MINISTRY OF EDUCATION AND SCIENCE OF UKRAINE

Sumy State University

Academic and Research Institute of Business, Economics and Management Department of Management named after Oleg Balatskyi

of Department
 Ihor REKUNENKO
2023.

QUALIFYING WORK

to obtain bachelor's educational degree in the specialty 073 "Management", educational-professional program "Management"

on the topic:

"Organizational and communication aspects of the environmental projects implementation (Plastiks crypto-project case)"

Student of the group M-91an

Vladyslav NELIN

The qualifying work contains the results of own research. The use of ideas, results and texts of other authors are linked to the appropriate source.

Vladyslav NELIN

Advisor PhD, Assistant Ihor VAKULENKO

MINISTRY OF EDUCATION AND SCIENCE OF UKRAINE SUMY STATE UNIVERSITY

Academic and Research Institute of Business, Economics and Management Oleg Balatskyi Department of Management

I COMEIDA

Head of Department	Ihor REKUNENKO
	2023

ASSIGNMENT FOR QUALIFYING WORK

to obtain bachelor's educational degree in the specialty 073 "Management", educational-professional program "Management"

on the topic:

"Organizational and communication aspects of the environmental projects implementation (Plastiks crypto-project case)"

Student of the group M-91an

Vladyslav NELIN

- 1. The topic of the work **« Organizational and communication aspects of the environmental projects implementation (Plastiks crypto-project case)**» approved by order №0569-V dated 25.05.2023.
- 2. The deadline for submission of the completed work by the acquirer **09.06.2023**.
- 3. The purpose of the qualifying work: to investigate the communication and organisational aspects of crypto projects and build a model for evaluating communications in a project, to draw conclusions about the relevance of using evaluation..

- 4. Object of study: The object of research is the communication and organizational aspects used in a crypto project.
- 5. The subject of the study is the analysis of the communication model to improve efficiency. In connection with the objective, the paper has a structure:
- 6. Qualification work is performed on the basis: Crypto project "Plastiks".
- 7. Approximate plan of qualifying work, deadlines for submission of sections to the manager and content of tasks to fulfill the set goal.

№ of	Title of the section	Submission
order		deadline
I	Theoretical and methodological basis of project	17.05.2023
	management in the cryptocurrency environment	
II	Organizational aspects of the project, in the context of the	25.05.2023
	plastiks crypto projectm	
III	Analysis Of Communication In Crypto Projects	05.06.2023

The content of the tasks for fulfilling the set goal of the bachelor's qualifying work: In section 1, the student must define the concept and meaning of project management in the field of cryptocurrencies and project communications, the impact of communications on project management.

In section 2, the student will present a historical overview and description of the Plastiks project, analyse organisational aspects, historical information and identify possible risks to the project

In section 3, the student must define the goals of analysing the external and internal communication aspects of the project, propose solutions for analysing communications for projects like Plastiks

8. Consultations on work performance:

Section	Surname, initials and position of the supervisor/consultant	Signature, date	
		Issued the task	I accepted the task
			task

1	I. Vakulenko, PhD, Assistant	08.05.2023	08.05.2023
2	I. Vakulenko, PhD, Assistant	17.05.2023	17.05.2023
3	I. Vakulenko, PhD, Assistant	25.05.2023	25.05.2023

9.	Issue	date	of the	assignment	08.05.2023 .
----	-------	------	--------	------------	---------------------

Advisor PhD, Assistant Ihor VAKULENKO
Tasks to be completed received Vladyslav Nelin

ANNOTATION

The paper considers the basic principles of project management and defines the role of communication processes in project development. In particular, using the example of the successful Plastiks project, typical organizational and communication aspects and methods of their analysis are discussed.

Particular attention is paid to communications within the project team. The importance of internal communications for the effectiveness of teamwork and the achievement of project goals is explored. The analysis of internal communications helps to identify the strengths and weaknesses of the communication process and find ways to improve them.

The results of the study emphasize the importance of effective external communication as a key element of project development. It is noted that high quality communication helps to increase the audience and value of the project by building trust and interaction with users.

The structure and volume of the bachelor's thesis. The thesis consists of an introduction, three chapters, a conclusion, a list of references, consisting of 22 titles. The volume of the bachelor's work is 48 pages, including 4 tables, 2 figure and a list of references and 2 appendixes.

Identify and analyze organizational and communication aspects in project management with possible ways to analyze and improve communication in the project on the example of the Plastiks crypto project

In accordance with the main goal, the following tasks were defined:

- to study project management and its features, tasks, and goals;
- analyze theoretical material on project management, blockchain, and crypto projects;
- to analyze aspects of the Plastiks project to create an idea of projects created on the basis of blockchain technology and find out their features;

- to build an analytical model for the communication aspects of crypto projects like Plastiks:
- to put forward recommendations for the application of the analytical model

The object of the study is organizational and communication aspects inherent in crypto projects

The subject of the study is the use of communication model analysis to improve work efficiency.

Research Methods. Personal research of materials related to the discipline of project management. Comparing facts, analyzing, creating a model for analyzing communications

Approbation of the results. The main results and the results of the bachelor's work were presented at the scientific conference at the economic faculty of Sumy State University (Sumy, 2023).

KEYWORDS: PROJECT MANAGEMENT; COMMUNICATIONS;
CRYPTOCURRENCIES; BLOCKCHAIN; COMMUNICATION MANAGEMENT;
ENVIRONMENTAL PROJECT, SURVEY ANALYSIS.

LIST OF CONTENT

INTRODUCTION

With the growth rate, mankind is setting more and more diverse goals in all areas to improve, enhance and maintain its life. A large number of needs creates a demand for their satisfaction. In order to achieve results, organizations target different aspects of human consumption. Some processes are long-term and require constant focus on the process and do not stop, while others have a clearly defined timeframe, such as software development, and will be stopped when the defined end goal is reached. To achieve the goal, projects are created that have a clear focus and duration.

Projects as a part of the organizational process of performing an action have already taken root as a concept not only in technical fields, but also in other fields. We can now see new large and small projects being created. Each has its own goal, its own budget, and the size of the team working on it. The project manager's goal is to build processes in the middle of the project to effectively achieve the desired result. The communication component plays an important role in the project management process. The flow of information and resources within the project, as well as the exchange with the environment, must be regulated to properly distribute the load on the process links.

The rapid development of technology makes it possible to create projects built on blockchain tools. Such projects are not popularized in society and have their own specifics. This specificity raises questions about communication opportunities and their implementation.

The purpose of this paper is to to investigate the communication and organisational aspects of crypto projects and build a model for evaluating communications in a project, to draw conclusions about the relevance of using evaluation.

The object of research is the communication and organizational aspects used in a crypto project.

The subject of the study is the analysis of the communication model to improve efficiency.

In connection with the objective, the paper has a structure:

- the first part presents the theoretical and methodological basis to highlight the existing aspects of project management, cryptocurrency projects, and the organization of communications during the project;
- the second part presents information on the Plastiks environmental project, which will consider the goals, relevance, structure, strategic decisions, challenges, and risks, on the basis of which the project will be evaluated;
- in the third part, a model for analyzing the connections and channels of a project such as Plastiks is built. Based on the information for the project, a questionnaire was compared to analyze external and internal communications. Depending on the results, suggestions for improving communication are put forward, taking into account the importance of existing aspects;
- the conclusion summarizes the project's evaluations and the importance of communications. Their impact on the success of the project is highlighted, as well as their application by newly created projects.

KEYWORDS: PROJECT MANAGEMENT; COMMUNICATIONS; CRYPTOCURRENCIES; BLOCKCHAIN; COMMUNICATION MANAGEMENT; ENVIRONMENTAL PROJECT, SURVEY ANALYSIS.

