THE IMPACT OF TEAM MEMBER BEHAVIOURS ON PROJECT EFFECTIVENESS

Katarzyna Piwowar-Sulej

Introduction

It is very common nowadays to introduce organisational changes, improve products, and create and implement innovations in the form of projects. The project is defined as "an endeavour planned for a certain period of time that aims at achieving certain results within a specified time scope" [Young, 2006, p. 21]. With an increasing number of projects carried out in organisations on an everyday basis a need for finding new ways of boosting project effectiveness has arisen. In such organisations project management methodology is being implemented in order to arrange and standardise processes involved in the project life-cycle.

In scientific literature one can find a number of publications on the problems of defining project effectiveness and efficiency [Baccarini, 1999, p. 25; Wąsowicz 2009, p. 359; Piwowar-Sulej, 2011, pp. 38-44; Mierzwińska, 2013, pp. 219-221; Lichtarski, 2013, pp. 262-273]. It is assumed that an effective project is one that, above all, meets established expectations (cost, deadline and the quality of the final product).

Not only is project management treated as a science, but also as an art. The scientific aspect of project management is quite easy to master, as it mostly requires learning the aforementioned methodologies. The art is to create a model of effective communication and atmosphere of cooperation based on trust, integration and honesty. In other words the art is to manage the project team (See [Walker, Peterson, 2001, p. 17]). F. O'Connell [2009, p. 77] puts managing people at the top of the list of project manager's activities.

The word „group" is a more accurate term than "team" when referring to a certain number of people directly involved in an project. Thus, E. Schein defines the group as the number of people who are psychologically aware of each other and connected by mutual interactions. Additionally, they also perceive themselves as a group (As cited in: [Kożusznik, 2005, p. 15]). Nevertheless, for stylistic reasons, and due to the practice of using the word "team" in publications in the field of project management, the terms "team" and "group" are considered synonymously.

A project team consists of experts from various fields, often employed on the basis of different forms of contracts, who carry out their work either as part-time or full-time employees. In literature on project management the competencies of project management team members are described widely (See e.g. [Trocki, Grucza, Ogonek, 2003, p. 96; Lock, 2009, p. 74; Melnic, Puiu, 2011, p. 477]). Special attention is paid to their knowledge, skills and experience. Nevertheless, it is worth mentioning that each project involves a certain dose of uniqueness and uncertainty. Therefore, it is difficult to determine a universal list of competencies of project team members.

Undoubtedly, particular behaviours in human beings can be related to types of personality and shaped by experience and the process of socialization. Human behaviour is defined as a coordinated action taken in a particular environment at a specific point in time. Behaviour can be reactive or intentional [Porta, 2008, p. 157]. Freud's theory assumes that human behaviour is the result of a conflict between the id, ego and superego, where the ego represents the rational mind, id – self-centred mind (striving for pleasure) and super-ego – an internalized set of cultural rules (As cited in: [Baran, Davis, 2007, pp. 94-95]).

In literature describing teamwork various types of team member behaviours are presented, which was found worth being referred to while conducting research on the work in projects. Managing a project team lies within the responsibilities of a project manager. Nowadays, due to the increasing popularity and diversity of projects, anybody can become a project manager, e.g. product manager, product engineer, marketing specialist, HR specialist. The aforementioned people should be aware that apart from knowledge, skills and experience, there are other features of project team members that do influence the overall effectiveness of a project.

This article aims at presenting the issue of possible relations between behavioural types and project effectiveness by answering the research questions specified below:

1. What are types of team member behaviours?
2. How do particular types of team member behaviours influence the overall type of team behaviour?
3. What type of team behaviour ensures achieving project objectives?

For the purpose of this paper literature studies were conducted in fields of psychology and team management (including management of project teams). Moreover, the secondary and primary research results which involve teamwork effectiveness were utilised. Since behaviour can be regarded as a cultural artefact, the author has also referred to results of empirical research conducted on types of organisational culture favourable to project management. The research project was financed by the National Science Centre Poland (DEC-2013/09/D/HS4/00566).

Types of human behaviours in a team

Behaviour is said to be "the link between what we want to achieve and what we get" [Gillen, 2002, p. 7]. Most often people behave instinctively in accordance with habit, and when it ceases to be effective, they rarely think about changing it [Gillen, 2002, p. 8]. According to R.M. Belbin [2003, p. 48] behaviour of people in a group is affected by:

a) personality,
b) mental capacity,
c) current values and motivations,
d) external limitations,
e) experience,
f) learning a role.

