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The concept of project evaluation in the implementation of innovation

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Abstract: Innovation is a collection of unique projects, portfolios or project programmes. Current changes are influenced by phenomena in the organization and its environment. We continue to ask ourselves, especially during the pandemic crisis, how to build the trust and safety of project teams if the assumptions made, which had previously been undisputed, become a challenge. The aim of the article is to identify the limitations and barriers that accompany project teams during the implementation of innovations and to present methods for overcoming them. To achieve this goal, a proposition was prepared for our own diagnostic tools, paying particular attention to the phenomenon of priming in the design and dissemination of innovations. The factors determining the effectiveness of project handover between teams were also selected. According to the author, priming is the removal of obstacles to making a transition in innovative projects. The author's presented method of assessing internal stimuli determines the functioning of project teams. The article adopts the thesis that the effectiveness of the handing over of innovative projects depends on the preparation of project teams to fulfill this mission in the company. Based on the conclusions of the discussion, the handing over of an innovative project is the fulfillment of stakeholder expectations in accordance with the criteria of the feasibility, desirability and viability of the project. To achieve this, the (transferor/ user) teams should have a common understanding of the final product design requirements and expected quality.

Keywords: innovation management, innovation projects, handing off innovation projects, implementation of innovation projects, diffusion of innovations

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1. Introduction

Project management is an interesting way to manage change and achieve results in an organization. For this purpose, integrated platforms are created that include complex systems, processes and tools. For a significant number of companies, it is still a challenge to change the business profile from tra-

ditional task orientation to project and to effectively disseminate new products in the market space, in business reality and in contact with clients.

Innovation is rarely the result of the work of lone designers. Nowadays, numerous innovations begin to use old ideas in new contexts (Hargadon and Sutton, 2006, p. 63). The best companies in the world apply this principle in the course of a cyclical innovation process that focuses like a lens during the transfer of an Innovation Project (IP) to the market space. The main goal of the discussion described in the article is to identify the factors determining the transfer of projects and to indicate methods that can improve this process in the organization. The goal defined in this way required the analysis of selected literature items, the development of a study on the phenomenon of priming in projects and the preparation of a concept for the method of handing over innovation.

The methodology of the research described in the article is based on three pillars:

– rich domestic and foreign literature in the field of innovation and a small amount in the area of transfer of innovation projects were analyzed;
– a study of the phenomenon of priming in projects during the pandemic was carried out;
– experience in agile project management and knowledge of design thinking methodology were used.

The article adopts a thesis according to which the effectiveness of the transfer of innovation projects depends on the appropriate preparation of project teams to fulfill this mission in the company. Projects that achieve market success are results-oriented, rather than action-oriented, undertakings. The goal of any new product or service is to fulfill the expectations and needs of clients. To achieve this, an agreement should be built between the parties (stakeholders) in the project.

Project management is a multidisciplinary and eclectic area. Also, project handover can be defined in different ways. According to the traditional PRINCE2 methodology, the transfer of a project is closely linked to its closure, which consists in "indicating the agreed point at which the acceptance of the final product of the project shall be confirmed and the state in which the goals specified in the original Project Initiation Documentation have been achieved (or approved changes in these goals have been achieved), or that the project (that is, the temporary organization) has nothing else to contribute" (Axelos, 2014, p. 217). The presented definition of the completion stage of an ordinary project results from the belief that it is a predictable undertaking, which has a finite duration and provides previously planned outputs/ deliverables. During the diffusion of an ordinary project, the deficiencies are remedied and warranty service or financial settlement of the investment takes place. The basis of these activities is an agreement (contract), which results from the definition of the final state of the investment.

Meanwhile, nothing is obvious in innovation projects. The lack of a clear definition of project implementation activities further aggravates the difficulties in understanding the nature of innovation transfer. Teams (transferor/ user) have general and specialist knowledge, but they relate to narrow areas of project implementation. Moreover, not all stakeholders of this event have common goals, therefore the handing over of innovation should be treated as an iterative process in which the parties to the transfer should agree on deliverables. Preparation of the implementation of project and support for it, as well as support for implementation teams (responsible for disseminating new products), constitute a key part of this undertaking.

