

**Ante Bistričić, Ph. D.**  
**Alen Jugović, Ph. D.**  
**Jelena Perušić, student**  
Faculty of Maritime Studies Rijeka  
Studentska 2  
51000 Rijeka, Croatia

**Preliminary communication**

UDK: 330.322:629.5

65.012.4

Received: 10<sup>th</sup> September 2008

Accepted: 18<sup>th</sup> October 2008

## **INVESTMENT PROJECTS WITH DIRECT ECONOMIC EFFECTS FROM THE INVESTOR'S – SHIPPING COMPANY – POINT OF VIEW**

*All companies and other systems, including shipping companies that have set a quality vision, mission, strategic goals and strategy believe in themselves and in their future. They believe that they will be able to meet the needs of their internal and external surroundings for which they were initially founded. In order to gain quality in achieving strategic goals they set i.e. in order to quickly implement their strategy which is a prerequisite for survival on the global market, they must be acquainted with project issues. For this reason the authors of this paper elaborate the project issues in a systematic and concise manner, with particular emphasis to: project, project types, investment projects and their lifetime, shipping investment projects from investor's – shipping company – point of view, investment decision.*

*Special attention is paid to shipping investment projects with direct effects since these projects generate income or gains during the exploitation phase which guarantees investment return as well as further growth and development of shipping company.*

**Key words:** *project, investment project, ship, shipping project, project lifetime, project management*

### **1. INTRODUCTION**

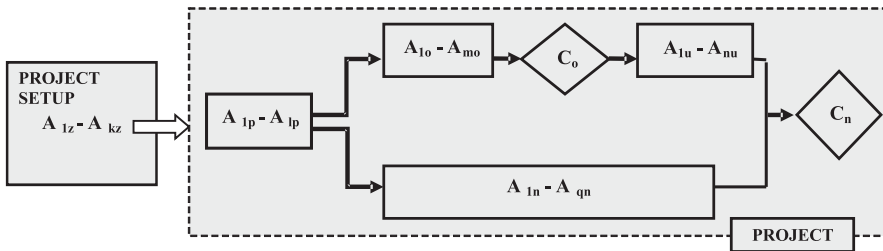
Investment projects are complex and they can be classified as large determined project types. This scientific paper deals with features of investment projects, their role and implementation with special emphasis on shipping investment projects. Shipping investment projects are examined from the investor's, that is, the shipping company point of view. Purpose of this scientific paper is to present a shipping investment project with direct effects and to in-

dicare the meaning of shipping investment projects with direct effects on further growth and development of a shipping company, that is, on fast and efficient implementation of the development strategy and on achieving the established strategic goals.

## 2. KEY PROJECT FEATURES

A project is a finite process of forming and performing certain activities that are logically connected in achieving sub goals, and by further connecting these activities based on these sub goals, the objective and targeted final goal is reached [1, 61]. Scheme 1 shows a project in the activity block structure.

*Scheme 1. Project in the structure of objective and targeted goals*



### LEGEND:

- $A_{1z} - A_{kz}$ : actuating activities for project setup
- $A_{1p} - A_{kp}$ : preliminary activities for the preparation of objective and targeted activity performance
- $A_{1o} - A_{mo}$ : through objective activities, all objective goals are realized as project results, and together they lead to the final objective goal, which represents the objective project conclusion
- $A_{1u} - A_{nu}$ : introduction activities, used to prepare the project object for achieving the final targeted goal
- $A_{1n} - A_{qn}$ : targeted activities ensure all other activities and conditions for achieving the final targeted goal, and they are performed simultaneously with objective and setup activities
- $C_o$ : achieving objective goal<sup>1</sup>
- $C_n$ : achieving targeted goal<sup>2</sup>

Source: Hauc, A.: Projektni menadžment, GV Založba, Ljubljana, 2007., p. 62.<sup>12</sup>