In the group process there are three types of human behaviour, i.e. self-oriented, interaction-oriented and task-oriented. The characteristics of the behaviours mentioned above are shown in Table 1. Typically, one of these types of behaviour is dominant within an individual. None of the trends in the behaviour is either positive or negative in its nature. Nevertheless, depending on the situation, a specific type of behaviour may have a positive, negative or neutral influence.

Firstly, work in a project team for a self-oriented person can be an important step in personal development, which should be followed by starting to perceive the team as a reference point. Secondly, interaction-oriented people can learn that conflicts do not have to lead to team disintegration. What is more, they discover that expressing one's anger and defending one's own rights can be more successful in solving a problem than a prematurely offered compromise. Thirdly, task-oriented people while involved in teamwork can get familiarised with the group processes and the importance of interpersonal relationships, communication and feedback.

A team balanced properly in terms of skills, experience, personality and behaviour is the basis for effective teamwork. Nevertheless, in practice it is difficult to provide a multi-dimensional equilibrium in each team. The predominant types of individual behaviour are turned into the dominant type of behaviour in a team (called by the author, the type of team behaviour). For example, if task-oriented behaviours are dominant within the individuals of a particular group then the team behaviour is also classified as task-oriented. In the following part of this article a relationship between a type of team behaviour and achieved results will be described.

The impact of predominant behavioural types of individuals on achieved teamwork results

Traditionally a team, in which one of the aforementioned types of behaviour is predominant, would not be successful. The team leader's job was to restore the balance between these tendencies, both in the team as a whole and within its individual members. "Behaviour Management" in the traditional approach would require the following actions from the project manager [Bożek, 2010]:

- In the case of strong self-orientation an intervention should focus on showing that involvement of a particular person in the project is important. The other team members are equally competent and they also greatly contribute to the project. To prevent the domination of the discussion by one or several persons, the leader may, for example, limit the duration of their contribution in advance.

Table 1. Characteristics of behaviour of individuals in a project team

Self-oriented behaviour	*Interaction-oriented behaviour*	*Task-oriented behaviour*
• healthy selfishness; • willingness to take risks; • courage to express beliefs, even ones that are unpopular and inconsistent with the opinion of the majority; • self-confidence; • motto: if my ideas are implemented, we will achieve optimal results; • dominating discussions; • high willingness to represent the team and its performance outside the team; • a strong need for recognition.	• ensuring that all members are involved; • facilitating cooperation and emphasising common issues; • paying attention to the atmospherical changes in the team; • eagerness to look for compromise; • restoring harmony in a team is more important than achieving a good result; • underestimation of the importance of productive conflicts; • not paying attention to needs and negative feelings.	• a strong focus on completing tasks; • organisation of work processes; • taking care of flow of the professional information; • accurate description and summarization of substantive issues; • ignoring relationships, dynamic group processes and displaying affection.

Source: own study based on [Sikorski, 1999, p. 41; Bożek, 2010; Hallriegel, Slocum, 2008, p. 367]

• People with strong interaction-orientation should be encouraged by the leader to express their views and needs, and to confront them with the views of others. When the group is too focused on relationships it is the leader's role to remind them the objective of their gathering.

• In a team dominated by the strong task-orientation the team leader's role is to emphasise that good relationships and smooth cooperation are necessary to achieve the goals. Thus, the team leader should encourage team members to give feedback and ask others about their needs and feelings.

Taking all the above into consideration one should remember that negative reinforcement is much less effective than positive reinforcement. It is easier to modify a particular behaviour with a reward than a punishment [Kozielecki, 1998, p. 45].

As previously indicated team behaviours as well as individual behaviour of individuals can be interaction-, self- or task- oriented. Moreover, in the literature the two dimensions and the four basic styles of team functioning are distinguished (see Figure 1). The dimensions are as follows: "Results/Goals orientation" vs. "People orientation" and "Processes orientation" vs. "Tasks orientation", where [Report, 2010, p. 21; Łobocki, 2010, p. 32]:

a) Results orientation means focusing in particular on individual goals and monitoring their implementation. Competitiveness between the group members can be observed here.

b) People orientation is about paying attention to relationships within the team and the motivation of its members.

c) Processes orientation means organising the teamwork on the basis of clearly defined roles, structures and processes.

d) Tasks orientation involves an individual approach to the majority of tasks including the creation of new practices and allocating resources in accordance with current needs.

