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Preliminary communication
UDC: 629.5.012.2
330.322.01
Received: 30th March 2009
Accepted: 26th April 2009

IMPLEMENTATION OF SHIP INVESTMENT PROJECTS

Ship investment projects are primarily carried out to insure subsistence, growth and development of shipping companies and project oriented companies for multi-project business – shipyards and their subcontractors.

Every project, investment project included, connects different systems and individuals outside and within a shipping company. Therefore, ship investment projects produce project systems aiming at specific targets throughout the project lifetime.

A ship investment project produces a project system within a shipping company and a project oriented company – a shipyard that launches and carries out the ship investment project. We can distinguish two project systems:

- *project system of a client (investor) who commissions and carries out a ship investment project for personal purposes, calls for tenders and afterwards signs a contract with the selected contractor (shipyard),*
- *project system of a contractor (within a shipyard) who manages and carries out the commissioned ship investment project.*

Both systems are interconnected business wise – from the tender phase through implementation all the way to the end of the contractual obligation or other warranties. This is an integrated business system that works based upon a concluded contract thus connecting project and strategy goals of a client with those of a contractor. It is a special form of a project-business partnership.

The below presented model of organising a ship investment project implemented within a shipyard, enables a successful achievement of the objective i.e. the delivery of a built ship investment project – a ship, to the client – a shipping company, in accordance with the contracted parameters. It is by this act that the planned goal of a shipping company – the investor, of a shipyard – the performer and of this research paper is achieved.

Key words: *project, investment project, entrepreneurship project, project system, ship, project oriented company, organisation model, implementation system*

1. INTRODUCTION

The implementation of ship investment projects is a complicated activity which includes the preparation and the execution phase of investment projects within shipping companies. This scientific paper examines the projects from the point of view of the investor (shipping company) as well as from the point of view of the project oriented company for multiproject business (shipyard). The purpose of this scientific paper is to showcase a possible model of investment project implementation in the companies mentioned, in order to emphasize the significance and the importance of ship investment project implementation for the subsistence, further growth and development of both the shipping company – investor and the shipyard – contractor.

2. CONCEPT AND MAIN CHARACTERISTICS OF PROJECTS

The term project comes from the Latin word *projectum*, derived from the word *projicere*, meaning “to throw something forwards”, in which the prefix *pro* denotes something that precedes the action, whereas *jacere* means “to throw”.

The following text quotes some of the definitions of the term project:

- English government agency CCTA (Central Computers & Telecommunications Agency) defines project as a management environment that is created for the purpose of delivering one or more business products according to a specified business case or as a temporary organization necessary for the creation of a specified and predefined product or service with predefined time frame and resources. [8, p.22]
- Leading world organization for the standardization of project management PMI (Project Management Institute) defines project as a temporary defined process necessary to create a unique product or service. This definition includes the words “temporary” and “unique”. The term temporary implies that the project has a definite beginning and end, whereas the term unique implies that the product or service is different from the existing products/services. [9, p.4]
- Project is a combination of limited resources, combined for the purpose of creating something new that will enable the company to launch and implement a strategy. All projects have defined time cycle and are carried out gradually, through phases. [5, p.5]
- Project is a unique time-limited work with tasks set for achieving specified results, at the same time linking different resources. [1, p.24]
- Project is a single business process with clearly set goals and limited time, costs and quality. The achievement of project goals requires spe-

cific project organisation. The project defined in this manner is single, complex, interdisciplinary and bearing risks. [7, p.5]

Most experts from the field of investment projects believe a project must be:

- Purposeful,
- Time limited,
- Single,
- Introduce novelty,
- Complex,
- Have determined financial budget and
- Legal and organizational entity.

