MANAGING TEAM RELATIONSHIPS IN THE IMPLEMENTATION OF THE ENTERPRISE IMPROVEMENT PROJECT

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The system of team relationship management during the implementation of the project to improve the activities of the enterprise raises a number of issues that are currently insufficiently studied. In particular, the differences that arise during the implementation of projects to improve the activities of the industrial enterprise; features of the project team performing such a project; opportunities to improve this management system. The article analyzes: knowledge about the specifics of project implementation at existing enterprises; features of the structure and functioning of project groups in such projects; components related to relationship management in the project team. Ways to improve the relationship management system in the project team are proposed.

Introduction

The problem of researching ways to improve the relationship management system in the project team in the implementation of the project to improve the activities of an industrial enterprise is actually a number of issues.

First, it is necessary to identify or state the differences that arise during the implementation of improvement projects in the industrial enterprise (as opposed to projects that are formed and implemented, so to speak, in the "free space"). Such differences not only exist, but also significantly affect the course and success of the project.

Secondly, it is necessary to understand the features of the project team that implements such a project, to identify or state the specifics of the relationship in the project team and the features of their management system.

Third, it is necessary to identify opportunities to improve this relationship management system, if it is appropriate and possible.

The listed tasks in a complex have never been solved yet; at least, it was not possible to find the sources devoted to such subject. And taking into account the fact

that a growing number of enterprises, especially enterprises with foreign investment, following the best practices of the world, are beginning to use the project approach in their activities, the topic is relevant and its relevance will only grow over time.

Analysis of publications

It is believed that the best results are achieved by those projects and organizations that take full account of the influence of stakeholders and competently build their relationships with all stakeholders, which creates value for all parties, not just project owners. In publications and research, attention is paid to various aspects of the project's interaction with stakeholders, but all these sources give a fragmentary account of the problem, do not give a complete picture of the process as a whole. It is important for the manager to see and present the whole process in order to understand the relationship and importance of consistent actions and tasks aimed at managing stakeholders.

Analysis of the publications of the studied subject area shows that attention is paid to various aspects of interaction with stakeholders, including: identification of the most important actors and assessment of potential problems [3, 4, 5, 8]; consideration of stakeholders in terms of power, impact on the project [4, 5, 9]; therefore, how the success of the main actors will be measured, the criteria of success [2, 9]; action planning and liaison with stakeholders [1, 4, 6, 7] and others.

Therefore, a large number of publications, on the one hand, and the locality of the issues addressed in them on the other, necessitates to summarize, systematize and present the whole set of tasks as a single process of interconnected sequential actions so that project managers can see and control the whole problem.

The purpose of the work

The purpose of the work is to develop proposals for ways to improve the relationship management system in the project team in the implementation of the project to improve the activities of industrial enterprises.

To do this, it is necessary to perform the following tasks:

– to analyze knowledge about the specifics of project implementation at existing enterprises;

– to determine the features of the structure and functioning of project groups in such projects;

– to identify components related to relationship management in the project team;

– to suggest ways to improve the management system of such relations.

The main research methods in the work are observation, analysis of secondary sources of information, expert analysis, theoretical analysis, systematization, grouping, generalization of results, calculation and analytical research methods, etc.

The scientific novelty of the results is that for the first time analyzed the cultural components of the relationship in the project group, proposed a tool for analyzing the affiliation of individual members of the project group to a particular business culture, created a test that can determine a person's predisposition to a particular course of action. It is determined by the person's attitude to the speed of obtaining a clear result and his attitude to risks.

The practical application of the obtained results is that it becomes possible to make management decisions that contribute to a better distribution of people on the project, prevent or effectively extinguish conflicts caused by differences between the worldviews of project team members.

The object of study is the relationship in the project group in the implementation of the project to improve the activities of industrial enterprises.

The subject of the study is the system of relationship management in the project group in the implementation of the project to improve the activities of industrial enterprises.

The research hypothesis is the existence of relationships in the project team and the project team with elements of the project environment that affect the project parameters (timing, quality, etc.), but are not taken into account in existing research

methods of relations in the project group and outside it, and therefore not managed variables. Conscious management of such relationships can reduce conflict in the project team and promote a clearer division of responsibilities and authority among project team members. This will increase the efficiency of the project team, as well as the efficiency of management of individual groups of works and the project as a whole.

Research results

The current ISO 21500, considering the subject area of project management and groups of processes at different stages of project deployment, does not give a complete picture of the stakeholder management process

Defining and satisfying the requirements of the parties to the project result forms the final profile (boundaries) of the project: the work to be performed and the image of the project product. The product description answers the question: what exactly will be obtained at the end of the project. Product presentation is a set of all characteristics of the project result. The basis on which performance of requirements to the maintenance of a product, its characteristics, properties and functions according to what the product will be accepted after completion of the project will be estimated is formed.

The formal structure is created to manage the relationship with the main forces around the project. Its functions depend on a number of factors: the flow of projects, the list of stakeholder groups, their interests and which interaction operations it will take control of, among those that the main actors have identified as the most important. The choice of alternative (in each case) will determine: communication requirements; legitimacy, legality; urgency of response; multivector activity, etc.