In addition to the four basic styles of team functioning mentioned above there are also mixed styles [Report, 2010, p. 21; Łobocki, 2010, p. 33]:

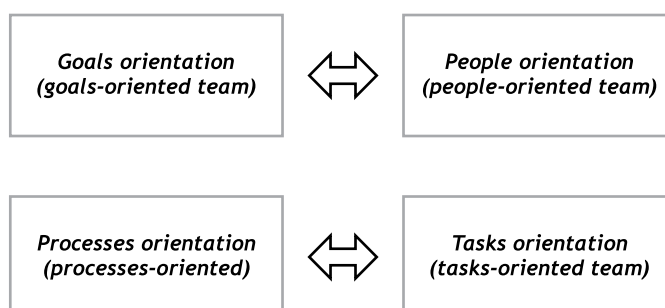• the team of organised producers – goals- and processes-oriented team,

Figure 1. The dimensions and basic styles of team functioning
Source: own study based on [Report, 2010, p. 21; Łobocki, 2010, p. 33]

- the team of independent hunters – goals- and tasks-oriented team,
- the corporate family — processes- and people-oriented team,
- the flexible team — people- and tasks-oriented team.

Finally, there are teams whose style of operation can be described as balanced as they preserve the equilibrium between the four poles of the specified dimensions. But is it really a recipe for the success of a project team?

Unfortunately, in English language publications on the subject of team and project management, the issue of the influence of behavioural types on team effectiveness is not taken into consideration, although many authors created lists of effective team characteristics. S.G. Cohen and D.E. Bailey [1997, p. 244] created a holistic model of factors of team effectiveness such as: task design, group composition, organisational context, psychological traits (e.g. cohesiveness), internal and external processes. E. McFadzean [2002, p. 465] believed that the appearance of a number of models of team effectiveness was indicative of a variety of variables such as personality, group size, work norms, status relationships, group structure etc. that can impact on team effectiveness and its measurement.

There are authors who focus on particular factors of team effectiveness (including project team) or its absence. For example R.M. Belbin ([1981, pp. 132-133] as cited in: [Senior, 1991, p. 245]) claims that each team needs an optimum balance in both functional roles and team roles. Team roles should be relevant to different stages of a team's project or other team's activities ([Belbin, 1993, pp. 100-101] as cited in: [Senior, 1997, p. 247]). According to J.R. Katzenbach and K.D. Smith [2001, p. 71] the main factor of team effectiveness is the focus on results. On the other hand, D. Miller [2010, p. 24] claims that team effectiveness is determined mainly by personal contribution to team potential. The contribution concerns personal attitude to teamwork and positive personal energy.

P. Lencioni [2002, pp. 188-189] describes five dysfunctions of teamwork which are: absence of trust, fear of conflict, lack of commitment, avoidance of accountability and inattention to results. Finally, C. Burton [1999, p. 46], K. Kendra and L.J. Taplin [2004, pp. 30-45] stress that project effectiveness (which is a result of project team's work) is mainly based on project manager's potential (including competencies and behavioural types). There are many characteristics of desirable project manager's competencies in the literature (For more see [Gehring, 2007, pp. 48-53; Geoghegan, Dulewicz, 2008, pp. 65-66]). Moreover, C.Sh. Burke et al. [2006, p. 299] shows that person-focused leadership correlates with perceived team effectiveness higher than task-focused leadership. Overall, it is important that project managers create a positive-emotional environment for effective team working [West, 2012, p. 61].

The results of the study "Your Team" conducted in Poland at the turn of 2009 and 2010 by AchieveGlobal [Report, 2010, pp. 21-22; Łobocki, 2010, p. 35] clearly shows that the teams judged as more effective are those that are people-oriented. Furthermore, the processes and tasks-orientation is not reflected in the team effectiveness according to the respondents' opinion. The survey was conducted among 300 members of different teams. A project team is a special kind of team, because projects can vary in terms of the aim, degree of complexity and time requirements. Projects are often implemented in different organisational (including cultural) conditions. Does it mean that an effective project team is always the one in which people-oriented behaviours are dominant?