CHAPTER I THEORETICAL AND METHODOLOGICAL BASIS OF PROJECT MANAGEMENT IN THE CRYPTOCURRENCY ENVIRONMENT

1.1 The concept of project management

This section is devoted to the concept of project management. This section will explain the basic terms, the relevance of the topic, and provide historical information on the development of project management.

Before discussing the concept of project management, it is important to define some basic terms related to this field. Project management refers to the practice of project management, which includes planning, organizing, executing, and controlling various aspects of a project to achieve its goals.

Key terms used in project management include:

- Project a temporary venture that creates a unique product, service, or result. It has a beginning and an end, as well as defined goals, constraints, and resources.
- Project management is an applied discipline that includes planning, organizing, managing, and controlling projects. It involves managing projects from start to finish to achieve their goals.
- Risk is an undesirable event or situation that can affect the successful completion of a project risk includes unfavorable events (negative risks) and opportunities (positive risks).
- Project life cycle is a sequence of phases that a project goes through from its inception to completion.
 - Project team is a group of people who perform project work to achieve its goals[1].

The concept of project management is a systematic approach to managing projects to achieve their goals. It encompasses defining, planning, organizing, managing, and controlling all aspects of a project, including scope, resources, timeline, budget, and quality.

Effective project management is becoming critical to the success of organizations and the implementation of important initiatives.

Project management allows for a structured approach to project implementation, including planning, resource coordination, and monitoring of tasks and goals. It also helps to avoid unnecessary costs, delays, and risks that may arise during project implementation.

The key elements of the project management concept include:

- Project goals: Clearly defined and specific goals that the project should achieve. The goals should be SMART (specific, measurable, achievable, relevant, and timebound).
- Project planning: Developing a detailed plan that covers all stages, tasks, resources, risks, and timelines of the project. Planning includes the division of work, definition of milestones, schedule, budget, and other necessary elements.
- Project organization: Creating a project team, assigning roles and responsibilities, allocating resources, and establishing communication channels. Organization also includes defining the project management structure and the role of the project manager.
- Project execution and management: Implementing the project plan, managing the team's work, solving problems, and monitoring project progress. During this phase, it is important to monitor, evaluate, and report on project performance.
- Project completion: Evaluation of project results, release of resources, final reporting, performance analysis, and learning lessons. This stage also includes determining the next steps, including possible retention of information for future projects[2].

Projects can be classified by:

- class by composition, structure, and its subject area;
- type by the main areas of activity in which the project is implemented;
- type by the nature of the project's subject area, duration of projects.
- time by project duration.

A detailed classification of projects with names is shown in Figure 1.1.1.

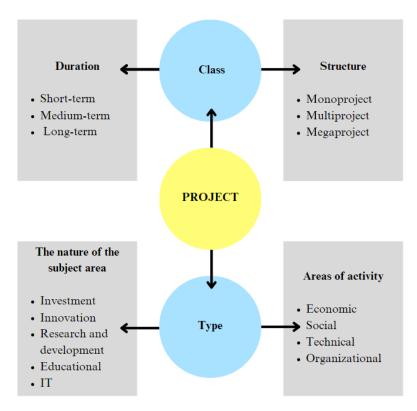


Figure 1.1.1 – Classification of projects

The concept of project management has evolved over decades and is based on the knowledge accumulated by renowned researchers and practitioners. The historical context provides us with an understanding of the evolution of project management and contributes to its further improvement.

The beginning of formal project management is associated with the creation of the Manhattan Project during World War II. After that, the development of project management intensified and various methodologies and practices were introduced, such as the Critical Path Method (CPM) and Program Evaluation and Review Technique (PERT) methodology[4].

1.2 Features of project management in the field of cryptocurrencies

Cryptocurrency is a digital or virtual form of money based on cryptographic principles. One of the basic principles of cryptocurrency is decentralization, which means that there is no central authority, such as a government or bank, controlling its issuance and transactions. Instead, cryptocurrencies are based on blockchain technology, which allows for secure, irresistible, and transparent transactions.

One of the key technological aspects of cryptocurrencies is the blockchain. A blockchain is a distributed database that ensures the security and reliability of transactions. It consists of consecutive blocks, each of which contains a set of transactions. Each block has a unique identifier and refers to the previous block, creating a chain of blocks.

Another important aspect is cryptography, which is used to protect the privacy and security of transactions. Cryptographic algorithms provide data encryption and authentication of network participants[5].

This is the main uniqueness of cryptocurrency projects. Their decentralized nature and the use of blockchain technology. This allows to ensure the security and irresistibility of transactions, avoid centralized control, and reduce the influence of intermediaries such as banks or payment systems. In addition, cryptocurrencies enable fast and efficient international transactions without the need for additional currency conversion operations.

Exchanges also help to popularize projects. This makes it possible to create a wide network of stakeholders who can directly influence the value and relevance of the project by investing their own resources in the development of the project. This opportunity creates additional analytical channels for the project that can be used by the manager to monitor and adjust the promotion plan.

Since the blockchain system ensures the anonymity of users, this also applies to project developers. Building relationships with investors and stakeholders is based on

trust. A high level of trust generates the value of the coin and, as a result, the value of the entire project.

Given the rapid development of cryptocurrencies and the growing interest in them, effective management of cryptocurrency projects is becoming an increasingly important task. Cryptocurrency projects require the implementation of project methodologies and approaches for successful implementation. The project team should have an understanding of the basic principles of cryptocurrencies and blockchain technology, as well as take into account the specifics of this industry when planning, organizing, and controlling the project[6].

Projects built on the blockchain system may differ in focus depending on their orientation. Most projects are focused on financial transactions with cryptocurrency or its conversion, but there are also social, entertainment, research, and other areas.

The uniqueness of crypto project management lies in its specific aspects that differ from traditional projects and have an impact on the project outcome. The main aspects of the uniqueness of crypto project management include the following:

Technological complexity: Crypto projects are usually based on complex technologies such as blockchain, smart contracts, cryptography, etc. and are based on the still untested and poorly understood web3.0 technology. This requires high expertise in these areas and specialized technical knowledge to manage the project effectively. Technical complexities can affect project planning, development, implementation, and control. It is especially difficult for projects to combine the usual web2.0 technology (the current version of the Internet) and web3 (the new generation)

Regulatory uncertainty: Many countries and regions do not yet have clear legislation regulating cryptocurrencies and blockchain. This creates uncertainty in legal aspects and may affect the project. The project team should keep abreast of regulatory changes and find ways to resolve legal issues.

High degree of volatility: Cryptocurrencies and the blockchain market are known for their high volatility and instability. This can have an impact on the financial side of the project, as cryptocurrency prices can change rapidly. Managing risks and financial aspects requires special attention and an adaptive approach.

Community and communication: Many crypto projects have an active community of participants around the world, as they are not restricted by international regulation. Participants interact with the project team and influence its development. Communicating with the community, managing expectations, and taking into account their opinions and suggestions becomes an important aspect of crypto project management [7].

All of these aspects of uniqueness in crypto project management can affect the project outcome, including

- impact on time and resources: complex technologies and regulatory uncertainty can lead to delays and the need for additional resources to solve technical problems or comply with legal requirements.
- Risks and volatility: the volatility of the cryptocurrency market may lead to financial risks and the need to manage them. Risks can also arise from technical problems or misuse of cryptocurrency systems.
- Community influence: The community can influence decision-making and project development. It is necessary to take into account the opinions and suggestions of the community and interact with it to ensure the success of the project.

Thus, during its life cycle, a project may face diverse and unpredictable factors, which requires a high level of expertise and adaptation from the management.

1.3 The impact of relationships on project management

Communications play an important role in project management, influencing the progress and outcomes of a project. Relationships can be classified into internal and external, and each type has its own characteristics and impact on the project.