It must be assumed that:

1. The actions of stakeholders are determined mainly by external factors (laws, rules, instructions, personal motives, etc.) and are not subject to management "from the project".

2. The stakeholder is limited in his actions only by the deadlines for consideration of documents is not motivated to reduce them, and often these deadlines are generally delayed.

3. The project manager, who has no connection and skills to interact with stakeholders, has no power to influence the situation and any of his interactions with stakeholders may end either successfully or unsuccessfully, and then the actions will have to be repeated, and possibly not the last time.

4. The project manager is interested in starting the project on time and reducing the time for its preparation.

Based on these objective realities, we can describe the solution to the problem of obtaining approvals and permits in the form of the equation of random wandering.

For an ordinary untrained performer (or project Manager), or for the case of a project in a new country with a priori unknown structures of the consent-permission system, the random walk will be symmetrical and for the number of steps (units of time) n, according to the theory, it is most likely to pass only the square root of n steps to the goal, and in order to reach the goal, it will need n^2 steps.

For example, if it is necessary to perform 10 consecutive conciliatory and permitting works with an average standard duration of every 10 days, it probably takes about 100 days to obtain the necessary documents.

Usually such terms will seem to the customer too long and for all these works to accelerate process, less time will be taken away.

So, if in the case considered by us, let's assume the project manager will be defined for it 45 days (nine weeks), then even with the maximum probability he could pass only 6 [1] instances of coordination from 10 necessary.

Let's estimate on an example of the same 10 instances the minimum possible time for which the given set of tasks can be executed if to put them on the prepared formal structure intended for management of mutual relations in the project.

Assuming that a trained, involved specialist is able to pass each instance in just 1 day, then given the risks and taking into account the calendar of officials (usually

5 working days + 2 days off), even the most trained and motivated performer is unlikely to solve the problem of 10 instances in less than 18 days. However, this will save time (45-18 = 27 days) for the project.

Performing tasks related to the approval system will help the specialist to save a lot of time for the project. Moreover, the amount of time saved is easy to measure and can serve as an indicator of the effectiveness of relationship management.

Improving the process involves the development of procedures for the analysis of external and internal forces: identification of stakeholders; assessment of importance, impact; goals and values, power; potential threats; presentation of product and project content; measuring the effectiveness of relationship management; building a convenient communication system.

Building a convenient communication system involves: interim reports on the actual development of events and the current state of work; achieved intermediate results, values of criteria important for the interests of actors; intermediate supplies of part of the product. That together determines the frequency (frequency) of reporting and dissemination of information.

It is shown that the success of interaction management can be assessed through time control. The key to success lies in finding a solution (conditions) to reduce interaction time.

It is shown on the example of conciliation and permitting works that: actions of stakeholders are determined mainly by external forces (laws, rules, instructions, and personal motives). Stakeholders are limited in their actions only by the deadlines for consideration of documents and are not motivated to reduce them; the project manager is interested in starting the project on time and any reduction of time for interaction with external factors can significantly affect the start time of the project and the overall duration of work.

It is shown that for an unprepared performer the interaction time is subject to the equation of random wandering.

If the interaction management is put on the formal side, then the whole set of

tasks will be completed much faster.

In addition, time is easy to measure and can serve as a quantitative measure of the success of interaction management in the presence of the structure and without it.

Analysis of the significance of project stakeholders

Mitchell R.'s typology was used to analyze the project stakeholders, which is an extended version of the A. Mendelow model. Based on this model, an algorithm of significance analysis for any of the project stakeholders was developed. A calculation formula is proposed to determine the weight (significance) of the stakeholder, which uses weighted average expert assessments of the parameters: power, legality and urgency. It is proposed to present the project model in the form of sequential design of such fuzzy models; the projection of the previous one is the basis for the next. This project presentation allows assessing not only the degree of achievement of the project objectives, but also the degree of possibility of achieving the objectives of each of the key stakeholders.

It is believed that a balanced scorecard is just a way to reflect the results of the organization, but in fact this approach helps to combine the strategy of the organization with individual projects, resulting in increased productivity. One of the most important categories of a balanced scorecard is internal processes, which can be divided into innovation, improvement of existing processes and after-sales service. At the same time, when introducing innovations in the organization, it is necessary to remember about the key indicators which help to measure efficiency of these innovations.

In order for employees to be motivated and prepared to perform their duties, employers must closely monitor three points: employee qualifications, information and staff motivation. Improving these parameters leads to faster execution of routine processes and improve the quality of services. The use of a system of balanced scores means that each of these categories must have key indicators by which to assess the

effectiveness of management in a particular area. In our case, there are two main types of indicators - resultant and motivating. The values of the first type of indicators are determined by the results of work, and the second - is a guideline to which the organization should strive and which can affect the value of the resulting indicators.

As you know, today among Ukrainian project managers one of the most discussed topics is models and theories relating to stakeholders [10-12]. It has long been known that the best results are achieved by those projects and organizations that take full account of the influence of stakeholders and competently build their interaction with all their stakeholders [13], which creates value for all parties, not just shareholders.

In this case, the classic mechanisms of stakeholder management, taken from strategic management, cannot be translated into project management, as project management is rather tactical in nature and requires rapid, proactive action and equally rapid management of stakeholders.