The above question was addressed in structured direct interviews to 22 project managers working in different companies in Poland in 2012. This was a pilot research focused on identifying the mechanism of people management in project-oriented organisations as well as verifying the research tool (questionnaire). Other conclusions drawn from this research were presented by the author in previous publications (e.g. [Piwowar-Sulej, 2013, pp. 165-174]). The respondents were called upon to manage a variety of projects. Some of them were employed in project-based organisations (e.g. construction companies), while others in repetitive actions-oriented organisations (e.g. banks). The results of this research concur with previous results obtained by AchieveGlobal. All respondents (22 project managers) chose people orientation as the main factor contributing to the effectiveness of different types of project.

One hundred project managers were asked the same question in structured direct interviews within the main author's research project titled "Personnel function in project-oriented organisation" (DEC-2013/09/D/HS4/00566) in 2014. Half of the respondents worked in project-based organisations and the half in other business sectors in Poland. The author used a purposive sample which was selected based on the knowledge of a population and the aim of the study. The number of organisations which are based on repetitive actions but also use tools of project management is not determined. Therefore, it is difficult to determine the number of subjects in the research population. The main goal of the research was to diagnose differences in HRM in both types of organisations. 76% of project manager's chose people orientation and 24% task orientation as dominant behavioural factors which influenced a project effectiveness. The answers were not correlated with the type of organisation (project-based vs. not project-based). The author realises that the findings of this study should be considered carefully. They are a subject to the limitations of the method.

The above mentioned results correspond with the outcomes of the empirical research on the impact of organisational culture on the effectiveness of project

management. Patterns of behaviour accepted within a group as binding are at the same time one of the components of cultural artefacts [Roehm, 2006, pp. 24-30]. According to C. Sikorski [2005, p. 12] patterns of behaviour, as a third type of cultural patterns, are formed due to popularisation of certain attitudes of group members towards particular objects and situations.

The empirical research held by H.J. Yazici [2011, p. 27] presents that the clan culture that is characterised by high coherence, collegiality in decision-making and a special sense of organisational identity, significantly increases the effectiveness of projects. The author used the culture typology by K.S. Cameron and R.E. Quinn (For more see [Cameron, Quinn, 2006]). The survey was distributed to 400 project professionals from chapter of Project Management Institute and chapter of American Society for Quality Control. Respondents were asked to divide 100 points among four types of organisational culture, depending on the extent to which each culture was similar to their own organisation and what they would prefer to see in five years (a desired culture for project and business performance).

Such an opinion was also concluded during the author's research (used case study method) conducted in one of the financial services companies in Wrocław in 2013. The author also used the culture typology by K.S. Cameron and R.E. Quinn. The data was collected by using structured as well as informal direct interviews with 7 people involved in projects (project managers and significant line managers). Most of them acknowledged the existence of a relationship between organisational culture and the method of project completion. The cultural influence is visible in:

a) Project team structure, role distribution, time allocation,
b) The prerogatives of project manager, project management methodologies, the way of accommodating changing customer needs
c) Topics and goals of a project.

The interviewed respondents clearly stated that the clan culture is the best positive stimulus, not only when it comes to the project work but all the activities undertaken in the organisation as well (For more see [Piwowar-Sulej, 2014, pp. 143-148]).

Conclusions

It is common knowledge that approaching various challenges as projects has been steadily gaining popularity. Using even the most basic techniques to facilitate planning and monitoring of projects contributes to boosting work efficacy. Therefore, project managers should be familiar with basic rules of project management in order to handle the task at hand in a more effective way.

Project managers are directly involved in the process of project management. They coordinate tasks, keep the project team motivated and eliminate all the obstacles. Generally speaking, as someone responsible for managing the team smoothly and making it feel "gelled", project managers should be knowledgeable in the area of human behaviour and how people function in teams.

As indicated in the article project team members can manifest three types of behaviour: self-oriented, interaction-oriented and task-oriented. The predominant type of individual behaviour is reflected in the type of team behaviour. On the basis of the aforementioned research it can be concluded that people-oriented teams are rated as more successful. The processes or tasks orientation is not reflected in the teamwork results. People orientation characterizes organisational culture called the "clan culture". This particular type of culture influences positively not only the project efficacy but also all types of actions undertaken in an organisation.

