The Leadership Quarterly*, Vol. 6, pp. 199-218.
6. Bingham, W.V., Davis, V.T. (1927). Leadership. In: H.C. Metcalf (Ed.), *The Psychological Foundations of Management* (pp. 56-74). New York: Shaw.
7. Blake, R.R., Mouton, J.S. (1985). *The Managerial Grid*. Houston: Gulf Publishing Company.

8. Bowden, A.O. (1927). A study on the Personality of Student Leadership in the United States. *Journal of Abnormal and Social Psychology*, Vol. 21, pp. 149-160.
9. Carlyle, T. (1841). *Heroes and Hero Worship*. Boston: Adams.
10. Curran, C.S., Niedergassel, B., Picker, S., Leker, J. (2009). Project leadership skills in cooperative projects. *Management Research News*, Vol. 32, No. 5, pp. 460-462.
11. Dulewicz, V., Higgs, M. (2003). Design of a new instrument to assess Leadership Dimensions and Styles. *Henley Management College Working Paper Series HWP 0311*. UK: Henley Management College.
12. Eden, D. (1984). Self-fulfilling Prophecy as a Management Tool: Harnessing Pygmalion. *Academy of Management Review*, Vol. 9, pp. 64-73.
13. Evans, M.C. (1970). The effects of Supervisory Behavior on the Path-goal Relationship. *Organizational Behavior and Human Performance*, Vol. 5, pp. 277-298.
14. Fiedler, F.E. (1964). A contingency model of leadership effectiveness. In: L. Berkowitz (Ed.), *Advances in Experimental Social Psychology* (pp. 149-190). New York: Academic Press.
15. Field, R.H.G. (1989). The Self-fulfilling Prophecy Leader: Achieving the Metharme Effect. *Journal of Management Studies*, Vol. 26, pp. 151-175.
16. Fleishman, E.A., Harris, E.F., Burt, H.E. (1955). *Leadership and Supervision in Industry*. Columbus, Ohio.
17. Forsberg, K. (2000). *Visualizing project management 2nd edition*. New York: John Wiley & Sons, Inc.
18. Goleman, D., Boyatzis, R., McKee, A. (2002). *The New Leaders*. Boston: Harvard Business School Press.
19. Greene, C.N. (1975). The Reciprocal Nature of Influence between Leader and Subordinate. *Journal of Applied Psychology*, Vol. 60, pp. 187-193.
20. Hersey, P., Blanchard, K.H. (1969). Life cycle theory of leadership. *Training Development Journal*, Vol. 23, pp. 26-34.
21. Hersey, P., Blanchard, K.H. (1977). *Management of Organizational Behavior: Utilizing Human Resources*. NJ: Prentice-Hill, Englewood Cliffs.
22. Hersey, P., Blanchard, K.H. (2013). *Management of organizational behavior: utilizing human resources. 10th edition*. New Jersey: Prentice Hall, pp. 304-314.
23. Hollander, E.P. (1979). *Leadership Dynamics: A Practical Guide of Effective Relationship*. New York: Free Press.
24. House, R.J. (1977). A 1976 theory of charismatic leadership. In: J.G. Hunt, L.L. Larson (eds.), *Leadership: The cutting edge*. Carbondale: Southern Illinois University Press.
25. Kerzner, H. (2006). *Project management a systems approach to planning, scheduling, and controlling, 9th edition*. New Jersey: Wiley & Sons.
26. Kirkpatrick, A.S., Locke, A.E. (1991). Leadership: do traits matter? *Academy of Management Executive*, Vol. 5, pp. 48-60.

27. Kotter, J.P. (1990). What leaders really do. *Harvard Business Review*, Vol. 68, pp. 103-111.
28. Kouzes, J.M., Posner, B.Z. (1998). *Encouraging the heart*. San Francisco: Jossey-Bass.
29. LEAD: Self Leadership Style/perception of Self (1993). Center for Leadership Studies.
30. Likert, R. (1961). *New Patterns of Management*. New York: McGraw-Hill.
31. Lunenburg, F.C. (2011). Leadership versus Management: A Key Distinction — At Least in Theory. *International Journal Of Management, Business And Administration*, Vol. 14, No. 1, pp. 1-4.
32. Lussier, R.N. (2001). *Leadership theory application skill building*. Cincinnati: South-Western College Pub.
33. McGregor, D. (1964). *Leadership and Motivation*. Cambridge, Massachusetts: MIT Press.
34. Nixon, P., Harrington, M., Parker, D. (2012). Leadership performance is significant to project success or failure: A critical analysis. *International Journal of Productivity and Performance Management*, Vol. 61, No. 2, pp. 205-206.
35. Northouse, P.G. (2010). *Leadership theory and practice, 5th ed.* Thousand Oaks: SAGE Publication Inc.
36. Paliszkievicz, J. (2019). *Przywództwo, Zaufanie i Zarządzanie Wiedzą w Innowacyjnych Przedsiębiorstwach*. Warszawa: CeDeWu.
37. PMBOK® Guide, 6th Edition (2017). Pennsylvania.
38. Podgórska, M. (2022). Challenges and Perspectives in Innovative Projects Focused on Sustainable Industry 4.0—A Case Study on Polish Project Teams. *Sustainability*, Vol. 14, No. 9, 5334.
39. Podgórska, M., Pichlak, M. (2019). Analysis of project managers leadership competencies. Project success relation: what are the competencies of polish project leaders? *International Journal of Managing Projects in Business*, Vol. 12, No. 4, pp. 869-887.
40. Senior, C., Martin, R., Thomas, G., Topakas, A., West, M., Yeats, M.R. (2012). Development stability and leadership effectiveness. *The Leadership Quarterly*, Vol. 23, pp. 281-291.
41. Shenhar, A.J. (2004). Strategic Project Leadership Toward a strategic approach to project management. *R and D Management*, Vol. 34, No. 5, pp. 569-578.
42. Schermerhorn, J.R. (1997). Situational Leadership: Conversations with Paul Hersey. *Mid-American Journal of Business*, Vol. 12, No. 2, p. 6.
43. Vroom, V.H., Jago, A.G. (1988). *The New Leadership: Managing Participation In Organizations*. New Jersey: Prentice-Hall.
44. Vroom, V.H., Yetton, P.W. (1973). *Leadership and Decision-Making*. PA: University of Pittsburgh Press.
45. Yukl, G.A. (1971). Toward a Behavioral Theory of Leadership. *Organizational Behavior and Human Performance*, Vol. 6, pp. 414-440.
46. Zaskórski, P., Woźniak, J., Szwarz, K., Tomaszewski, Ł. (2015). *Zarządzanie projektami w ujęciu systemowym, wyd. II*. Warszawa: WAT.