The authors believe that it is more appropriate to assess the success of the project from the point of view of various stakeholders, where the resulting indicator is the degree of their overall satisfaction. This logic of expanding the factors that determine the success of the project leads to the understanding that it is most appropriate to assess the success of the project from the standpoint of all stakeholders, analyze them, balance their interests and manage them.

A. Friedman and S. Miles include in the list of stakeholders consumers, employees, local community, suppliers and distributors, shareholders, media, society as a whole, business partners, future and past generations, members of the scientific community, competitors, civil society, and representatives of stakeholders with their interests, investors, public authorities.

We will combine two lists of project stakeholders, dividing them into internal and external, and identify the key interests of each of the parties.

The project is influenced by:

– its internal stakeholders directly involved in the project implementation

(project manager, project management team, project team members, project management office if available, project investors, project suppliers);

– external environment of the project, internal environment of the company within which the project is implemented (creditors of the company, company shareholders, company management, business partners, employees, future generations, past generations, stakeholders, internal corporate consumers);

– the external environment of the company, all the business environment in which the organization operates (external consumers, local community, media, society as a whole, the scientific community, competitors, civil society, public authorities).

A. Mendelow analyzes stakeholders depending on their interests and their power, and, accordingly, on the ability to influence the activities of the enterprise and the desire to do so. An integrated indicator is the influence of a stakeholder, determined by multiplying power and interest. An extension of Mendelow's model is the typology of R. Mitchell [9]. The typology is based on three factors: legality, significance and urgency, i.e. legal legitimacy to give instructions, the strength of the stakeholder's influence on the company, the minimum required speed of responses to stakeholder inquiries. The parties, which have only one characteristic, are hidden, inactive. Stakeholders who have two characteristics are waiting. Stakeholders who have all three characteristics have the greatest influence.

Analysis of business cultures is a relatively new area of research. Therefore, there are not so many sources related to the culture of entrepreneurship. It is possible to indicate only the Russian work [14], which corresponds the least to our tasks, and the earlier, but also more interesting German work [15]. As a basis for analysis and research, we take the classification of business cultures, presented in [16], which is based on research performed by Rolf Ruttinger, but is not limited to them.

According to these works, there are four types of business cultures - depending on the speed of turnover and the level of risk (see fig. 1).
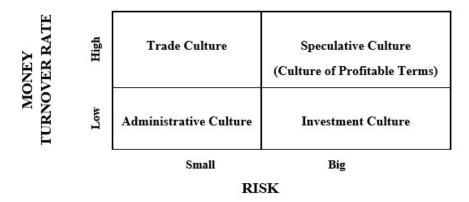
MONEY TURNOVER RATE

	Small	Big
High	Trade Culture	Speculative Culture (Culture of Profitable Terms)
Low	Administrative Culture	Investment Culture

RISK

Fig. 1. Enterprise Crop Types

The speed of turnover determines how soon the feedback signal will come from the market and it will be found out whether the decision was made correctly.

Risk is an assessment of the probability of losses and their magnitude in the event of an incorrect decision. This means, first of all, risky decisions and actions related to the functioning of the market.

As you can see, both parameters are quite market in nature. They require certain ways of doing business, making and implementing decisions within the firm; each culture involves staff with well-defined personal characteristics. This leads to the formation of different cultures of entrepreneurship. Let's talk about them in more detail.

Trade culture

This culture is characterized by a high rate of turnover with low risks. Trade culture is formed in trade and sales organizations, in insurance companies and in the sale of other "one-time" services, in part - in advertising and computer manufacturers. In many organizations, the divisions for advertising, sales, and supply have the trade culture.

A typical representative of a commercial culture is a small shop or stall.

Culture is characterized by:

– the speed of turnover is high - the proceeds come every day, you can immediately see the results of decisions;

– risks are low - unsuccessfully invested in the goods of one name cannot ruin

the entrepreneur, he compensates for losses due to other - "running" goods;

– success depends more on the number of contacts with consumers than on the quality of these contacts, and is measured by sales: one unsuccessful contact - not a tragedy, and one successful - success, but also, as a rule, small;

– employees - energetic people who are able to actively act, try, communicate; they are usually friendly, attractive, eloquent, with a sense of humor, but without great spiritual demands;

– communications are developed - the spirit of collectivism, a sense of involvement in the case is formed;

– team members willingly meet during non-working hours, hold joint seminars, picnics, meetings, excursions;

– the team game is well conducted - the need to communicate with consumers is compounded by the need to share experiences and sales technologies;

– management decisions are simple - it is easier to put a new product in the window and try to "go - will not go" than to conduct marketing research;

– the main factor of motivation is belonging to a successful team - financial incentives are not always of paramount importance for employees;

– projects in trade culture are usually short-term, stakeholders who form tasks constantly interfere in the course of the project, on the move changing not only the parameters, but sometimes - and the task of the project.