Internal communication occurs within the organization or project team itself. They include communication between different team members, project management, and stakeholders. Communication links involve information sharing, goal setting, orders, reporting, and joint processing of ideas. Organizational relationships are focused on the structure and hierarchy of the organization and include the distribution of responsibilities, resource management, planning, and control[1].

Internal relationships: These are the connections between different parts and participants within the project itself. They can be communication and organizational.

Communication links: Internal communication between project team members is a key success factor. Effective communication facilitates information sharing, problem solving, coordination, and employee support. Insufficient communication can lead to misunderstandings, delays in completing tasks, and failure to achieve project goals.

Organizational relationships: Internal communication also includes the project's organizational structure, roles, and responsibilities. Clearly defined roles and a clear structure help ensure effective resource management, decision-making, and task assignment.

External relations are the project's connections with its stakeholders, external organizations, and other interested parties.

Communication links: External communication includes information exchange and communication with stakeholders such as clients, partners, government agencies, NGOs, etc. It helps to establish mutual understanding, gain support, and address stakeholder requirements and expectations.

Organizational relations: External relations also includes establishing partnerships, managing contracts, and collaborating with other organizations. Effective management of external relations can facilitate the acquisition of resources, funding, and support for the project[1-3].

Internal communications have a significant impact on project progress. Effective communication helps ensure that goals are understood, information is shared, and problems are solved. The flow of information and resources depends on several factors, such as:

- The degree of project structure: The more structured a project is, the easier it is to manage the flow of information and resources. Clearly defined procedures, roles, and responsibilities help to avoid unnecessary distribution of information and inefficient use of resources.
- Project size and complexity: Larger projects usually have more stakeholders, more communication links, and more information. Managing these relationships requires more attention and resources.
- Technological capabilities: The use of specialized software and tools for communication and organization can facilitate effective information sharing and resource management[8].

Information noise affects the results of project promotion. It arises from an excessive amount of useless or false information, the spread of rumors, or poor quality communication. Information noise can lead to communication breakdowns, misunderstanding of tasks, and loss of trust among project participants. The formula for calculating noise does not have an unambiguous standard, but methods can be used to analyze the impact of false or incorrect information on the effectiveness of communication and the achievement of project goals[9]. If communication and organizational relationships are not effective, the following problems may arise

- Delays in information transfer and decision-making, which can lead to delays in project implementation.
- Unfavorable allocation of resources, when the necessary resources are not provided on time or are not properly allocated, which can lead to overloading or underutilization of resources.
- insufficient attention to stakeholders, which can lead to stakeholder dissatisfaction and a negative impact on the project's image.

The project manager is a key figure in project communication management and has an important role in ensuring effective communication and organizing relationships between different stakeholders. The project manager must have strong communication skills to effectively communicate with all project stakeholders. This includes the ability to listen, explain complex concepts, create rapport, and ensure mutual understanding. The ability to build and maintain positive relationships with stakeholders is key to successful project communication management. A project manager must show empathy, understand the needs and expectations of different parties, resolve conflicts, and foster cooperation[1,4].

The manager must be an effective leader who is able to motivate the team and stakeholders, create a favorable atmosphere of cooperation, and develop a communication culture in the project.

Planning and organizational skills are required to effectively plan and organize communication processes, establish clear lines of communication and responsibilities to develop communication plans and strategies. The project manager should monitor communication processes, track the implementation of communication plans, control the quality of communication and intervene in time to solve problems[10].

The project manager is obliged to use all available skills and resources to ensure the development of a communication strategy and planning of project communication activities; establishing connections and ensuring interaction between various project stakeholders, including the project team, clients, suppliers, and other stakeholders; Ensuring effective communication through the use of various communication channels and tools. Other responsibilities include conflict resolution and facilitating constructive communication; identifying and managing communication-related risks; monitoring and evaluating the effectiveness of communication processes[4].

CHAPTER II ORGANIZATIONAL ASPECTS OF THE PROJECT, IN THE CONTEXT OF THE PLASTIKS CRYPTO PROJECT

2.1 General information about the project

The Plastiks project is an environmental crypto project. This part provides general information about the project, its idea, goal, vision, organisational structure, and features. Since it is a crypto project, its market valuation is based on the value of the cryptocurrency, as well as the project's own NFT (non-fungible token) coin, which is the embodiment of user trust and an analogue of stocks on the Stock market. The data is presented in Table 2.1.1 with general information[11,12].

Table 2.1.1 - General information

Project name	Plastiks
Link to the site	https://plastiks.io/
Country of foundation	Spain
Time of foundation	September 2021
Industry	Eco-Cryptoproject
Product	Plastic recovery, NFT
Based on technology	Blockchain/NFT
Founders	André Vanyi-Robin
	Daniel García
	Trym Lyngset
Current market valuation (Apr 20, 2023)	\$6,746,669
The price of the coin itself (Apr 20, 2023)	\$0.04425
Number of core team members	11

The Plastiks project has all the necessary project characteristics, but it must be understood that this is a long life cycle project. The project's goals should be achieved by 2050. to achieve its environmental goals The project has the means:

Mission: connect individuals and businesses worldwide in the fight against plastic pollution by supporting plastic recovery activities through the implementation of technology and Non-Fungible Tokens (NFTs). By promoting transparency in plastic recovery, the project aims to enhance the traceability and accountability within the plastics value chain while also challenging the market of plastic credits. The ultimate goal is to reduce plastic waste and its harmful effects on the environment.

Vision: create a world free from plastic waste. It aspires to become the global reference for plastic credits by guaranteeing and certifying the recovery and recycling of plastic waste on a global scale. By establishing robust mechanisms to track and verify plastic recovery activities, the project aims to instill confidence and trust in the effectiveness of plastic waste management.

Methods for Achieving Goals: The project provides companies with a unique opportunity to take immediate and verifiable actions against plastic pollution by sponsoring the recovery of plastic waste across the globe. Through the utilization of blockchain technology, every stage of the plastic recovery process is meticulously tracked, ensuring that no recovered plastic ends up in landfills. This system promotes transparency and accountability throughout the entire process[11-13].

To facilitate transparency and engagement, the project offers a real-time dashboard that enables stakeholders to monitor the impact of each company's contributions and the progress of recovery projects associated with Plastiks. This open and verifiable system not only allows companies to showcase their sponsorship and support but also empowers individuals to witness the tangible outcomes of their collective efforts in combating plastic pollution. Organisational structure has a flat hierarchy (Figure 2.1.1).

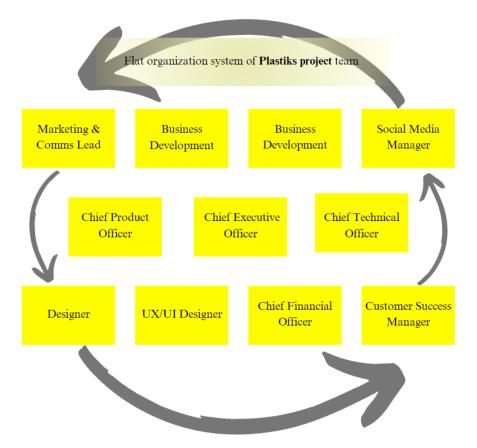


Figure 2.1.1 - Structure of communication and information flow in the team[13]

Another important element of structural organisation is the use of SCRUM and Kanban frameworks. SCRUM and Kanban are two popular project management methodologies that can be applied in a flat organisational structure of an 11-member team to improve work organisation and achieve goals.

SCRUM is an iterative approach to project management based on the formation of agile, self-organised teams. The SCRUM methodology uses short sprints, usually lasting from 1 to 4 weeks, during which the team focuses on developing specific functionalities. SCRUM supports the use of roles, such as Scrum Master and Product Owner, which ensure effective planning, coordination, and communication within the team. The SCRUM methodology gives the team the flexibility to change priorities and make adjustments to the project based on feedback after each sprint.