Taking into consideration all of the above cited definitions and characteristics of a project we may conclude that projects are tasks with specified characteristics reflected by the complexity of their contents, relative uniqueness, considerable risk and strategic significance for the companies and other organizations involved. In this case projects are intended as objective oriented tasks because the objectives (determined by their scope, dead lines, required resources and costs) are planned, coordinated and agreed. [6, p. 29]

3. CHARACTERISTICS OF SHIP INVESTMENT PROJECTS

Ship investment projects are programme determined single projects because they are found in specified shipyard and contractor development programmes. Purpose, object and end goals of ship investment projects are predetermined at the very phase of launching a ship project, and in any case, before the implementation phase. They are implemented with the purpose of reaching tactical goals of the shipyard development programme through the realization of project objectives and the client's development programme through the realization of the purpose of the exploitation of the project objective. [3, p. 51].

According to a group of authors, an investment project is a designed group of activities used for planning the achievement of company development goals within which capital is being used. The design process of these activities is the process of investment project planning, whereas the period during which the actions take place is called project lifetime.[2, p.49].

From the investor's (client – shipping company) point of view, a ship investment project includes ship construction, reconstruction, repair, education of personnel, introduction of ship information systems, market research

projects, organization projects etc.[1] From the constructor's (shipyard) point of view, ship investment projects can include ship construction, reconstruction, repair etc.[2]

According to the economic effects, ship investment projects can be divided into ship investment projects with direct effects and ship investment projects with indirect effects.

3.1. Ship investment project with direct economic effects

A ship investment project with direct effects is a project that during the object – ship exploitation phase of a ship project lifetime generates income and makes profit. In this way the project enables the return of the invested funds as well as the funds for further growth and development of the shipping company (or shipyard) that launched the project itself, i.e. the project achieves the preset purpose goals of the shipping company.

During the exploitation of the ship project – ship, a point, that is to say, a year of investment return, i.e. the period of time required for the return of the invested funds, can be determined. After that period further exploitation continues until final planned purpose goals of the ship project are reached. This kind of projects includes the following investments or enterprise ventures: construction, reconstruction and ship repair.

3.2. Ship investment project with indirect economic effects

A ship investment project with indirect economic effects is a project that during the object – ship exploitation phase does not generate the return of the funds invested, but the objects enable indirect economic or other effects as purpose goals for shipping companies (or shipyards) i.e. other organized systems. This kind of projects includes ship information projects, education of personnel, increase in quality etc. One example of such a project is given by the ship investment project that enables the achievement of the following effects: increase in quality of information supply, reduction of costs, increase of competitiveness, better company organization, reduction of administrative staff and other.

4. CHARACTERISTICS OF A PROJECT SYSTEM

Every project, ship investment project included, links different systems and individuals within and outside the shipping company, namely:

- External systems include companies, craftsmen, banks, scientific-research institutions, insurance companies, government institutions etc.,

- Within the company these systems include operational units, sub-systems, individuals, management on all levels and owners.

A project system is characteristic for every project – for projects within companies or within other companies, for those carried out by several companies together in various forms of project partnerships, as well as for projects that bear particular importance for the development of the region, state or humankind in general. With regard to the above mentioned, one may conclude that projects create systems which act purposefully until the project reaches its end.

A project system comprehends the project and all of the systems included in the phases of determining the project strategy input or other project orders, the preparation of project launch, the launch of implementation, implementation, management, end and delivery of the project until its exploitation is ensured, regardless of whether the project deals with growth and development of companies or other organizations or with multiproject business of project oriented companies or other organizations [6, p. 195].

When determining the project system, which caused or calls for a project or project programme, the following must be taken into consideration:

- Projects carried out by a company or organization for the purpose of personal development or business,
- Projects which are a part of a multiproject business within project oriented companies,
- Projects which are a result of linking several business or other systems for the implementation of common goals or strategies,
- Single projects, project programmes, project portfolios or multiproject implementation of a strategic development programme,
- Projects that are required for business in the framework of annual plans are mostly urgent;
- Company structure and scope,
- Distribution of locations on which the project is implemented,
- Project complexity and internal and external implementation scope,
- Factors that exercise key effect on the project – positive or negative influence – during decision making or implementation,
- Financial resources of the project.