The main disadvantages of this culture are the following:

– quantity prevails over quality - the desire to sell faster leads to the fact that the consumer's problems that arise in connection with the purchase of goods are not given due attention;

– the focus is on short-term success - winning today is more important than its long-term consequences, which will come "not yet";

– low resistance to crises - employees lack the endurance, patience and nerves to overcome obstacles, it is easier for them to leave than to worry about solving the problem;

– own department is more important for employees than the company;

– leave the company not one by one, but whole units at once;

– employees do not grow old - staff turnover is high, in some companies the staff changes almost completely during the year, so there is no one to develop the culture.

Speculative culture (culture of profitable terms)

This culture is characterized by a high rate of turnover with risks of medium and high degrees. Speculative culture is formed wherever there are quick profitable transactions with securities, means of payment, raw materials, etc. However, elements of this culture are in such areas as fashion, cosmetics, professional sports, advertising, financing of risky projects.

Within organizations, elements of speculative culture can be found in supply, marketing and venture capital.

A typical representative of this culture is a stockbroker.

Culture is characterized by:

– the speed of circulation of funds is high - almost every day there is a chance to win (or lose!), It is important not to miss it;

– in this culture they like quick deals and quick money;

– risks are high - in one day you can get rich, in one night - go bankrupt;

– success - usually has a financial form: in the form of winnings, bonuses, rewards or profit shares; dexterous employees are also given credit in the form of the creation of cults of "stars" and personalities;

– employees - speculative culture attracts, first of all, young (or spiritually young) vain people with a pronounced individualism, inflated arrogance and propensity to risk (sensitivity and emotionality cannot be shown, even if they exist), promotes the development of militant and aggressive, firmness in decision-making, ability to live in conditions of constant competition;

– communications are short and most effective - on the stock exchange, for example, communicate mainly with gestures and short remarks;

– team play is not conducted - in this culture "everyone for himself", feverish activity and constant competition do not allow the development of stable and mature groups, staff turnover is very high;

– the result depends on a large number of uncontrolled variables, it contributes to the development of employees a huge number of all sorts of superstitions, superstitions and rituals that "bring success";

– management decisions, recognized as modern, become a ritual - others should have the impression that everything is thought out, everything is done to ensure success and avoid failure;

– the main factor of motivation is a quick and big reward, of course - money and "stardom";

– projects for speculative culture are generally unacceptable - very short deadlines and high risks.

Speculative culture is a good testing ground for business skills. But it is a bad place for permanent work, where, due to constant nervous tension, people often get severe chronic diseases.

The main disadvantages of speculative culture are the following:

– it is focused on making a profit without productive work - you can "speculate" only what has already been created;

– the interests of the consumer are completely ignored - your win is more important, no matter at whose expense it was not achieved;

– reward stimulates the worst qualities of the employee - myopia, aggression and individualism are rewarded;

– failures are not talked about - they "did not exist";

– culture is practically not broadcast - individualism, like the passion for bachelor life, is not inherited.

Administrative culture

This culture is characterized by slow feedback at low risk. Strategically, all

organizations belonging to the administrative culture are aimed at service, service.

An administrative culture is being formed in public services, in provision, at enterprises in well-established and protected industries (including education), in large administrative firms, administrations of all levels, and in part in banks and insurance companies. Within the organization, the administrative culture is inherent in the structures aimed at servicing production processes: planning, administrative, control units, accounting services.

A typical representative of this culture is any structure of administrative management, higher education institution (HEI).

Its main parameters:

– the speed of turnover is low - the results of today's decisions may be fully manifested in years and even decades;

– risks are low - the official-administrator risks little, making this or that decision - all the same on a way of this decision to realization there are still many executors on whom it is always possible to transfer responsibility for result;

– employees - mostly neat and thorough people, at the same time careful, picky, meticulous, submissive and able to adapt;

– success does not depend on what has been done, but on what has not been done - as long as everything works fine, there are no claims, and this in itself is considered a success; troubles begin when something goes wrong (we pay attention to problems with heat or electricity only when they exist);

– in the life of the company there are no successes or failures - reasons for holidays, joy and pleasure - internal events: anniversaries, promotions, birthdays, vacations and so on;

– communications are detailed and emphatically hierarchical - there are lists of functional duties and responsibilities, it is not customary to go to the top boss "through the head" directly and so on;

– team play is conducted without enthusiasm, as needed - the cooperation of employees is relative and is associated mainly with the performance of official

functions;

– management decisions are multi-stage - the procedure is more important than the result, decision-making takes a long time, all issues are recorded, the decisions themselves are insured on all sides so as not to be "extreme" if something goes wrong; there is a well-established system of document circulation and preservation of documentation to prove his innocence if necessary;

– the main factor of motivation is recognition - titles and titles are more important than money, because they allow you to occupy a higher position in the hierarchy;

– projects in administrative culture are difficult to start, but once the project is accepted and approved, it can, in many cases, lead to results, especially if we remember that culture is focused on the process, and the result is the result of a well-organized process.