The author would like to emphasise certain constraints imposed by these studies. Their results cannot be extrapolated on the whole population of projects. Projects can be vastly different with respect to area, duration, degree of innovation. It would therefore be worthwhile to conduct further research on the relationship between different types of projects and their corresponding mix of behavioural types.

dr Katarzyna Piwowar-Sulej
Uniwersytet Ekonomiczny we Wrocławiu
Katedra Pracy i Stosunków Przemysłowych
e-mail: katarzyna.piwowar@ue.wroc.pl

References

[1] BACCARINI D., *The Logical Framework Method for Defining Project Success*, „Project Management Journal" 1994, No. 4.

[2] BARAN S.J., DAVIS V., *Teorie komunikowania masowego*, Wydawnictwo Uniwersytetu Jagiellońskiego, Kraków 2007.

[3] BELBIN R.M., *Management Team: Why They Succeed or Fail,* Heinemann, London 1981.

[4] BELBIN R.M., *Team Roles at Work,* Buccerworth-Heinemann, Oxford 1993.

[5] BELBIN R.M., *Twoja rola w zespole*, Gdańskie Wydawnictwo Psychologiczne, Gdańsk 2003.

[6] BOŻEK A., *Zachowania w procesie zespołowym a skuteczność zespołów projektowych*, 2010, http://www.hrnews.pl/News1.aspx?id=2479, date of access 2010-03-26.

[7] BURKE C.SH., STAGL K.C., KLEIN C., GOODWIN G.F., SALAS E., HALPIN S.M., *What Type of Leadership Behaviors are Functional in Teams? A Meta-analysis,* „The Leadership Quarterly" 2006, No. 17.

[8] BURTON C., *Zarządzanie projektem. Jak to robić w Twojej organizacji*, ASTRUM, Wrocław 1999.

[9] CAMERON K.S., QUINN R.E., *Diagnosing and Changing Organizational Culture Based on the Competing Values Framework,* John Willey & Sons, San Francisco 2006.

[10] COHEN S.G., BAILEY D.E., *What Makes Team Work: Group Effectiveness Research from the Shop Floor to the Executive Suite*, „Journal of Management" 1997, Vol. 23, No. 3.

[11] GEHRING D.R., *Applying Traits Theory of Leadership to Project Management*, „Project Management Journal", March 2007, Vol. 38, No. 1.

[12] GEOGHEGAN L., DULEWICZ V., *Do Project Managers' Leadership Competencies Contribute to Project Success?* „Project Management Journal", December 2008, Vol. 39, No. 4.

[13] GILLEN T., *Jak asertywnie wpływać na ludzi*, Wydawnictwo Petit, Warszawa 2002.

[14] HALLRIEGEL D., SLOCUM J., *Organizational Behavior*, 13th Edition, Cengage Learning, Mason (USA) 2008.

[15] KATZENBACH J.R., SMITH K.D., *Siła zespołów. Wpływ pracy zespołowej na efektywność organizacji*, Oficyna Ekonomiczna Dom Wydawniczy ABC, Kraków 2001.

[16] KENDRA K., TAPLIN L.J., *Project Success: A Cultural Framework*, „Project Management Journal" 2004, No. 35(1).

[17] KOZIELECKI J., *Koncepcje psychologiczne człowieka*, Wydawnictwo Akademickie „Żak", Warszawa 1998.

[18] KOŻUSZNIK B., *Kierowanie zespołem pracowniczym*, Polskie Wydawnictwo Ekonomiczne, Warszawa 2005.

[19] LENCIONI P., *The Five Disfunctions of a Team, A Leadership Fable*, Jossey-Bass, San Francisco 2002.

[20] LICHTARSKI J.M., *Sukces w zarządzaniu projektami – wybrane problemy teorii i praktyki*, [w:] CZUBASIEWICZ H., MOKWA Z., WALENTYNOWICZ P. (red.), *Uwarunkowania sukcesu organizacji*, Fundacja Rozwoju Uniwersytetu Gdańskiego, Gdańsk 2013.

[21] LOCK V., *Podstawy zarządzania projektami*, PWE, Warszawa 2009.

[22] ŁOBOCKI Z., *Skuteczny team,* „Personel i Zarządzanie" 2010, No. 4.

[23] MCFADZEAN E., *Developing and Supporting Creative Problem-solving Teams: Part 1 – a Conceptual Model*, „Management Decision" 2002, Vol. 40, No. 5/6.