Ship investment projects also generate a project system within the shipping company and project oriented company – shipyard that launch and implement the ship investment project. We can distinguish between two project systems:

1. project system of a client (investor) who commissions and carries out a ship investment project for personal purposes, calls for tenders and afterwards signs a contract with the selected contractor - shipyard,
2. project system of a contractor (within a shipyard) who manages and carries out the commissioned ship investment project.

Both systems are interconnected business wise – from tender phase through implementation all the way to the end of the contractual obligation or other warranties. This is an integrated business system that works based upon a concluded contract thus connecting project and strategy goals of a client with those of a contractor. It is a special form of a project-business partnership.

5. MODEL OF PROJECT ORGANIZATION WITHIN PROJECT ORIENTED COMPANIES – SHIPYARDS

Project oriented company – shipyard carries out a ship investment project for its client i.e. buyers within the country or abroad. Regardless of the diversity of ship investment projects, the following elements can be distinguished in their project systems:

- client system (BPN) – shipping company which, as a rule, selects the contractor company – shipyard -through tender procedure,
- contractor company – shipyard which has been selected by the client system – shipping company - as the most acceptable,
- contractor company project sub-systems – shipyards which form the main system, the client system as well as the internal and external contractor system.

For the implementation of the ship investment project an internal or own management model is used, picture 4.1. According to this model a client system – shipping company (BPN) commissions a ship project – ship from a project oriented company – shipyard. Client's ship investment project (IBP0) has to be prepared in a form of a preliminary (actuation) study complete with the call for proposal. This can also be a preliminary project documentation if the client already drafted the documentation or had done so at the moment of gathering tenders for project implementation, or if the client ordered the drafting of documentation by the ship project company as a project of preliminary project documentation drafting.

The client – shipping company - system (BPN) has signed the contract for the implementation of the ship investment project – ship (IBP0) with the main shipyard system (GSB). The main shipyard system (GSB) is preparing the ship investment project – ship (IBP1) and is setting the internal ship investment

management system (USVIBP) in order to implement the ship investment project – ship (IBP0). According to the ship investment project plan – ship (IBP2), the internal ship investment management system (USVIBP) is including internal contractors (USI) in the implementation of the sub-project (IBP2X) and external contractors (VSI) in the implementation of the sub-project (IBP2Y).

Ship investment project - ship (P1) accepts the offer, the contract, the internal preliminary (actuation) study[3] and other project documentation.

The project system of the above cited ship investment project organization requires the following contracts:

- contract between the shipping company – client (BPN) and the shipyard (in picture 4.1. represented by GSB – main shipyard system, SVIBP – ship investment project management system and USI – internal implementation system);
- contract between the shipyard and the sub-contractor company (in picture 4.1. VSI – external implementation system).

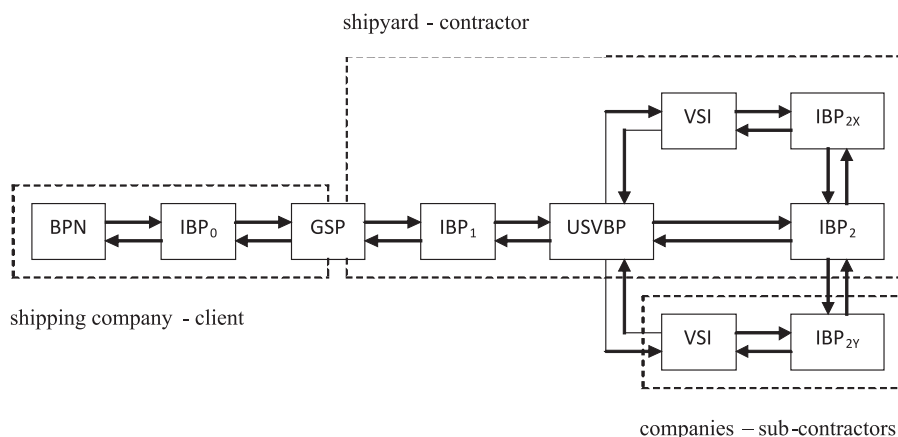


Figure 1. Model of organizing a ship investment project in a shipyard with internal management