Kanban is a management methodology aimed at defining and visualising the flow of work. The Kanban methodology uses a board with cards on which tasks are written. The cards are moved along the columns of the board, which shows the current status of the tasks. Kanban focuses on limiting workload, maintaining work balance, and encouraging continuous improvement. This method allows the team to see the current state of the project, identify possible obstacles, and respond quickly to changes in requirements.

Using SCRUM and Kanban in a flat organisational structure of an 11-member team can help improve communication, transparency, and organisation. These methodologies allow the team to be flexible, respond to changes, and use self-organisation to achieve project goals[13,14].

It should also be borne in mind that the project is managed and developed by the core team, but Plastiks uses third-party human resources of activists, project contributors, concerned people, and hired employees, experts, and technologists to implement the project's actions and programmes. The core team has main roles (listed in Figure 2.1.1), as well as additional roles that can change and move from employee to employee to ensure coordination of actions in different locations around the world.

2.2 The importance of the Plastiks

This section aims to explore the historical facts related to the region where the Plastiks project is deployed, as well as to determine the importance of the project for the region. This section is important for understanding the context and features that contribute to the development and success of the project.

The study of historical data allows us to track the urgency and natural need for such projects based on the characteristics of the region, identify key stages of its development, and identify factors that influenced the formation and development of the project. This

will allow us to obtain a contextual basis for further analysis of the importance of the Plastiks project and evaluation of its development.

Studies of the environmental situation in the Mediterranean region of Spain indicate the existence of serious problems that stimulate the need for the Plastiks project and show the natural need for such initiatives in the region.

According to studies, water pollution in the Mediterranean region of Spain has reached alarming levels, which has a serious impact on the marine ecosystem and biodiversity[15].

The loss of natural ecosystems is also a serious problem in the region. Increased industrialisation and the careless use of natural resources have resulted in deforestation, the shrinking of natural recreation areas, and a negative impact on ecological balance[16].

This environmental data suggests the need for a project aimed at combating environmental problems in the Mediterranean region of Spain. The Plastiks project emerged as a response to these problems, taking into account the region's needs to reduce water pollution and preserve natural ecosystems. It was created as a natural response to the region's need for progressive and environmentally friendly solutions to preserve the environment and promote sustainable development.

Through social impact and its environmentally-oriented actions, Plastiks aims to promote environmental movements and awaken social responsibility. Since environmental issues have a wide range of different impacts, Plastiks is a project focused on plastic recycling, as its name suggests. The main problems that the project has to solve in the course of its existence can be identified based on the mission and vision:

- Drawing public attention to the environmental problem of plastic recycling;
- Challenge social responsibility among those familiar with the project to recycle plastic properly;
- Maintaining transparency in the recycling process and showing the importance of each individual's contribution to the environment;

- Attracting investment to address environmental issues;
- Creating an earning opportunity for project investors.

With the help of crypto technologies, the project is not limited to the region of its creation. It is designed to unite people from all over the world, since the main technology on which the project is built: blockchain - has no centralisation[5], the project has no borders for distribution and accepts investments from all over the world. It is also important to note that communication with investors (also users of the project) is two-way, and the project's environmental actions affect not only the region where the project was created but also the global environmental situation. Thus, the project operates in different parts of the world, such as: Brazil, Thailand, India, Chile, Côte d'Ivoire, etc[17]. The project achieves its goals in the regions where the most critical reports on the environmental situation in their area (plastic recycling) come from, as well as from regions that create requests for intervention.

There are positive impacts of the project's interventions in the regions where the project programmes are implemented:

- Improvement of environmental conditions through plastic recycling and reduction of its release into the environment;
 - Creation of jobs in the recycling process;
 - Creating opportunities for passive income.

The project provides an opportunity for everyone to invest in the project, which is an investment in the creation and support of environmental programmes, but also provides an opportunity for passive income. Project users who have invested in the project can receive NFT reports on the work done. The received non-fungible tokens can be exchanged on exchanges and trading platforms and withdrawn into traditional currency (USD, EURO, UAH, etc.)

Given that all the plastic that enters the recycling programmes will be reused in various ways, it can be summarised that the project benefits the environment as it

improves the ecological situation and can also generate income for stakeholders, investors and workers working for the project in the places where environmental programmes are implemented, solving the issue of unemployment.

2.3 Challenges and risks of the Plastiks project

To understand the development of a project in the future, forecasting, and building a model, it is important to understand the risks faced by the project. Risks directly affect the chosen development strategy and the achievement of goals. Project communications can also be built on the basis of project risks to ensure a quick response to the causes and elimination of problems and their consequences.

Risk is the potential for an undesirable event or negative situation to occur and cause loss, damage, or failure. It can be associated with danger, uncertainty, or a negative impact on the achievement of an organisation's goal or the success of a project or activity[1].

Project risks are determined by various indicators and from the sources of project interactions and communications. Each link in the communication and organisation process can create negative situations. For cryptocurrency projects, we can identify inherent risks based on the characteristics of technologies and the main communication channels of projects in this area. The risks of crypto projects can be traced back to the Plastiks project. The following main risks can be identified (Table 2.3.1-3)[18]:

Table 2.3.1 - Plastiks project external risks

Risk	Description	Negative impact
Market	The cryptocurrency market is not	A sharp drop in the overall
	stable and can fluctuate due to many	market can cause difficulties
	external factors	in the project budget and
		discourage users
Risks of the	The project depends on the	Loss of a significant part of
auditory	involvement of users and the amount	the audience, which will
	of money they are willing to invest in	affect the financial support
	the development of the project. The	for the project and the
	mood of the audience and their belief	project's popularity.
	in the project can change depending	
	on various factors, such as the growth	
	of the project currency, the fulfilment	
	of obligations by the project, progress	
	in development, communication	
	between the core team and users	
Unforeseen	Unpredictable changes in the	Loss of budget, suspension
forces	economic or political environment,	of activities, relocation of
	such as changes in the labour market,	activities out of the region,
	taxes, crisis or legislation, the	termination of contracts -
	project's focus area or the	this can completely stop the
	technologies used	project or bring high costs
		and loss of time for
		adaptation, modernisation

Table 2.3.2 - Plastiks project internal risks

Risk	Description	Negative impact
Operational	Coordinating project activities in	Loss of time for
	different parts of the world requires	negotiations, downtime,
	a high level of coordination. The	additional budget costs,
	core team coordinates programmes,	cancellation of the
	establishes links with regional	programme
	authorities, and looks for local	
	implementers	
Managerial	Incorrect allocation of resources,	Extra costs,
	time, and effort. Improper	communication
	communication, choosing the	breakdowns, untimely
	wrong strategy to achieve goals.	achievement of goals,
	Improper communication,	forced project closure
	inappropriate organisational	
	structure, and the choice of the	
	wrong strategy for achieving goals	
Incorrect	The use of emerging technologies	Poor user experience will
software	(web3.0) causes difficulties in	scare away new users,
	developing the technical aspects of	other mistakes that can
	the project. Improperly selected	lead to loss of money for
	development software can cause	the project team or users,
	many errors in the final technical	lost time and money for
	product	reworking the technical
		product

Table 2.3.3 - Plastiks project strategic risks

Risk	Description	Negative impact
Lack of liquidity	The project depends on the	Long adaptation, which can
	assets it has, and they need to be	lead to additional costs, loss
	liquid at the right time to ensure	of market, users
	adaptation to new conditions.	
	For example, transferring a	
	token to another token, to cache	
	or fiat and vice versa	
Disruptions in	Cryptocurrencies have their own	Errors can occur in user
the functioning	exchanges and exchange	transfers and deposits, which
of the payment	offices, so investing in a project	can delay investments and
system	may require third-party services	cost time and money to find
	that may work with errors or	and correct errors
	delays	
Reputational	Reputation affects the rating of a	Reputational damage,
problems	project, its visibility and	reduced investment
	investment attractiveness.	attractiveness and loss of
	Reputation can change in two	investors
	ways due to certain actions of	
	project management or third	
	parties	

In order to avoid the above risks and their consequences, we can identify their main sources: technical, managerial, and communication. To prevent them, it is necessary to focus on these sources and create contingency budgets to respond quickly to problems. It

is also worth developing a strategic plan for managing these sources to have a more detailed understanding of what the consequences for the project may be.