[24] MELNIC A.-S., PUIU T., *The Management of Human Resources within Projects: the Structures of Project Team, the Responsibility Assignment Matrix*, „Economy Transdisciplinarity Cognition" 2011, Vol. XIV, Issue 1.

[25] MIERZWIŃSKA L., *Personalne aspekty sukcesu projektu informatycznego realizowanego z zastosowaniem metodyk zwinnych*, Part 1, „Zarządzanie i Finanse" 2013, No. 4.

[26] MILLER D., *Zespoły*, PWE, Warszawa 2010.

[27] O'CONNELL F., *Szybka realizacja projektów*, Oficyna Wolters Kluwer, Kraków 2009.

[28] PIWOWAR-SULEJ K., *Effectiveness of Project in Light of Its Internal Stakeholders*, Prace Naukowe UE we Wrocławiu 2011, No. 224.

[29] PIWOWAR-SULEJ K., *Funkcja personalna w organizacji zorientowanej na projekty – jej kształt oraz rola działu HR w realizacji tej funkcji*, „Folia Oeconomica" 2013, No. 283.

[30] PIWOWAR-SULEJ K., *Kultura organizacyjna i jej wpływ na działalność projektową – studium przypadku*, „Marketing i Rynek" 2014, No. 5.

[31] PORTA M., *A Dictionary of Epidemiology*, Oxford University Press, New York 2008.

[32] Report 2010: *Orientacja na ludzi, zadania i procesy – wyniki badania zespołów w polskich organizacjach*, „Nowoczesna Firma", March 2010.

[33] ROEHM S., *Coroprate Culture. How Corporate Culture is Managed in Organisations and What Could Be Done Better?*, Green Publishing GmbH, Munich 2006.

[34] SENIOR B., *Team Roles and Team Performance: Is There 'Really' a Link?* „Journal of Occupational and Organizational Psychology" 1997, Vol. 70, Issue 3.

[35] SIKORSKI C., *Zachowania ludzi w organizacji*, Wyd. Naukowe PWN, Warszawa 1999.

[36] SIKORSKI C., *Język konfliktu. Kultura komunikacji społecznej w organizacji*, C.H. Beck, Warszawa 2005.

[37] TROCKI M., GRUCZA B., OGONEK K., *Zarządzanie projektami*, PWE, Warszawa 2003.

[38] WALKER C.J., PETERSON A.S., *Are You a Project Manager/Leader or Just Managing Project?*, [in:] People in Projects, Joint Publication, PMI, Pennsylvania 2001.

[39] WEST M.A., *Effective Teamwork. Practical Lessons from Organizational Research*, Third Edition, BPS Blackwell, West Sussex (UK) 2012.

[40] WĄSOWICZ M., *Sukces w zarządzaniu projektami*, Prace i Materiały Wydziału Zarządzania Uniwersytetu Gdańskiego Vol. 2/1, 2009.

[41] YAZICI H.J., *Significance of Organizational Culture in Perceived Project and Business Performance*, „Engineering Management Journal" 2011, Vol. 23, No. 2 (June).

[42] YOUNG T.L., *Skuteczne zarządzanie projektami*, Helion, Gliwice 2006.

Wpływ zachowań członków zespołu na skuteczność realizacji projektu

Streszczenie

W literaturze poświęconej pracy zespołowej prezentowane są rodzaje zachowań członków zespołu. Uznano, że warto te rozważania odnieść do pracy w projekcie. Celem artykułu jest udzielenie odpowiedzi na postawione niżej pytania:

Jakie występują rodzaje zachowań jednostek w zespole?

Jak określone typy zachowań jednostek wpływają na typ zachowania zespołu?

Jaki typ zachowań zespołu gwarantuje wypracowanie założonych celów projektu?

Wykorzystano przy tym takie metody badawcze, jak studia literatury z zakresu psychologii oraz zarządzania zespołami (w tym zespołami projektowymi), a także wyniki badań obcych i własnych nad efektywnością zespołów. Ponieważ zachowania można uznać za artefakt kulturowy, w procesie badawczym odniesiono się także do wyników badań nad typami kultur organizacyjnych sprzyjających zarządzaniu projektami.

Słowa kluczowe

zachowanie, projekt, praca zespołowa, skuteczność