Source: Created by the authors

LEGEND:

BNP – shipping company – client
 IBP0 – ship investment project P0
 GSB – main shipyard system
 IBP1 – ship investment project P1
 USVIBP – internal ship investment project management system

USI – internal implementation system
 VSI – external implementation system
 IBP2 - ship investment project P2
 IBP2X - ship investment project P2X
 IBP2Y - ship investment project P2Y

6. CONCLUSION

Every project, ship investment projects included, needs to determine a project system that aims at achieving its target until the end of the project. In ship investment projects, project system is created within the shipping company and the project oriented company – shipyard – that launch and implement the ship investment project. Given the fact that the planned product of the mentioned systems is a competitive ship as a means of transport that will enable subsistence, growth and development of the mentioned systems, it is necessary to use an adequate model of ship investment project organization. This paper sets and showcases a model of an internal or own management that enables the achievement of the mentioned targets.

The recommendations for an additional research in ship investment problematic should encourage the research in other investment project organizational models, as well as in the setting of an adequate project organization and management.

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[1] See [4, p. 209-217]

[2] See [3, p. 45-56]

[3] Launching of ship project includes ship project planning, setting up of project organisation, determining project organization rules, settling personnel issues, determining supervision and installing ship project information system. See [6, p. 249]

Sažetak

IZVOĐENJE INVESTICIJSKIH BRODSKIH PROJEKTA

Investicijski brodski projekti izvode se da bi prvenstveno osigurali opstanak, rast i razvoj brodarskih poduzeća te projektno usmjerenih poduzeća za multiprojektno poslovanje – brodogradilišta i njihovih koperanata.

Svaki projekt pa tako i investicijski brodski projekt povezuje različite sustave te pojedince izvan i unutar brodarskog poduzeća. Dakle, investicijskim brodskim projektima nastaju projektne sustavi koji ciljano djeluju do završetka projekta.

Kod investicijskog brodskog projekta nastaje projektne sustav unutar brodarskog poduzeća i projektne usmjerenog poduzeća – brodogradilišta, koji investicijski brodski projekt pokreću i izvode. Možemo govoriti o dvama projektne sustavima:

projektne sustav naručitelja (investitora) investicijskog brodskog projekta, koji izvodi projekt za vlastite potrebe te traži ponude, a onda s odabranim izvođačem (brodogradilištem) potpisuje ugovor,

projektne sustav izvođača (unutar brodogradilišta) naručenog investicijskog brodskog projekta koji preuzima vođenje i izvodi ga.

Oba se sustava poslovno povezuju – od faze ponude, izvedbe pa sve do završetka ugovorene obveze ili drugih jamstava. Riječ je o integriranom poslovnom sustavu, koji djeluje na osnovi zaključenog ugovora i tako povezuje projektne i strateške ciljeve naručitelja i izvođača u projektne-poslovno partnerstvo posebnog oblika.

Prikazani model organiziranja investicijskog brodskog projekta u brodogradilištu s unutarnjim vođenjem omogućava uspješno postizanje objektnog cilja, tj. isporuku sagrađenog investicijskog brodskog projekta – broda, naručitelju – brodarskom poduzeću po ugovorenim parametrima. S tim činom postiže se planirani cilj brodarskog poduzeća – investitora, brodogradilišta – izvođača, a i ovog istraživanja.

Ključne riječi: *projekt, investicijski projekt, poduzetnički projekt, projektne sustav, brod, projektne usmjereno poduzeće, model organiziranja, organizacija, sustav vođenja*

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