The main goal of project verification is then to draw conclusions, and its final effect should be the preparation of proposals for the future.

The results of observations by the *Association for Project Management* indicate several important factors that have been confirmed during research into effective project teams (2017, p. 7), i.e.:

- the planned benefits have been established and communicated to stakeholders at the outset (85% positive feedback);
- the design approach was dominant throughout the life cycle of the new product or service (85%);
- the end users are represented on the project team throughout the project life cycle (75%);
- lessons learned from previous projects are reviewed at the start of this project (71%);
- post-handover, on-site support from the project team remained for longer than 2 weeks (65%);
- training happens in a concentrated period leading up to handover (61%);
- documents concerning the dissemination of the project were prepared by an external company (58%);
- knowledge transfer was planned from the start of the project (58%).

To sum up, it should be stated that in the traditional sense, projects serve in the process of producing material effects. On the other hand, innovation projects create intangible artifacts that benefit the entire organization. One of the reasons why issues of the coherence of project activities are the subject of research is the urgent need to effectively disseminate innovation through the process of diffusion (Hansen and Birkinshaw, 2007, p. 3). The handover of innovative projects means meeting the expectations of stakeholders in accordance with the adopted criteria of the feasibility, desirability and viability of innovation. To achieve this, the (transferor/ user) teams should have a common understanding of product requirements and expected quality. Taking the above definition as a starting point, it should be stated unequivocally that defining information and knowledge transfer activities is crucial, in relation to both the project and the management of its implementation.

2. Contemporary determinants of the transfer of innovative projects

Project is a broad term that covers both the creation of new products and the improvement of existing ones.[1] Modern project management methodologies (e.g. PRINCE2, Project Management Institute—PMI, International Organization for Standardization—ISO, International Project Management Association—IPMA) emphasize the importance of time, goal, resources, models and result orientation of the project (e.g. development of a new product, service or other specific result). Unique execution activities, a business case and a dedicated project team are also important attributes. A traditional project is: "a temporary organization designed to deliver one or more business products in accordance with a business case" or "a unique process consisting of a set of coordinated and managed activities with specific start and end dates, with the intention of achieving a goal consistent with specific requirements based on time, cost and resource constraints".

[1] The most important features of the project are: purposefulness, temporality, complexity, limitation, uniqueness, planning and predictability.

A project is also a "cost and time limited operation producing a set of defined products in accordance with quality standards and requirements" (OGC, 2005; IPMA, 2006).

In recent years, there has been an increase in the importance of project approaches for solving complex problems and creating innovation. The efficiency of designing new products and services distinguishes organizations in the market. The core content of projects, such as "time-limited effects", "managed collection of resources", "unique process", "cost and time--limited operation", determine the competitive advantage in the market.

It is hard to clearly distinguish an innovation project from a traditional one, due to the blurred line that appears in the context of these two separate activities (Sońta-Drączkowska, 2018, p. 61). The question is what the differences between these undertakings are. First, an innovation can vary in form and scope. It is an idea, a sketch of something, an intended action plan, a programme, a pre-design concept. It is also a prototype, i.e. the first trial experimental copy of a new type of machine, a model that can be modified and developed in the future. Secondly, an innovation project should not be treated as one more traditional task in an organization, therefore it cannot be managed by ordinary methods, it requires new control models.

It is not difficult to notice that each project represents the most important value of an innovative company. The uniqueness of this activity means that the experience gained during its implementation cannot be repeated in the form of the same actions in the next project, but it supports the decision-making process. This results in a creative approach to a new problem, where uniqueness concerns not only the method of implementation, but also the benefits, i.e. the product or service that arises as a result of it. Innovation today is not a one-way process, nor is it based on a simple cause-and-effect relationship between creativity and business operations. It is an interactive, collegial process with a strong social tone.

Recent years have proved that the handover of innovation projects is not automatic. The *Association for Project Management* (2017) defines transfer projects from one team to another as "the point in its life cycle where deliverables are handed over to the sponsor and users". Evidence for the importance of comprehensive dissemination of innovative projects is provided by cases described in the literature (Cadle and Yeates, 2008; McIntosh, 2017), which include the following factors:

– knowledge and experience of the project team;
– project maturity of the organization;
– contact with project stakeholders;
– evaluation of project progress;
– implementation competences;
– preparation of the organization for the operation of a new project.