Risk management is important for projects because it helps organisations effectively deal with the hazards and uncertainties that may arise during the project. This approach involves systematically analysing and assessing risks, developing strategies to manage them, and implementing appropriate measures to prevent or mitigate potential negative consequences.

In the context of crypto projects, risk management is particularly important due to the specifics of the cryptocurrency environment and its volatility. Cryptocurrencies are characterised by high price volatility, frequent changes in the regulatory environment, technical vulnerabilities and a wide range of cyber threats. Therefore, risk management in this context becomes an important tool for ensuring the stability, security and success of crypto projects.

The main reasons for the importance of risk management in crypto projects include market volatility: the cryptocurrency market is subject to significant price fluctuations, which can affect the profitability and financial stability of the project. Effective risk management allows assessing the possible consequences of such fluctuations and taking appropriate measures to reduce exposure to this risk[19].

Cryptocurrencies and blockchain technologies are often subject to cyberattacks that can lead to the loss of digital assets, violation of user trust, and negative impact on the project's reputation. Effective risk management includes protecting against cyber threats, developing cryptographic security measures, and controlling access to digital assets.

It also includes regulatory impact, which can have a significant effect on their value and legality. Risk management allows analysing regulatory risks, the impact on the project's activities, and developing an appropriate strategy for interacting with regulators[20].

The overall goal of risk management is to avoid or mitigate the negative effects of risks, as well as to take advantage of opportunities that may arise. This is achieved by identifying, analysing, evaluating and implementing appropriate risk management strategies.

Given the specifics of crypto projects, risk management becomes a necessary tool to ensure stability, security and success in this rapidly changing and complex cryptocurrency environment.

CHAPTER III ANALYSIS OF COMMUNICATION IN CRYPTO PROJECTS

3.1.1 Communication channels in the project and their areas and analysis

This section presents an analysis of the project's communications. Communication is an important aspect of any project, as it affects decision-making, resource use, obtaining new resources, and the delivery of the product to customers. There are different types of communication channels for communication, and they depend on many aspects, such as the environment, type of product, project goals, and others. Project communications can be divided into external and internal communication. External communication involves interactions with parties that are not part of the project and are connected as suppliers. Internal channels are built between team members working on the project and its development.

Research methods such as questionnaires, interviews, document analysis, and observation can be used to analyse the communication aspects of a project and the effectiveness of its communication channels. These methods provide objective data on stakeholder perceptions and satisfaction with the project's communication tools, identify potential problems, and suggest improvements to improve communication effectiveness.

3.1.2 Purpose of using the questionnaire to evaluate project communications

As part of the study of the quality of communications and communication channels in the project, the questionnaire methodology is used. Questionnaires are one of the data collection methods widely used to assess the quality of communications and communication channels in projects. This method allows you to systematically receive responses from project participants and analyse the data to identify the strengths and weaknesses of communication processes.

The importance of conducting a survey is that it allows you to get an objective assessment of the quality of communications, identify problematic aspects, and find ways to improve them. The target audience for analysing external communications is the project's external stakeholders, such as clients, partners, consumers, and investors. Internal communications are assessed depending on the role and status of project participants, including management, employees, and the project team.

The main purpose of the survey is to determine the level of satisfaction of participants with communication processes and communication channels. To achieve the objectives of the survey, the following aspects should be taken into account:

- Setting goals: Before conducting a survey, it is important to clearly define the objectives of the study, such as assessing the effectiveness of information channels, identifying problem areas, or enriching communication strategies.
 - Developing questions: the questionnaire should contain carefully worded questions that address various aspects of the communication process, including the clarity of messages, availability of relevant information, and effectiveness of the channels used.
 - Selection of metrics: For each question, appropriate metrics should be established to assess the quality of communications. For example, this could be a satisfaction scale, frequency of use of communication channels, or level of understanding of the information received.
 - Sample selection: To ensure that the results are representative, an appropriate sample of participants should be selected, including different groups of stakeholders and project team members.
 - Analysis of the results: after collecting data, conducting statistical analysis and interpreting the results, it is important to draw conclusions about the quality of communications and means of communication in the project. The use of marketing methods in external and internal communications can help

improve the perception of information and mutual understanding between project participants[9].

The target audience for external communications analysis includes external stakeholders such as customers, partners, shareholders, etc. They reflect the outside world and influence the reputation and success of the project. Internal communications analysis is aimed at assessing the effectiveness of communications between members of the internal project team, such as management, employees, and contractors. This helps to identify possible problems in information exchange, interaction, and collaboration within the project. Two surveys can be conducted to ensure the separation of external and internal communication for the Plastiks project:

- external survey a survey of clients and users;
- internal survey a survey among the core project team.

These actions can help you to identify the strengths and weaknesses of the project separately, and in the final result, combine them into a coherent picture and make an overall assessment.

The use of a survey to assess the quality of project communications has significant scientific potential and practical value. The Plastiks project can use the results of this study to improve its communication strategies, enhance stakeholder engagement, and increase its impact on regional environmental issues.

3.2 Analysing the project's internal communications

To analyse the internal communications of the project, it is necessary to identify the channels that are available for use by members of the Plastiks core team. To identify the channels, you can use data on the organisational structure. The organisational structure includes a model of interaction between participants. When identifying channels, it is also important to understand the communication technologies available to the project.

The project uses a flat organisational structure. All participants are in a horizontal plane. This leads to the use of two types of communication: general and personal. To solve common problems and make decisions, common communication channels are used where all information is available to everyone at once. Separate communication channels are also formed between team members for personal information exchange. Unlike shared channels, in the personal type, information is transmitted from the source to other participants through personal channels and can be repeatedly transmitted within the team until the final decision is made. Information is released to public channels when it needs the attention of all participants. Each type of communication has its own disadvantages and advantages, which is why it is important to keep a balance and regulate what information should be communicated in person and what should be shared with all participants.

The project core team consists of 11 people, which means that all 11 members are sources of information. The movement of information between sources and the choice of communication channel is left to each team member, which makes each of the 11 members responsible for the timely delivery of information to the right participants, as well as for the relevance of the information.

The following methods of communication can be found in the Plastiks project and others like it:

- One-on-one:
- In a chain of teams (through other team members);
- Group calls/meetings;
- Informal calls/meetings;
- Email;
- Messenger;
- Other methods (Slack, Jira, Trello, etc.).

General communication includes calls, formal and informal meetings, and grouping in messengers and communication applications. Personal communication includes email, personal messages in messengers and communication applications, personal calls and meetings.

Each of the communication methods is used in different proportions and depending on the purpose of the communication. Some are used more frequently than others, and the effectiveness and convenience of the method varies considerably. In order to determine which method is more suitable for exchanging information for decision-making, it is worthwhile to use the survey in APPENDIX A.

The set of questions in the survey is designed to obtain data on how workers feel about project communications, the effectiveness of these communications, the most convenient channels, and based on the answers, conclusions can be drawn about

- Assessment of the way communication takes place (1-2 questions). This will help to understand the continuity and direction of communication within the team;
- Reducing the number of channels (3-6 questions), which are aimed at obtaining data on the use of channels and assessing their popularity, effectiveness and use by the team. It helps to weed out the underutilised communication channels or transfer them to channels that are more frequently used by participants;
- Assessment of the overall effectiveness and ease of communication (questions 7-12). The assessment provides an understanding of the challenges and problems in communications. After the analysis, you can pay attention to the regulation of communications, as well as to the corporate culture and, if necessary, create a plan to improve it. The analysis of channel congestion by feedback rate in question 8 allows you to draw conclusions about creating and improving communication and regulating responses[21].