<sup>1</sup> In projects with constant economic effects, such as shipping investment projects, the objective goal is achieved if the ship is built in the execution stage

<sup>2</sup> Targeted goal is achieved in the exploitation stage of a shipping investment project with constant economic effects

In order to facilitate understanding of the previous scheme, it is necessary to define certain basic terms. Project connotes a venture that needs to be finished within a specific timeframe, with a specific goal and specific grading criteria of realization validity. As a guide, it should be understood that a project is a one-time business process with clearly defined goals and timeframe, costs and quality. In order to achieve project goals, we need project organization. Main features of projects are: one-time basis, complexity, interdisciplinary and hazardousness. [2, 5]

Beside the above mentioned definition, there are other definitions of projects. A certain group of authors defines a project as a process of business strategy execution, where a strategy is marked as a prognosis of business and company development factors, and which is established in a given moment, while strategic goals will be accomplished in the future, within certain given deadlines. It is necessary to note that such strategy execution is accomplished only with targeted and time-limited processes, one of which is a project.

Projects vary according to the economic or other field which they are executed in, their duration, complexity, object location, exponent engagement, economics, clients, etc. There is no single unambiguous classification of projects in literature or practice. In this paper, we shall use the classification that involves projects with direct economic effects, specifically [1, 77]:

- determined,
- stochastic,
- primary internal,
- primary external,
- projects on a one-time basis,
- multiproject processes,
- large projects,
- project programs,
- projects with direct economic effects, and
- projects with indirect economic effects.

Projects with direct economic effects include shipping projects when taken from investor's – shipping company or client's – shipbuilding company point of view.

Regardless of the type they belong to, in order for projects to be realized, they should timely ensure considerate amounts of knowledge and financial resources and therefore we can call them investment projects, as well.

### 3. SHIPPING INVESTMENT PROJECTS

Shipping investment projects are one-time projects with determined programs, considering the fact they occur in specific shipbuilding and client's development programs. Targeted and objective final goals are predetermined in the setup stage of the shipping project, and most certainly prior to execution stage. They are executed with a view to accomplish tactical goals of shipbuilding development program through realization of project and client's object and through realization of project object execution purpose [3, 51].

According to a group of authors, investment projects are planned sets of timed actions in order to accomplish company development goals and which are set as a frame for fund usage. Planning process of these actions is a process of investment project planning. Duration of these actions is called the project span. [4, 49]

Shipping investment project from investor's (client's) point of view may include shipbuilding, reconstruction, repairs, staff training, introduction of shipping information systems, etc. In this paper, shipping investment projects with direct economic effects include shipbuilding from shipping company – investor's point of view.

#### 3.1. Shipping investment projects with direct economic effects

Shipping investment projects with direct effects are projects that ensure income and profit in the stage of object – ship exploitation in the shipping project span. Thus they enable investment return and generation of resources for further growth and development of the shipping company that actuated them, i.e. they accomplish established targeted goals of the shipping company.

During exploitation of the shipping project – ship, the year of the investment return or the necessary period for investment return can be registered. Further exploitation follows after determining a return “point”, and it lasts until the planned final targeted goal of shipping investment projects is accomplished.

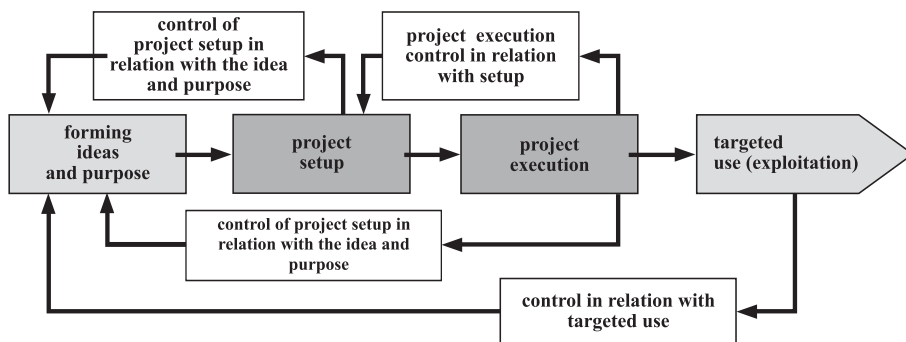
#### 3.2. Shipping investment project span

Shipping investment project span from the investor's – shipping company point of view consists of the following stages [5, 122]:

- shipping investment project setup stage,
- shipping investment project execution stage, and
- exploitation (or targeted use) of shipping investment project.