Innovation diffusion is a process of change, and the process of change is a sphere of communication (Highsmith, 2010, pp. 268–269). At this stage, the client receives the finished product and carries out a series of examinations and tests to confirm whether the system meets his expectations and needs. Project implementation control enables, as a result, efficient organization of production, distribution, operating, maintenance and servicing of the product throughout its life cycle.

Notwithstanding the described material features of projects, there are also significant discrepancies in their evaluation and handover procedure. As a rule, control efforts are focused

on the initiation and implementation phase of the project. This measurement concerns the determination of expenditure on research and development, acquisition of new technologies, licenses and employment of personnel. On the other hand, the assessment of the effects comes down to monitoring changes in financial statements. At the end of each project, the deliverables are measured to check whether the users are satisfied and whether the cost and implementation time of the undertakings have been met (in accordance with the specification). On the basis of the evaluation of projects, it is then possible to decide on preventive actions or measures, or emergency actions, during the dissemination of innovations.

3. Proposition of diagnostic tools in the area of innovation implementation

3.1. Research methodology

The implementation of a new product or service for production or use closes up the innovative project. It is also the beginning of the gradual absorption of innovations in the market.[2] At this stage, the elements of the innovation system are examined and the project's possibilities are identified and tested in real conditions (van Heerden, Steyn and van der Walt, 2015). There are also new concepts of product management in the diffusion phase and a detailed plan for the use of resources in the new organizational and market environment. A pilot batch is launched that defines the production process. In turn, the marketing and sales departments are responsible for introducing the offer to the market. The commercialization of the project is the final test of the new product, i.e. whether the innovation works; how can we be successful in the market and what will be the multifaceted benefits?

Diffusion of innovation is an activity that covers the whole organization (Langley et al., 2009, pp. 5–24). It is also a complicated task of handing over a project for implementation, in which two teams participate, a design team (creative team) and an implementation team (e.g. production, sales, legal, etc.). Project evaluation under such circumstances has a temporal and spatial dimension. Indeed, it presupposes a control that is not obvious. It is a phenomenon that causes conflicts and dissatisfaction among staff. The crisis consists in an innovation coming closer to the rules of conduct in the organization, and thus to the pragmatic way of managing a product or service.

The discussion around the implementation of innovative projects touches upon many aspects. Theorists acknowledge the complexity of this process, which may depend on the context and scope of the project, and the overlap between development and delivery activities (Khan and Kajko-Mattsson, 2010). In the presented research, a qualitative approach was chosen which treats the subject of research—the evaluation of projects in the implementation of innovations—naturalistically. It is intended to answer the questions of how, in what way and why. This procedure is therefore explanatory and highly descriptive, which works well for conceptual and design work. In these studies, there is already the possibility of focusing on

[2] Diffusion refers to the way innovation spreads through market and non-market channels, from initial deployment to customer engagement, to presence in different countries, regions, sectors, markets and companies. Without diffusion, innovation would not be economically significant.

the means by which designers identify their experience related to the specificity of innovative projects, and less on numerical data or the frequency of occurrence of certain phenomena.

3.2. Implementation of the project and the phenomenon of priming in project management

As a result of a comprehensive diagnosis of the course of innovation transfer, the author's own concept of the handover of innovative projects was prepared. The proposed tools result primarily from the analysis of the phenomenon of priming in the design and application of innovations.

The success of innovation increasingly depends on the competence of project teams. Priming is the removal of obstacles to making a transition in innovative projects. Many authors write about the importance of priming in psychology, a phenomenon that initiates an automatic mental process which "latent at first, then reveals itself in the presence of liberating external information. Automatic subconscious processes are therefore activated before the appearance of an external stimulus. On the other hand, the occurrence of goal-related automatisms requires the fulfillment of one prerequisite—the intention to perform a mental activity. If this condition is met, it is immediately followed by an autonomous process that does not require any additional, conscious and reflective control of its course (for example, as occurs in a well-trained cognitive procedure or perceptual-motor skill)" (Bargh, 1999). Additionally, according to Wikipedia: priming "is a phenomenon whereby exposure to one stimulus influences a response to a subsequent stimulus, without conscious guidance or intention" (Priming, 2020). This is the manipulation of effects (experiences) that arise under the influence of multiple factors.