In general decision-making channels, all information relevant to the topic of the issue must be accepted. Information that is not relevant to a particular issue can be a hindrance. Information that is irrelevant and not useful to the decision maker becomes information noise[9]. This noise created from the flow of information slows down decision-making due to the need to evaluate information and screen it for relevance.

Calculating the number of connections between team members helps determine the number of channels that generate noise. The number of connections can be defined as the product of the number of team members divided by the number of communication targets divided by 2.

The formula for calculating the number of connections is as follows[22]:

$$C = \frac{n \times (n-1)}{2},\tag{3.2.1}$$

where:

C - number of channels in the group;

n - number of team members;

The number of two-way connections determines the maximum possible noise level for the team, as in the worst case, all channels generate noise at the same time. To analyse the noise level, you can use a questionnaire with a rating scale, where participants rate the relevance of the information they receive. The total score of the participants reflects the noise level in the communication channels. The information noise coefficient (I.n) is defined as the average score in percentage terms. The number of channels transmitting noise can be determined by multiplying the number of channels (C) by the information noise coefficient (I.n).

The formula is as follows:

$$N_C = C \times I.n, \tag{3.2.2}$$

where:

 N_c – number of channels generating noise;

C - number of channels in the group;

I.n - noise figure.

Based on the calculations, decisions can be made to improve communication within the team. Regulation of communication, simplification of channels, relevance assessment and communication training are important to facilitate the decision-making process and reduce noise or its impact to improve decision-making.

3.3 Analysis of the project's external relations

A project's links to the environment are defined as the interaction and exchange of information between the project and external stakeholders, such as clients, partners, suppliers, regulators, and civil society organisations. The quality of these relationships has a direct impact on the project in a number of ways.

Firstly, the quality of a project's environmental communications determines the level of trust and understanding between the project and its stakeholders. Effective communication with stakeholders helps to build positive relationships, reduce potential conflicts, and ensure a favourable atmosphere of cooperation.

Secondly, the quality of the project's environmental communications determines the level of stakeholder support and participation in the project. The stronger and more effective the linkages, the more likely it is that the necessary support, resources, and assistance will be received from stakeholders.

Thirdly, the quality of the project's links with the environment determines the level of information exchange and access to key information. If communication is effective and timely, the project will be able to obtain the necessary information from stakeholders and provide them with up-to-date information about the project. This helps to reduce uncertainty, eliminate misinterpretations, and make informed decisions.

External project communication involves the use of various channels and tools to interact with stakeholders. It is important to define the characteristics and types of external communication channels to ensure their effectiveness and suitability for use.

- Email: The email tool allows you to exchange emails, documents and information with stakeholders. It provides a quick and convenient means of communication.
- Website: The project website is an important channel for posting project information, news and updates, allowing stakeholders to easily access relevant information.
- Social media: Social networks platforms are becoming an increasingly popular communication channel that allow the project to connect with stakeholders, engage them in discussions, and help raise awareness of the project.
- Press releases and media relations: Sending out press releases and interacting with media representatives is an important means of promoting the project, gaining media coverage and attracting public attention.
- Meetings and conferences: Organising face-to-face meetings, presentations, and conferences with stakeholders provides an opportunity to interact directly, exchange views, and resolve issues.

- Chats and forums of project users (a typical channel for cryptocurrency projects, in most of which it is the main one): Moderation and ongoing community support helps to understand the mood of the audience and receive feedback on decisions made or actions taken.

To understand the quality of communication, you can conduct a survey among project users and stakeholders and analyse the weaknesses and strengths of communication. Unlike internal communications, external communications have more voluminous channels due to the large number of users.

From the marketing side and brand building strategy, it is important to understand the principles of customer focus:

Principle 1. Integrity. One of the main principles that characterises customer focus is the conscientious performance of duties. The application of this principle implies accurate and detailed performance of work duties without any deviations. Performing one's duties with care and in compliance with professional standards contributes to a positive perception of customers and encourages them to return again.

Principle 2. Knowledge of the client's needs. This principle requires a company to have a clear understanding of its clients' needs. To achieve this, a company should actively ask its customers and listen to their answers. By establishing a dialogue and collecting feedback after the purchase of a product or service, a company can gain valuable information about the quality of its products and customer satisfaction. These actions reflect the company's concern for its customers and encourage their return.

Principle 3. Understanding and accepting the customer's point of view. This principle involves analysing the path a customer takes to make a purchase or use a service from a company. By adopting the customer's point of view, the company can assess how satisfied the customer is with the process and quality of service. This allows the company to identify possible areas for improvement and change its approach accordingly.

Principle 4. Attention to detail. One of the principles of customer centricity is the ability of a company to notice the little things that can cause customer dissatisfaction or irritation. Even minor details can have a significant impact on consumers. Therefore, the company needs to pay attention to such aspects and make changes to satisfy customers in all aspects of service.

Principle 5. Exceed customer expectations. The last principle of customer centricity involves systematically providing customers with more satisfaction than they expected. Providing a slightly better service than expected can pleasantly surprise the customer and positively affect their perception of the company[23].

The principles should be maintained in all of the above channels of communication with the external environment. Since the audience is large, and the main channel (Chat and project user forums) is mostly used for free communication and discussion of the project, channel management becomes more complicated. Denial of any of the channels can negatively affect the audience that is comfortable using this channel to receive information about the development and events of the project.

User surveys can create a focus on interaction issues. For implementation and evaluation, you can use the questionnaire in APPENDIX B. Based on the answers, you can analyse:

- Question 1 is aimed at analysing the channels through which the project acquires new users. It can be used to identify strengths for concentrating content through the most popular sources, as well as policy changes regarding the strategy for using other channels;
- Question 2 will help to understand and filter out more relevant feedback on the project's work and the desires of people who are not yet users, as it will separate contributors from interested people;
- Questions 3-8 will provide data for analysing the perception of content sent through the channels and making a focus on certain channels for more meaningful communication and improving its quality.

- Questions 9-12 are designed to analyse team and community communications. Based on the answers, you can draw conclusions about improving personal communication between the team and project stakeholders.
- Questions 13-19 are aimed at determining how users feel about communication, which is combined with customer focus
- 18 question also provides a general description that can be a reference point for finding communication problems.

Using this questionnaire in crypto projects, we can draw general conclusions about the vision of the audience. The vision of the audience is important when building a strategy. Since the audience is both a sponsor and an investor, an important element will be the analysis of the audience's attitudes and expectations, and the communication aspect plays an important role in shaping these indicators. Using the numerical scores obtained in questions 3, 4, 14, 15, 16, 18, you can make a general description of the project's communications. The higher the average score, the better the project is performing and the higher the chances of attracting new users.

3.4 Conclusions and recommendations

Implementing and managing effective project communication is one of the key success factors. To ensure the quality of the communication process and identify possible problems, regular surveys of the project team and project audience can be extremely useful tools.

A project team survey allows you to find out opinions, impressions, and assessments of the communication process within the team. It allows you to identify which communication channels are used most often, what are the obstacles to effective information transfer and mutual understanding between project participants. The results of the project team survey can provide valuable insights and recommendations for improving the communication process, for example, by introducing new communication tools, conducting trainings, or improving the organisation of workshops.

A survey of the project audience, including clients, stakeholders, or other interested parties, allows you to get an external assessment of the communication process and the quality of communication. This helps to understand how effectively the project interacts with its audience, which communication channels are most effective for the target group, and whether the content of the communication meets the needs of the audience. The results of the project audience survey can indicate the need for changes in the communication strategy and help improve the way you interact with clients and stakeholders.