The main disadvantages of this culture are the following:

– the administrative system and, consequently, the culture (but not necessarily the people who work there) have a bad reputation, although everyone knows that without administration, it is associated with bureaucracy, absurdity, inefficiency and inability to do what is necessary, which is true sometimes observed;

– the process is more important than the result - the system requires the implementation of all orders (both reasonable and meaningless), performance appraisal is often issued on formal grounds, there is almost no relationship between result and remuneration, promotions depend more on experience than on actual success;

– employees live in an "artificial" world - many criteria for the quality of decisions are artificial or formal, the internal assessment of the importance of events often does not coincide with the external, some decisions cannot be explained to the environment;

– the organization forms and broadcasts an artificial culture, detached from real life - the lack of results that are directly observed, can and often leads to

formalism, bureaucracy, the pursuit of "indicators" - to the detriment of the case;

– great inertia - it takes a lot of time to make any decision, and once the decision is sometimes very difficult to cancel (try to prove to the official that you are alive, if according to the documents you died!).

Investment culture

This culture is characterized by slow feedback at high risk. Has a strong focus on the future.

Investment culture is formed in mining companies, banks, investment companies and funds, in construction, in part - in the military-industrial complex and in the manufacture of means of production (machine tools, engineering). Within organizations, the investment culture may include units that determine the long-term strategy of the organization: senior management, development departments, investment management departments, design and engineering services, and so on.

A typical representative of this culture is a design bureau that develops large projects.

The main points of the investment culture are:

– the turnover rate is low - large investments are made over a number of years, and the criterion for the correctness of the investment - the end result - appears only after these terms;

– the risks are high - the cost of drilling, say, one oil well is millions of dollars, and if there is no oil - all these funds are wasted, because neither use this well nor "rearrange" it elsewhere is impossible;

– employees - thorough, careful, careful people who work patiently and persistently, attach great importance to experience, authority and professionalism: those who hold high positions, risk not only their careers but also the future of their enterprise;

– job growth of employees is stretched in time - the process of gaining credibility is as long as the terms of investment, patience is needed for job growth,

impatient go by themselves;

– success is better perceived from the outside - in the company itself it is a natural consequence of long hard work of the whole team, because the company itself is already busy with the next projects;

– communications are developed - employees communicate often, discuss everything in detail, behave politely and cautiously at joint meetings;

– team play is conducted amicably - joint decisions made in conditions of uncertainty unite people, everyone understands the interdependence;

– management decisions are careful - of course, decisions are made at the top, are subject to very careful verification - no mistakes can be made; once the agreements and decisions are made, all parties involved in the project are complied with;

– the main motivating factor is the reliability of the workplace - a person working in the investment culture must be sure that his situation will not deteriorate, at least until the end of the project, and with good work and much longer; a slow career involves promotion on real merit, recognition must be earned;

– projects in the investment culture are performed best, because employees usually have a good understanding of the dependence of project implementation (achievement of project results) on each of them.

In an investment culture, careers, products and profits do not grow fast, but everything that is created is reliable. It accelerates the great discoveries and development of science, but does so extremely slowly.

The main disadvantage of the investment culture is its sensitivity to short-term market changes and related problems of current liquidity.

Project-recommendation part

Based on all the above, it was considered appropriate to develop a prototype test that would diagnose the propensity of each member of the project team to a particular business culture and would determine the characteristics of the project

team in relation to the culture of the project it is working on. In this paper, we will consider only four "basic" cultures.

A simple (for the respondent) test, however, has a complex (in terms of processing the results) interpretation. To determine the respondent's propensity for a certain course of action, it is necessary:

1. Separately determine his propensity for quick action and risk.

2. Separately determine the respondent's affiliation to a particular culture (for this you only need to look at his answers to the relevant pairs of questions).

3. Compare the results of the first and second items described above, and make a final opinion about the respondent's ability to function successfully in terms of interaction with representatives of a particular business culture.

There are, of course, attempts to use tests. For example, V. A. Spivak suggests using the test of psychological atmosphere in the group according to A. F. Fiedler [17], but it is clear from the list of variables that we are not talking about the culture of entrepreneurship here (see table 1).

Table 1

Psychological Atmosphere Test in a Group from A.F. Fidler

No.		1	2	3	4	5	6	7	
1.	Friendliness								Enmity
2.	Consent								Disagreement
3.	Satisfaction								Dissatisfaction
4.	Productivity								Unproductivity
5.	Warmth								Coldness
6.	Collaboration								Inability
7.	Mutual support								Hostility
8.	Enthusiasm								Indifference
9.	Interest								Boredom
10.	Success								Inefficacy

In the test points (cells) are marked according to the Ch. Ostud's scale. The average profile which is considered as an estimation of psychological atmosphere in collective is formed. The total amount of points divided by the number of

respondents gives an integrated assessment.

In order to improve the quality of the test, experts on these issues, certified project managers Antonenko S.V. and Mazurkevich O.I. were invited to work. They provided their advice and comments on the developed test.

Initially, tables of semantic units were created from the descriptions of cultures, which would characterize these cultures (tables 2-5).