Presented effect can be used in various areas of life, as well as in project management, especially during their application. It is influenced by earlier contact with a given factor. In this way, a team can be developed to implement a project effectively. Priming is, in a sense, the effective preparation of team members for unexpected events that may occur at any time. The basis is a stimulus directed to our prime subconscious, which can be verbal, visual, tactile or auditory. This factor influences our subsequent behaviour, activating itself in the project environment. How can we use this knowledge?

3.3. The phenomenon of priming in project teams—a qualitative study

Confirmation of the occurrence of the phenomenon of priming in design was carried out among experts and designers from the IT industry. This study was interesting because it was not, like most experiments of this type, conducted on students, but on 50 computer scientists. As in the study by Karyłowski et al., the described test used the phenomenon of priming. However, instead of urging the subjects to try not to pay attention to the initial stimuli (in our case—the design process), the opposite strategy was used. Namely, the respondents were asked to try to keep the introductory stimulus (design experience) in mind for a few seconds so that after seeing and reacting to a specific factor (in our case a specific question) they could answer a question concerning the initial stimulus (1999).

During the experiment, specialists were divided into two groups—one was given a note to read about high-risk projects, which ended in success. The second group received informa-

tion on the need to avoid an error as a result of interrupting a risky activity. Next, both groups received a questionnaire—an introduction to the new project involved answering a few questions: what are you really good at; what is your professional success; what have you achieved for your company; what proves that you are suitable for the project you are doing; why are you, out of all the candidates, the best suited to lead the next project; why should you lead people on a project team? The group that read the information about the risky project was inclined to make difficult design decisions, there were more positive relationships, the individual characteristics also included challenges and descriptions of ways to deal with them. Additionally, during the evaluation and analysis of the research results, the specialists' statements were divided into three roles in the project team that relate to the course of the innovation process: research, scaling and optimization (Brown, 2018). The study concerned the work of a designer in a research and development team, in contact with clients and developers. Scaling involved an iterative experimentation process that, using agile management methods, brings a new product to the market space. Optimization is the successful business implementation of a project (Table 1).

Table 1. The phenomenon of priming in project teams—a qualitative study

Role in the project team	Characteristics (selected statements of the study participants)
What are you really good at?	
Research	"Analytical thinking; configuration of network devices; participation in research; Angular programming/ Net/ Azure cloud; marketing; resistance to stress; setting up computer networks; logical thinking; sense of aesthetics; planning, writing texts and learning languages"
Scaling	"Programming, creating and designing IT architectures; computer technology; interpersonal contact; perceiving connections between various phenomena in the environment"
Optimizing	"Implementation of networks, listening to employees; organizing cooperation; operating systems and sales"
What is your professional success?	
Research	"The current project, in which I fulfill the role of analyst, and not just a domain expert; building the project from scratch; implementing several large projects in state-owned companies worth several million zlotys"
Scaling	"Preparation of several interns for work in positions; in three years I became the technical leader of the team, starting from a junior position; being the best in the team and becoming promoted; that the team did not fall apart; creating new infrastructure and improving the old network"
Optimizing	"Winning clients, taking care of employees; building an effective team; with 40% higher application performance (RAM); finding a large error in the production of software on the first day of work; solution of a large network problem in a short time; logical thinking"
What have you achieved for your company?	
Research	"Building the front-end and back-end as well as automation of implementations; support for projects; proposal for a change that had an impact on the effectiveness of work"