Recommendations for using surveys to evaluate project communications include the following steps:

Clearly define the purpose of the survey: before starting the survey, you need to clearly state the purpose and goals of the survey, as well as determine what information you want to get from the project team or project audience.

Develop a questionnaire: Create a questionnaire that includes questions aimed at assessing the quality of communications, the use of communication channels, and

satisfaction with the communication process. Use different types of questions, such as closed-ended, open-ended, or rating scales, to get a variety of information. You can use the questionnaires in APPENDIX A and APPENDIX B

Ensure anonymity: Ensure that the survey is anonymous so that participants feel free to express their opinions and views without any restrictions or fear of repercussions.

Distribute the survey: Send the survey to the project team and the project audience, giving them enough time to complete it. Ensure that the questionnaire is convenient and easy to fill out, and provide additional explanations if necessary.

Analyse the results: after receiving the answers, analyse the survey results, taking into account both quantitative and qualitative data. Highlight key issues, trends and features to understand the strengths and weaknesses of the communication process and draw the necessary conclusions.

Implement changes: based on the survey results, make the necessary changes to the project's communication strategy. Improve communication channels, improve feedback processes, and actively apply the recommendations from the survey[21].

It is important to remember that for each specific project, you should select your own criteria for evaluating communications in accordance with the specifics of its work. For example, for marketing projects, criteria related to the effectiveness of advertising campaigns, interaction with the target audience, and response to market trends may be important.

Communications management is an extremely important aspect of a project manager's job. Mastery of communication skills and the ability to communicate effectively with all project stakeholders helps ensure that the entire project team understands, interacts, and is aligned. By managing communications, the project manager ensures that important information is communicated, conflicts are resolved, and a positive communication climate is maintained, which contributes to the success of the project.

CONCLUSION

The thesis showed me that project management is a discipline that is gaining momentum and becoming increasingly relevant in the modern world. Given the increasing complexity and risks of projects, the ability to manage them effectively is becoming a key success factor.

Project management is also becoming an integral part of the cryptocurrency world, where new projects and startups are constantly emerging. In this environment, the communication component is particularly important. Interaction with stakeholders, including users, investors, and the community, has a major impact on the success of a project.

The Plastiks project, discussed in this paper, is an example of a successful project that is being developed using project management principles. The study examined typical communication aspects that play an important role in project development.

These communication aspects can be evaluated by directly accessing the user audience and obtaining their feedback. This allows you to understand the effectiveness of communication channels, the audience's response to messages, and requirements for further improvement.

A survey as a tool for analysing internal communications helps to identify the strengths and weaknesses of the communication process within the team. The results of the internal communications analysis can be used to make strategic decisions on how to improve the communication process within the project team. For example, regular meetings can be introduced, internal communication channels can be created, or the system of information exchange and feedback can be improved.

Communication is an important element of project development. If communication with users is maintained at a high level, the audience and value of the project will increase.

The interaction and trust that arise from effective communication stimulates the attraction of new users and helps to retain the existing audience.

In this context, the project manager plays a key role in managing project communications. Their knowledge and skills in effective communication are crucial for the successful completion of the project.

This thesis has highlighted the importance of project management and the communication component in project development, particularly in the field of cryptocurrencies. The study of the Plastiks project provided a practical example of the use of tools for analysing communication strategies and opportunities to evaluate their effectiveness through interaction with the audience.

The overall conclusion is that project management and effective communication are critical factors in project success. Understanding and implementing the principles of project management and communication skills can help to achieve a common focus for the entire team and ensure the successful completion of the project.

LIST OF REFERENCES

- 1. Project Management Institute. (2021). Guide to the project management body of knowledge (PMBOK® guide) seventh edition and the standard for project management. Project Management Institute.
- 2. Wysocki, R. K. (2013). Effective project management: Traditional, agile, extreme. Wiley & Sons, Incorporated, John.
- 3. Liudmyla Yevheniivna, D., Hanna Anatoliivna, M., & Iryna Petrivna, M. (2017). «Upravlinnia proektamy»: navchalnyi posibnyk do vyvchennia dystsypliny dlia mahistriv haluzi znan 07 «Upravlinnia ta administruvannia» spetsialnosti 073 «Menedzhment» spetsializatsii: «Menedzhment i biznesadministruvannia», «Menedzhment mizhnarodnykh proektiv», «Menedzhment innovatsii», «Lohistyka». KPI im. Ihoria Sikorskoho.
- 4. H, K. (2009). Project Management: A systems approach to planning, scheduling, and controlling (10-te vyd.). John Wiley & Sons, Inc.
- 5. Nakamoto, S. (2008). "Bitcoin: A Peer-to-Peer Electronic Cash System." Bitcoin.org.
- 6. Antonopoulos, A. M. (2014). Mastering Bitcoin: Unlocking Digital Cryptocurrencies. O'Reilly Media.
- 7. Swan, M. (2015). Blockchain: Blueprint for a New Economy. O'Reilly Media, Incorporated.
- 8. Turner, J. R. (2008). The Handbook of Project-based Management. McGraw-Hill.
- 9. Eliakov, A. D. (2005). Informatsyonnaia perehruzka liudei. Sotsyolohycheskye yssledovanyia.

- 10. Verzuh, E. (2021). Fast Forward MBA in Project Management: The Comprehensive, Easy to Read Handbook for Beginners and Pros. Wiley & Sons, Incorporated, John.
- 11. About Plastiks. (n. d.). plastiks.io. Retrieved from: https://plastiks.io/about-us/ (reference date 20.04.2023)
- 12. Plastiks price today, PLASTIK to USD live, marketcap and chart | CoinMarketCap. (n. d.). CoinMarketCap. Retrieved from: https://coinmarketcap.com/currencies/plastiks/. (reference date 20.04.2023)
- 13. Plastiks: The first Utility NFT Marketplace that fights plastic pollution. (2023). plastiks.io. Retrieved from: https://plastiks.io/wp-content/uploads/2023/02/Whitepaper-2023.pdf. (reference date 20.04.2023)
- 14. Sutherland, J., & Schwaber, K. (2017). Scrum Guide. Scrum.org.
- 15. Spain: most important environmental issues 2020 | Statista. (2022). statista.com. Retrieved from: https://www.statista.com/statistics/867204/spain-most-important-environmental-issues/. (reference date 20.04.2023)
- 16. Spain to be hard hit by climate change Elcano Royal Institute. (n. d.). realinstitutoelcano.org Retrieved from: https://www.realinstitutoelcano.org/en/blog/spain-to-be-hard-hit-by-climate-change/. (reference date 20.04.2023)
- 17. Recovery Projects Catalog. (n. d.). plastiks.io. Retrieved from: https://plastiks.io/recovery-projects-catalog/. (reference date 20.04.2023)
- 18. Ministerstvo finansiv Ukrainy. Metodychnyi posibnyk shchodo aspektiv upravlinnia ryzykamy, yak skladovoi systemy vnutrishnoho kontroliu u rozporiadnyka biudzhetnykh koshtiv. (2022). mof.gov.ua. Retrieved from: https://mof.gov.ua/storage/files/%D0%B4%D0%BE%D0%B4_%203%20%D0%9C%D0%B5%D1%82%D0%BE%D0%B4%D0%B8%D1%87%D0%BD%D0%B8%D0%B9%20%D0%BF%D0%BE%D1%81%D1%96%D0%B1%