Table 2

Trade Culture (TC)

No.	Scale	Interpreter	Text	Source
1.	TC	Young		
2.	TC	Active		
3.	TC	Going for experiments		
4.	TC	Friendly		
5.	TC	Attractive		
6.	TC	Eloquent		
7.	TC	Humor		
8.	TC	Important team support		
9.	TC	Tend to make quick decisions		
10.	TC	Tend to make simple decisions		
11.	TC	Willing to try new in practice		
12.	TC	Sense of belonging		
13.	TC	The spirit of collectivism		
14.	TC	The spirit of society		
15.	TC	Willing to communicate		
16.	TC	Exchange views		
17.	TC	Possibility of joint entertainment during non-working hours		
18.	TC	Competition		
19.	TC	Meetings		
20.	TC	Meeting		
21.	TC	Seminars		
22.	TC	Excursions		
23.	TC	Party		
24.	TC	Wit competitions		
25.	TC	Choral singing		
26.	TC	Work stories in free time		
27.	TC	Belonging to a successful team is more important than financial incentives		

28.	TC	Quantity is more important than quality		
29.	TC	Success is not measured by risk		
30.	TC	Successes are celebrated		
31.	TC	Dominated by thinking of short-term success		
32.	TC	Cannot withstand crises		
33.	TC	Do not age - high fluidity		
34.	TC	The success of the work depends on the number of contacts with customers and the persistence in finding deals		
35.	TC	A separate agreement in principle does not lead to bankruptcy		
36.	TC	In a short time you can see what is on the market and what is not		
37.	TC	Without great spiritual inquiries		
38.	TC	Lead a good team game		
39.	TC	Great desire to act		
40.	TC	Success is measured by sales		
41.	TC	Financial incentives do not always work		
42.	TC	Feel the connection, first of all, with the team and less - with the company		
43.	TC	Collectively move from one "set of jobs" to another		

Table 3

Speculative culture = culture of profitable terms (SC)

No.	Scale	Interpreter	Text	Source
1.	SC	Quick use of chances		
2.	SC	Young people		
3.	SC	Individualists		
4.	SC	High arrogance		
5.	SC	Honorable		
6.	SC	Fighting traits		
7.	SC	Aggressive traits		
8.	SC	Firmness in decisions		
9.	SC	Competitiveness		
10.	SC	Excitement		
11.	SC	Sensitivity (-)		
12.	SC	Emotionality (-)		
13.	SC	Communication is tight		
14.	SC	Communication is fast		
15.	SC	Cooperation is relative		
16.	SC	Team game - disgusting		

No.	Scale	Interpreter		
17.	SC	Febrile activity		
18.	SC	Inclination to superstition		
19.	SC	Quick deals		
20.	SC	Quick receipt of money, result		
21.	SC	Do not talk about failures		
22.	SC	"There were no failure"		
23.	SC	Creation of cults ("stars", personalities)		
24.	SC	Methods - rituals!		
25.	SC	Constant voltage		
26.	SC	"God will give the day - God will give food"		
27.	SC	Tendency to thrills, adrenaline		
28.	SC	Desire to be aware, (rapid change)		
29.	SC	The stage on which the actors play		
30.	SC	The main motive - the rapid receipt of large profits without effort		
31.	SC	The main motive -making a large profit without work		

Table 4

Administrative Culture (AC)

No.	Scale	Interpreter	Text	Source
1.	AC	Accuracy		
2.	AC	Thoroughness, Fundamentality		
3.	AC	Caution		
4.	AC	Meticulousness		
5.	AC	Pedantry		
6.	AC	Ability to adapt		
7.	AC	Thoughtful decisions		
8.	AC	Insure the decision		
9.	AC	Communication is thorough		
10.	AC	Respect for the hierarchy		
11.	AC	Important how to do		
12.	AC	Not too important what to do		
13.	AC	Important form		
14.	AC	Less important result		
15.	AC	Automatic promotion in career positions		
16.	AC	Protocol records		
17.	AC	Document storage system - to prove innocence		
18.	AC	The procedure is more important than the result		
19.	AC	All orders are carried out, including nonsensical ones		

No.	Scale	Interpreter	Text	Source
20.	AC	Trained relations with the outside world (due to the inability to explain the meaning of what is being done)		
21.	AC	Important titles (more important than money)		
22.	AC	Bureaucracy		
23.	AC	Thoroughness		
24.	AC	Streamline actions		
25.	AC	Implement management actions		
26.	AC	An important stage in your career is a reason to celebrate		
27.	AC	Anniversary - an occasion to celebrate		
28.	AC	Career promotion - a reason to celebrate		
29.	AC	Birthday is an occasion to celebrate		
30.	AC	Dismissal - a reason to celebrate		
31.	AC	Occasion for celebration - the employee himself (out of activity)		
32.	AC	Fear of mistakes		

Table 5

Investment Culture (IC)

No.	Scale	Interpreter	Text	Source
1.	IC	Future orientation		
2.	IC	Activities at high risk		
3.	IC	Thoroughness		
4.	IC	Caution		
5.	IC	Patience		
6.	IC	Persistence		
7.	IC	The solution is at the top		
8.	IC	Decisions are subject to careful review		
9.	IC	Without rights for error		
10	IC	Great value of experience		
11	IC	Respect for authority		
12	IC	Respect for professional knowledge		
13	IC	Preservation of once adopted agreements		
14	IC	Saving once made decisions		
15	IC	Communication is frequent		
16	IC	Discussion of everything in detail		
17	IC	Politeness in communications		
18	IC	Obvious interdependence		
19	IC	Authority is gained for a long time		
20	IC	Professional growth is slow		
21	IC	Everything that is created is reliable		

The first thing that catches your eye is the unequal number of characteristics that describe each culture - from 43 to 22. In addition, it is intuitively clear that each such characteristic has its own "weight" and these "weights" are not the same for different characteristics within each culture.