Role in the project team	Characteristics (selected statements of the study participants)
Scaling	"Maintaining development in the company; contracts; organization of a project from the front-end; high profitability; client satisfaction; improving functioning in communication and technical aspects; creating a back office, selecting a team, obtaining resources for international projects"
Optimizing	"Improvements in the working group on the basis of office tools; management of the entire architecture of the product, thanks to which functionality is 'delivered' despite very limited time; significant reduction of infrastructure maintenance costs"
What proves that you are suitable for the project you are doing?	
Research	"Speed of learning, knowledge related to IT systems in the organization, being hard-working, knowledge, experience; independence; commitment; deep knowledge of protocols, compilers and virtual machines (JVM, NET, CLang); ability to manage time when working with clients"
Scaling	"I can carry out any task in the organization; I can supervise the team in terms of the technical/ project/ client contact sides"
Optimizing	"Familiarity with multiple planes and understanding of their integration; ability, method of management; I can adapt to different conditions"
Why are you, out of all the candidates, the best suited to lead the next project?	
Research	"I can set goals clearly and I can listen; in my previous company I dealt with designing architecture in Azure, so I will be the most competent during migration from one supplier to another person"
Scaling	"Over 10 years of experience in the company, where I often acted not only as an initiator/ leader in terms of changes regarding my unit, but also as a mediator and tester; I possess leadership skills, I can divide tasks; I have already led technology projects of high complexity (core banking system, zero downtime requirement)"
Optimizing	"I have many years of experience in the field of team management and software development; I have experience and always try to find the best route to the destination"
Why should you lead people on the project team?	
Research	"I always try to be well prepared so my decisions can be relied upon; I am well-suited to the role of mentor who supports team members in solving their tasks"
Scaling	"Due to my experience; I consider myself a perfectionist and I can see the elements even in the smallest things; I have managerial experience, I have already managed a team of several people"
Optimizing	"I have both knowledge and skills in IT and business, I also have some experience in project work and people management; before I started working as a programmer, I ran two associations and youth sections in political parties, in which I managed projects and managed the people involved in them; I can plan tasks and look at a project from many perspectives"

S o u r c e: Author's own elaboration.

Based on the presented qualitative research in the IT industry, it can be seen that even such a complex process as design can be influenced by incentives related to the knowledge and experience of designers, especially in the area of results that have been successful in the past. It turns out that computer scientists often use priming. But the impact of priming is also worth remembering when making tough design choices in other industries.

3.4. Analysis of the functionality of the company in terms of handover of innovation projects

Integrated knowledge, created from the collision and overlapping of different directions of changes, can stimulate conceptual work and enrich the methods of its implementation. Measurement factors, understood as the ability of the (transferor/ user) teams to accept the innovation project, are included in the components related to the strategy, organization and implementation process and include: defining new managerial roles, creating action plans, designing processes, mastering IT tools, emergency response, etc., which can be measured in the areas listed below (Table 2).

The presented assessment categories result from various decision-making problems in the entire organization (McIntosh, 2017). The assumption is that the innovative project is a complex undertaking concerning the implementation of the strategy, capturing benefits, protection of intellectual property, use of resources and modeling of business processes. These are also features that determine the value of the project in the long term (what level does it represent; what is its intellectual value; will it create space for the organization's development; is it a competitive advantage?) and contribute to the problem of innovation transfer.

Table 2. Internal determinants of the implementation team

Assessment team determinants	Components
Innovation strategy	
Adaptation of the innovation strategy	Knowledge of strategic documents, innovation indicators
Project maturity	The ability to properly select projects, the ability of the organization to identify success factors
Organization and innovation culture	
Leadership	Decision-making, education, ability to react in crisis situations and communication skills
Cooperation	Openness, the ability to work in a group, the ability to perform tasks in a team and solve problems together
Culture	Understanding, tolerance, permission to make mistakes
Organization of work	Planning, coordination, staff participation
Diffusion process	
Budget	Knowledge of the financial and investment plan

Assessment team determinants	Components
Implementation methods	Ability to use existing organization methods and management
Assessment criteria	Clearly defined, useful, broadly understood determinants of evaluation
Factors enabling the evaluation of innovation	
Protection	Knowledge of the legal forms of protection of innovation
Competencies	Ease of efficient and effective assessment—meeting quality expectations
Motivation	Willingness to take actions that are relevant to the assessment
IT tools	Mastering IT tools, using databases and experience

S o u r c e: Author's own elaboration.