- D0%BD%D0%B8%D0%BA%20%D1%89%D0%BE%D0%B4%D0%BE%2
 0%D0%B0%D1%81%D0%BF%D0%B5%D0%BA%D1%82%D1%96%D0%
 B2%20%D1%83%D0%BF%D1%80%D0%B0%D0%B2%D0%BB%D1%96
 %D0%BD%D0%BD%D1%8F%20%D1%80%D0%B8%D0%B7%D0%B8%
 D0%BA%D0%B0%D0%BC%D0%B8.pdf (reference date 04.05.2023)
- 19. Bouri, E., Molnár, P., Azzi, G., Roubaud, D., & Hagfors, L. I. (2017). On the hedge and safe haven properties of Bitcoin: Is it really more than a diversifier? (20-te vyd.). Finance Research Letters.
- 20. Global Risks Report 2020 (Insight Report 15th Edition). (2020). Retrieved from: https://www.weforum.org/reports/the-global-risks-report-2020. (reference date 20.04.2023)
- 21. Company Communication Survey | Communication survey questions | QuestionPro. (n. d.). questionpro.com. Retrieved from: https://www.questionpro.com/survey-templates/company-communications-evaluation/. (reference date 20.04.2023)
- 22. Communications Channels Formula for Communications Management. (n. d.). project-management-prepcast.com. Retrieved from: https://www.project-management-prepcast.com/free/pmp-exam/tips/333-what-is-the-communications-channels-formula-for-communications-management. (reference date 20.04.2023)
- 23. Kliientooriientovanist: osnovni pryntsypy. (n. d.). bc-club.org.ua. Retrieved from: https://bc-club.org.ua/guidebook/articles/klientoorientovanist-osnovni-pryncypy.html. (reference date 20.04.2023)

APPENDIX A

Example of a survey to assess internal project communications

Evaluation of internal communications in the project team

1. How often do you communicate with the team?			
a)	Once every few weeks		
b)	1-2 times a week		
c)	3-5 times a week		
d)	1-2 times a day		
e)	3-5 times a day		
f)	Up to 10 times a day		
g)	More than 10 times a day		
2. Hov	v do you communicate with the team?		
a)	Personal communication channels		
b)	General communication channels		
c) Separate communications with some of the team members			
3. What type of communication with the team do you have access to??			
a)	One to one	e)	Informal calls/meetings
b)	Group chats	f)	Email
c)	In a chain of command (through	g)	Messenger
	other team members)	h)	Other methods (Slack, Jira,
d)	Group calls/meetings		Trello etc)
4. Wha	at type of communication do you think is most con	nmo	nly used?
a)	One to one	e)	Informal calls/meetings
b)	Group chats	f)	Email
c)	In a chain of command (through	g)	Messenger
	other team members)	h)	Other methods (Slack, Jira,
d)	Group calls/meetings		Trello etc)

5. What type of communication do you think is most useful in making the final decision?

a)	One to one				
b)	Group chats				
c)	In a chain of command (through other team members)	ers)		
d)	Group calls/meetings				
e)	Informal calls/meetings				
f)	Email				
g)	Messenger				
h)	Other methods (Slack, Jira, Trello etc)				
6. Prio	ritise communication in order from 1 to 8, where 1 is	s th	e most important communication		
channel and 8	the least important				
a)	One to one				
b)	Group chats				
c)	In a chain of command (through other team members	ers)		
d)	Group calls/meetings				
e)	Informal calls/meetings				
f)	Email				
g)	Messenger				
h)	Other methods (Slack, Jira, Trello etc)				
7. On a scale of 5, how do you rate the effectiveness of communication?					
(1 is lo	w efficiency; 5 is high efficiency)				
a)	1				
b)	2				
c)	3				
d)	4				
e)	5				
8. How long do you have to wait for feedback on average??					
a)	Less than 10 minutes	e)	More than 6 hours		
b)	Up to half an hour	f)	More than 12 hours		
c)	Up to an hour	g)	More than a day		
d)	More than an hour	h)	More than a week		
9. On a	a scale of 5, what is the impact of communicating	witl	n the team on the progress of the		

project?(1 is low impact; 5 is high impact)

a) 1
b) 2
c) 3
d) 4
e) 5
10. How often do you feel that the messages you receive are NOT clear, NOT understandable
and NOT relevant? (1 is very rarely; 5 is always)
a) 1
b) 2
c) 3
d) 4
e) 5
11. Do you think that internal communication within the project team is open and transparent?
a) yes, very open and transparent
b) partially open and transparent
c) no, i do not feel open and transparent
12. How satisfied are you with the speed of receiving responses from other project team
members? (1 is not satisfied; 5 fully satisfied)
a) 1
b) 2
c) 3
d) 4
e) 5

APPENDIX B

Evaluation of external communications in the project audience

1. How did you find out about the project?

a) aggregators

	b)	news		
	c)	a recommendation from friends or colleagues.		
	d)	ads on cryptocurrency forums or communities.		
	e)	advertising on social networks (facebook, twitter, in	st	agram, etc.).
	f)	search engines (google, bing, etc.).		
2.	Are y	you a project contributor?		
	a)	yes		
	b)	no		
3.	How	would you rate the accessibility and clarity of in	fo	ormation about the project on its
	webs	site? (1 is not clear; 5 is clear)		
	a)	1		
	b)	2		
	c)	3		
	d)	4		
	e)	5		
4.	How	How would you rate the quality of communication on the project's official social media		
	chan	nels (e.g. Twitter, Telegram, Reddit, etc.)? (1 is Bad;	5	is Great)
	a)	1 d))	4
	b)	2 e))	5
	c)	3		
5.	How	often do you receive updates from the project regard	rd	ing new developments, events, or
	chang	ges?		
	a)	once every few weeks)	1-2 times a day
	b)	1-2 times a week e))	3-5 times a day
	c)	3-5 times a week f))	up to 10 times a day
6.	Do y	you find enough information about the project team ar	nd	its members?

		54
a	a) yes, i have enough information about the project tear	n and its members.
b	b) most of the necessary information is available, but so	ome details are missing.
c	c) there is not enough information about the project tea	m and its members.
7. Do	o you have access to information about the different stage	ges of the project development and
its	future plans?	
a	a) yes	
b	b) no	
8. Do	pes the project provide regular reports or presentations	on the status of the project and its
ach	hievements?	
a	a) yes	
b	b) no	
9. Do	o you communicate with the project team?	
a	a) yes	
b	b) no	
10. Do	o you feel that the communication with the project team	is transparent and open?
a	a) yes	
b	b) no	
11. Do	you have the opportunity to ask questions and receive	comprehensive answers from the
pro	oject team?	
a)	yes	
b)	no	
12. Wł	hat communication channels do you consider to be	the most effective and useful for
rec	ceiving information about the project?	
a	a) private messages e)	chat support
b	b) social media f)	official email
c	c) forum or community g)	personal communication
d	d) webinars and online conferences	
13. Ha	ave there been any cases when you felt that the inform	ation provided by the project was
lac	cking or unreliable?	

7.

8.

9.

a) yes

b) no

14. How would you rate your interaction with project team representatives at events, conferences				
or online discussions? (1 is Bad; 5 is Great)				
a)	1	d)	4	
b)	2	e)	5	
c)	3			
15. Are	you satisfied with the level of interaction and su	ppo	ort from the project community or	
foru	m? (1 is Bad; 5 is Great)			
a)	1	d)	4	
b)	2	e)	5	
c)	3			
16. How	much trust do you have in the project? (1 is Don't	Trı	ust; 5 is Trust in)	
a)	1			
b)	2			
c)	3			
d)	4			
e)	5			
17. Do you perceive the project's communication as objective and unbiased?				
a)	yes			
b)	no			
18. How	18. How would you rate the overall quality of the project's communication on a scale of 1 to 5 (1			
is not satisfied; 5 full satisfied)				
a)	1			
b)	2			
c)	3			
d)	4			
ŕ	5			
19. Would you recommend this project based on the quality and marketing of the project?				
	yes			
b)	no			