Then the approach was changed and statements were formulated that would characterize each of the cultures in such parameters as feedback rate and risk. Some of these statements concerned only one of the parameters (i.e., did not characterize any one culture), and some - both, ie, allowed to identify a person's propensity for a particular culture of entrepreneurship. Only 14 such statements could be formulated, which is not enough for a full-fledged test (table 6).

Table 6

Combined Affirmation

No.	Affirmation
1.	You believe that success is mainly caused by activity, speed of action
2.	You think it's often easier to try than to wait for research
3.	You believe that risk is a noble thing, and those who do not take risks do not drink champagne
4.	You think it's important to belong to a successful team
5.	It is good to work in a team that you are happy to meet during non-working hours
6.	You prefer to work alone, when the result depends only on you
7.	You have mascots for success
8.	You believe that success comes from the long work of the whole team
9.	You believe that most decisions require careful preparation
10.	You believe that the crisis must be endured without changing jobs
11.	You believe that the documentation should be kept carefully so as not to be found guilty
12.	You believe that you need to follow all the instructions of management - still the responsibility will fall on him
13.	You believe that once the agreements are made, they must be kept
14.	You believe that authority is gained over a long period of time and deserves respect

For each of the test statements, the affiliation of the answers to a certain business culture was determined (table 7).

Table 7

Belonging of Answers to a Particular Culture of Entrepreneurship

No.	Affirmation	TC	SC	AC	IC	Culture	Notes
1.	You believe that success is mainly caused by activity, speed of action	- V ↑ R ↓	+ V ↑ R ↑	-V ↓ R ↓	+ V ↓ R ↑		
2.	You think it's often easier to try than to wait for research	- V ↑ R ↓	+ V ↑ R ↑	-V ↓ R ↓	+ V ↓ R ↑		
3.	You believe that risk is a noble thing, and those who do not take risks do not drink champagne	- V ↑ R ↓	+ V ↑ R ↑	-V ↓ R ↓	+ V ↓ R ↑		
4.	You think it's important to belong to a successful team	+ V ↑ R ↓				TK-1	
5.	It is good to work in a team that you are happy to meet during non-working hours	+ V ↑ R ↓					
6.	You prefer to work alone, when the result depends only on you		+ V ↑ R ↑			CK-1	
7.	You have mascots for success		+ V ↑ R ↑				
8.	You believe that success comes from the long work of the whole team	-V ↑ R ↓	-V ↑ R ↑	+ V ↓ R ↓	+ V ↓ R ↑		
9.	You believe that most decisions require careful preparation	-V ↑ R ↓	-V ↑ R ↑	+ V ↓ R ↓	+ V ↓ R ↑		
10.	You believe that the crisis must be endured without changing jobs	-V ↑ R ↓	-V ↑ R ↑	+ V ↓ R ↓	+ V ↓ R ↑		
11.	You believe that the documentation should be kept carefully so as not to be found guilty			+ V ↓ R ↓		AK-1	
12.	You believe that you need to follow all the instructions of management - still the responsibility will fall on him			+ V ↓ R ↓			
13.	You believe that once the agreements are made, they must be kept				+ V ↓ R ↑	IK-1	
14.	You believe that authority is gained over a long period of time and deserves respect				+ V ↓ R ↑		

From this table we see that the scores given by the respondents are interpreted differently in different cases. Thus, the answers to questions 4 and 5, 6 and 7, 11 and 12 and 13 and 14 are aimed at identifying the respondent's closeness, respectively, to the trade (TC), speculative (SC), administrative (AC) or investment (IC) business culture. In these cases, only the coincidence of the answer with the "key" multiplied by the corresponding coefficient is subject to interpretation. Otherwise, the answer is not interpreted.

Let's make the necessary calculations for two options. We will see the following: option 1 in table 8, and option 2 in table 9.

Table 8

The Results of Calculations (Version 1)

No.	Affirmation	-	-3	-2	-1	0	1	2	3	TC-	TC+	SC-	SC+	AC-	AC+	IC-	IC+
1.	You believe that success is mainly caused by activity, speed of action						1										
2.	You think it's often easier to try than to wait for research					1											
3.	You believe that risk is a noble thing, and those who do not take risks do not drink champagne					1											
4.	You think it's important to belong to a successful team							1									
5.	It is good to work in a team that you are happy to meet during non-working hours							1									
6.	You prefer to work alone, when the result depends only on you			1													
7.	You have mascots for success					1											

№	Statement															
8.	You believe that success comes from the long work of the whole team						1									
9.	You believe that most decisions require careful preparation					1										
10.	You believe that the crisis must be endured without changing jobs						1									
11.	You believe that the documentation should be kept carefully so as not to be found guilty							1								
12.	You believe that you need to follow all the instructions of management - still the responsibility will fall on him		1													
13.	You believe that once the agreements are made, they must be kept							1								
14.	You believe that authority is gained over a long period of time and deserves respect							1								

If we perform the calculation under option 1, the respondent will equally likely belong to either a trading or an investment culture. But, having checked the results of option 2, we see that it is still largely inclined to the investment culture. From the point of view of the project team, this is interesting, because it is possible to expect from him informed decisions and thoughtful work on the project.