Analysis of the company's functionality in terms of handing over innovative projects can be carried out in accordance with the author's matrix below (Table 3). The first area of measurement includes the company's ability to hand over the features of the functionality of an innovative project, i.e. product quality, marketing methods, innovativeness of the solutions adopted and the place of the project in the innovation system. The second part covers the company's predispositions to transfer information about the desirability of the project, i.e. production technology, organizational and legal solutions adopted, personnel preparation, management style, organizational culture and external contacts of the company. The third area covers the competence of the personnel to hand over the economic and technical effectiveness of the project.

Table 3. Analysis of the functionality of the company in terms of handover of innovation projects

Category of the company's ability to evaluate and hand over the project and characteristics		System Assessment	
		Pts.	Characteristics of the indicator
1		2	3
Diagnostic function—evaluation of the feasibility of the project			
The ability to evaluate project quality—AQ	Knowledge of planning and quality control methods	1	There is a lack of staff and quality assessment activities
		2	The organization carries out its own quality tests to a limited extent
		3	There is a quality department that deals with the adaptation of solutions from outside the company

Category of the company's ability to evaluate and hand over the project and characteristics		System Assessment	
		Pts.	Characteristics of the indicator
1		2	3
The ability to evaluate the marketing of the project—AM	Mastering marketing tools	1	The company lacks separate marketing units and no market research is conducted
		2	The company has marketing personnel who generally research client needs
		3	The organization has a marketing department and a management system, thanks to which systematic research of client requirements and satisfaction is carried out
The ability to evaluate project innovation—AI	Ease of efficient, effective evaluation (handover) meeting the quality expectations	1	Lack of research and development services and activities
		2	The organization conducts its own research to a limited extent in order to constantly modernize and create new products
		3	The organization conducts its own research and cooperates with specialized units of the R&D sector in order to create new products
The ability to evaluate the information system—AIS	Mastering IT tools, using databases and experience	1	Information is collected and stored only on paper carriers
		2	There is an internal IT network in the company that covers 30–50% of employees
		3	There are various databases in the internal network and modern IT systems are used
Structural function—project desirability assessment			
The ability to evaluate innovation and production technology—AT	Willingness to take actions that are relevant to the evaluation	1	Own costs of manufacturing the product are at the level of the average prices obtainable on the market (profit margin 0–7%)
		2	Profit margin obtained on the products sold is 8–15%
		3	Profit margin obtained on the products sold is over 15%
The ability to evaluate organizational and legal aspects of the project—AL	Knowledge of legal forms of protection of innovation, organizational structure adjusted to PI	1	Lack of staff and activities related to organizational and legal assessment
		2	The company carries out limited organizational and legal activities, including a patent audit of an innovative project
		3	There is a legal department dealing with organizational and legal issues, including a patent audit of new products

Category of the company's ability to evaluate and hand over the project and characteristics		System Assessment	
		Pts.	Characteristics of the indicator
1		2	3
The ability of personnel to evaluate—AH	Decision-making, education, reacting in crisis situations, communicativeness	1	The average number of improvement applications per 1 employee in the company is 0–9
		2	The average number of improvement applications per 1 employee in the company is 10–14
		3	The average number of improvement applications per 1 employee in the company exceeds 15
The ability of the style and system of management to evaluate—AM	Ability to use existing standards and methods of organization and management	1	No innovative products on sale
		2	The share in sales of innovative products is 5–49%
		3	The share in sales of innovative products is more than 50%
The ability to evaluate the organizational culture—AC	Forbearance, tolerance, the possibility of making mistakes	1	No visible traces of organizational culture and the effects of innovative activities
		2	Visible external artifacts and the ability to organize and implement team work
		3	Visible external and linguistic artifacts, low employee turnover, good competitive position of the company
The ability of the organization to evaluate external contacts—AX	The ability to find partners for cooperation that brings benefits to the organization in acquiring knowledge useful for development	1	The company maintains contacts with clients and suppliers and sees no need to extend them
		2	In addition to information from clients and suppliers, the company collects and analyzes all information about competitors
		3	In addition to the above-mentioned, the company has a system for collecting information from distributors, sellers, service technicians, the company maintains contacts with R&D sector units
Prediction function—assessment of project effectiveness			
Project investment assessment capability—AF	Knowledge of the financial and investment plan	1	The organization obtains a negligible positive financial result and does not plan any significant pro-innovation activities
		2	The organization achieves a profit of 5–19% of revenues and allocates up to 39% of this profit to innovative activities
		3	The organization achieves a profit of over 20% of revenues and allocates over 40% of this profit to innovative activities

Category of the company's ability to evaluate and hand over the project and characteristics		System Assessment	
		Pts.	Characteristics of the indicator
1		2	3
Ability to perform technical and technological evaluation of the project—ATT	Knowledge and ability to use new technologies	1	Lack of services and activities related to the assessment of the technical effectiveness of the project
		2	The organization conducts its own research on the technical effectiveness of the project to a limited extent
		3	There is a production department dealing with the adaptation of company solutions to the production needs of the organization

S o u r c e: Author's own elaboration.

The overall index of the company's ability to implement the project (AIP), taking into account weighting factors, expressed on a scale from 1 to 3, can be calculated from the formula:

$$AIP = \frac{3(AQ + AM + AI + ZSI) + 2(AF + ATT) + AT + AL + AH + AM + AC + AX}{22}$$

where: *AQ*, *AM*, *AI*, …, *AX*—designate specific numerical values based on the previously performed assessment of individual categories (Table 4).

Table 4. Values of company functionality analysis in terms of project handover

Category	Assessment value	Characteristic
A	2.51–3.00	Reference quantity
B	2.01–2.50	State of high fitness, appropriacy
C	1.51–2.00	Useful condition
D	1.00 –1.50	Uselessness

S o u r c e: Author's own elaboration.

There is a clear organizational orientation in the perception of project transfer measurement presented. In innovation companies, single events turn into long-term activities. Due to the lack of fast results, reluctance to take action arises. An important aspect of verifying the correctness of adopted solutions is risk assessment, which may be described in strategic documents or the organization may prepare appropriate guidelines for an innovation project. Measurement of uncertainty influences decision-making and supports it, especially in the context of the cause and probability of events, time and planned response (Thirion, 2018).

An important issue is also the preparation of an early warning system, the task of which is to inform the company about threats. Risks can be minimized by discipline and organization, which can be stimulated by an internal compass and radar. The compass measures the

internal direction of action, while the radar collects signals from the outside. Innovative companies can improve their skills to use these two instruments simultaneously, which results in effective and timely implementation of innovation projects.

4. Self-evaluation of projects in the implementation of innovations

Self-evaluation is the primary way of evaluating an innovation project during the transfer of innovation.[3] This technique is derived from self-monitoring and gives an idea of how far the company is on the innovation roadmap and what it needs to do in order to achieve market success. In addition, it easily indicates the strengths and weaknesses of the organization, it also helps to find the cause of the existing condition in order to identify real opportunities for further improvement of the quality of work, systems or processes. It also fulfills other functions (Kwintowski 2015, pp. 346–350), i.e.:

- it is a subjective review of an innovation project (verification function);
- it works by comparing one project with another, which helps in early diagnosis of any irregularities that may contribute to future problems (benchmarking function);
- it allows collection and analysis of information relating to individual areas of the project management system and organization (information function);
- it helps in the implementation of corrective and preventive actions (diagnostic function);
- it connects separate problems thanks to individual self-assessment criteria (integrating function);
- it improves the innovative culture of the company (culture-forming function).

The most important issue in self-assessment is that the organization can independently, without the participation of external experts, assess the innovation project (using a universal question sheet) in key areas, i.e. feasibility, desirability and viability.[4] Before analyzing the questionnaires, it is necessary to define, in agreement with the management, the threshold which if exceeded will indicate weakness of the innovative project in a given area, e.g. 50% of negative answers of all those received for a specific question. It is also possible to determine which areas or features of an innovative project are considered by the management of the company as crucial from the point of view of the effectiveness and efficiency of innovation implementation (e.g. production technology, materials used, etc.).