Table 9

The Results of Calculations (Version 2)

No.	Affirmation	TC	SC	AC	IC	Culture	Notes
1.	You believe that success is mainly caused by activity, speed of action	- V↑ R↓	+ V↑ R↑	- V ↓ R ↓	+ V↓ R↑		
2.	You think it's often easier to try than to wait for research	- V↑ R↓	+ V↑ R↑	- V↓ R↓	+ V↓ R↑		
3.	You believe that risk is a noble thing, and those who do not take risks do not drink champagne	- V↑ R↓	+ V↑ R↑	- V↓ R↓	+ V↓ R↑		
4.	You think it's important to belong to a successful team	+ V↑ R↓				TC-1 =+8	
5.	It is good to work in a team that you are happy to meet during non-working hours	+ V↑ R↓					
6.	You prefer to work alone, when the result depends only on you		+ V↑ R↑			SC-1 =0	
7.	You have mascots for success		+ V↑ R↑				
8.	You believe that success comes from the long work of the whole team	- V↑ R↓	- V↑ R↑	+ V↓ R↓	+ V↓ R↑		
9.	You believe that most decisions require careful preparation	- V↑ R↓	- V↑ R↑	+ V↓ R↓	+ V↓ R↑		
10.	You believe that the crisis must be endured without changing jobs	- V↑ R↓	- V↑ R↑	+ V↓ R↓	+ V↓ R↑		
11.	You believe that the documentation should be kept carefully so as not to be found guilty			+ V↓ R↓		AC-1 =+4	
12.	You believe that you need to follow all the instructions of management - still the responsibility will fall on him			+ V↓ R↓			
13.	You believe that once the agreements are made, they must be kept				+ V↓ R↑	IC-1 =+8	
14.	You believe that authority is gained over a long period of time and deserves respect				+ V↓ R↑		
		TC-2 =0	SC-2 =+4	AC-2 =+5	IC-2 =+9		

Its shortcomings will be the non-perception of speculative culture (zero according to the first option) and, not surprisingly, its insufficient perception of the "native" (seemingly) trade culture (zero according to the second option).

These data are very difficult to detect when forming a project team, but they lead to problems during the project. Therefore, the author considers it necessary to continue the experiments and eventually offer a new, brought to mass use, Test of Communal Team Unity (STU).

Conclusions

The paper solves current problems related to the management of processes of interaction with project stakeholders, reducing the time to solve problems that usually arise in the initial stages of the project and began to study the means of managing the cultural factors of the project.

The scientific novelty of the work is as follows:

1) it is shown that many problems associated with the project implementation lie in the field of environment. To succeed, the manager must study and try to manage, or influence the external forces on which the result depends.

2) it is shown that the means of managing environmental factors include both organizational measures and process development strategies. To determine the formal organization that supports the interaction, it is proposed to use the structuring of the process in order to identify important from the point of view of customers, and the success of the project of interdependence operations.

3) one of the characteristics of the quality of the management process is proposed to use the indicator of the achieved level of interaction of process participants. A mathematical description of the characteristic we need is given, which evaluates the achieved level of control and influence. The indicator determines the total value of all time spent on interaction with important people and organizations in the project environment.

4) an increase in the level of control and influence is accompanied by an increase in the cost of performing these functions and a simultaneous decrease in losses that are possible in the absence of such control (influence). A graphical interpretation of the integrated cost-loss curve due to the achieved level of control (impact) is given. The possibility of the existence of the optimal value (or close to the optimal) of the costs of managing stakeholders is shown.

5) it is shown that the main task of decision-making is to find a compromise between achieving the desired level of control (influence) and the overall organizational costs. The model of counter dynamics of change of losses and expenses owing to strengthening of control of factors of external environment is presented graphically. The integral curve of interdependence of the accepted decisions directed on strengthening of the power (influence) and reduction, as a result, of risk of losses from uncontrollability of process is resulted.

6) both models indicate the effectiveness of the decisions made and can be used in the calculations and analysis of project actions, showing whether the decisions were made correctly and to what extent in terms of the interests of actors interested in the project.

7) to analyze the stakeholders of the project, it is proposed to use the typology of R. Mitchell, which is an extended version of the A. Mendelow model.

8) on the basis of this model the algorithm of the analysis of significance for any of the interested parties of the project is developed.

9) a calculation formula is proposed to determine the weight (significance) of the stakeholder, which uses weighted average expert assessments of the parameters: power, legality and urgency.

10) the presentation of the project model in the form of consecutive designing of similar fuzzy models is offered, the projection of the previous of which serves as the basis for the further. This project presentation allows to assess not only the degree

of achievement of the project objectives, but also the degree of possibility of achieving the objectives of each of the key stakeholders.

That is, knowing the parameters of the models by which they are characterized, we can begin to implement them in the form of analysis tools.

It also becomes possible to make management decisions that promote a better distribution of people on the project, prevent or effectively extinguish conflicts that are caused by differences between the worldviews of project team members.

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