After assessing and analyzing the conclusions of the study, it may be necessary to conduct additional (detailed) checks in the process of organizational learning in order to discover the causes of the indications and to establish corrective actions (Beckman and Barry, 2007, p. 29). Self-evaluation of an innovative project is an important step to evaluate the completed project, as well as to review the organization in order to take possible corrective and preventive actions using selected organizational and management methods, e.g. Total Innovation

[3] Self-assessment is the first step in taking all corrective and preventive actions, as well as in the field of product, technology and organization improvement in an innovation project.

[4] Self-evaluation brings measurable benefits: systematic striving for improvement; consistency in defining what to do; focus on priority actions aimed at fast process improvement; a specific course of action, starting with individual organizational units and ending with the entire organization; the possibility of comparing and matching the achievements of the organization in its individual cells, as well as in relation to other competing companies from the same industry (see Kwintowski, 2015, p. 347).

Management—TIM, Total Quality Management—TQM, Lean Management, etc. during the implementation of innovations (Furr and Dyer, 2014, p. 5).

5. Conclusion

In conclusion, it is worth emphasizing that every project consists of difficult choices and decisions and is characterized by uncertainty and risk. Additionally, an innovation project is complex and can be interpreted in many ways, among which the conclusions presented in this article are worth considering. The research conducted so far shows that in the innovation implementation system, the most important elements are the strategy and culture of innovation, the features and effects of projects, and methods supporting the organization in the process of controlling the change caused by a new product or service during its dissemination.

Project transfer is not only a specific phase that lies between the project (deliverables) and the process, but a structure that consists of such elements as: project management, acceptance of the achieved deliverables and the complicated process of planning and preparing the operating system for production and distribution or maintenance of a new product or service.

Indeed, performance management in implementing innovation is holistic. It is generally accepted that little can be said about the future of innovation, therefore it is required that the developed project handover system, apart from self-regulating, is adaptable throughout the organization. Management still plays the most important role in the diffusion of new products or services, which rather than constantly improving the organization based on effects, most often deals with the analysis of deliverables that, contrary to appearances, are not easy to identify and measure.

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Koncepcja oceny projektów we wdrażaniu innowacji

Abstrakt: Innowacyjność to zbiór unikalnych projektów, portfeli lub programów projektów. Na obecną zmianę mają wpływ zjawiska, które znajdują się w organizacji i w jej otoczeniu. Nadal zadajemy sobie pytanie, szczególnie w czasie kryzysu pandemii, w jaki sposób budować zaufanie i bezpieczeństwo zespołów projektowych, jeżeli przyjęte założenia, które do tej pory były bezsporne, stały się wyzwaniem. Celem artykułu jest identyfikacja ograniczeń i barier, które towarzyszą zespołom projektowym podczas wdrażania innowacji, oraz prezentacja metod ich pokonywania. Dla osiągnięcia tego celu przygotowano propozycję własnych narzędzi diagnostycznych, ze zwróceniem szczególnej uwagi na zjawisko torowania (ang. *priming*) w projektowaniu oraz upowszechnianiu innowacji. Wybrano też czynniki determinujące skuteczność przekazywania projektów między zespołami. Według autora *priming* to usuwanie przeszkód, robienie przejścia w projektach innowacyjnych. Zaprezentowana autorska metoda oceny wewnętrznych bodźców określa funkcjonowanie zespołów projektowych. W artykule przyjęto tezę, że skuteczność transferu projektów innowacyjnych zależy od przygotowania zespołów projektowych do spełnienia tej misji w przedsiębiorstwie. Na podstawie wniosków z dyskusji – przekazywanie projektu innowacyjnego to wypełnienie oczekiwań interesariuszy w zgodności z kryteriami wykonalności, funkcjonalności i opłacalności projektu. Aby to osiągnąć, zespoły (przyjmujący/ przekazujący) powinny posiadać wspólne ustalenia co do ostatecznych wymogów dotyczących projektowanych produktów i oczekiwanej jakości.

Słowa kluczowe: zarządzanie innowacjami, projekty innowacyjne, wdrażanie projektów innowacyjnych, transfer innowacji, przekazywanie projektów