Project investment process is composed of the above mentioned shipping investment project span stages, as illustrated on scheme 2.

*Scheme 2. Project investment process*



Source: Created by authors

**Shipping investment project setup stage** begins with accepting the strategic business development plan of the shipping company where ideas and purposes of shipping project creation are formed. Here the shipping investment project setup represents creation of the first elaborate. This is a complete description of the shipping investment project, or generally of its presentation, where central place belongs to the shipping investment project as execution technology.

**During the shipping investment project execution stage**, it is determined when all the setup phases are finished in order to start the execution of the shipping investment project, and whether project setup is such that it will enable achieving the purposes from the ideas. This is controlling shipping investment project setup in accordance with the formed ideas and purpose. Shipping investment project execution is the result of this investment decision only. During shipping investment project execution and within shipping investment project management, two controls should be performed:

- control of shipping investment project execution in relation with shipping investment project setup (first elaborate), and
- control of shipping investment project in relation with the formed idea and purpose.

Control of shipping investment project execution in relation with shipping investment project setup is performed by project management or direct managers of shipping investment project. They determine whether shipping investment project is being executed in accordance with first elaborates, that specify project goals, execution tactics, timeframes, financial plans, etc.

Control of shipping investment project execution in relation with the formed idea and purpose means checking whether shipping investment project execution is in accordance with them. Controlling process performed after completion of shipping investment projects is called targeted use control, and

it is executed with regard to the formed idea that caused the project investment process execution.

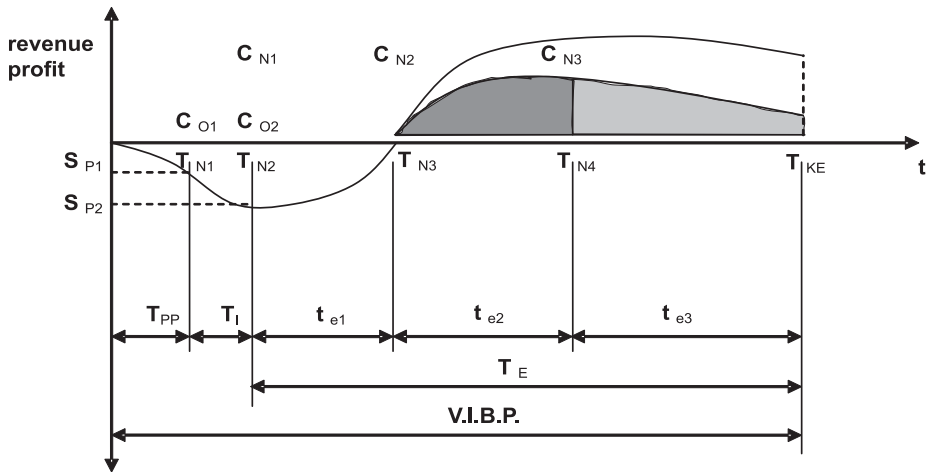
Span of a shipping investment project with direct economic effects is illustrated in scheme 3. Shipping investment project can begin when shipping investment project setup is done and when the first elaborate is created and confirmed. When it is finished, exploitation continues from  $TE$  to  $TKE$ .

Important points in the whole shipping investment project span are:<sup>3</sup>

- from shipping investment project setup  $t_{pp}$  until the first project results execution  $C_{pp}$  in  $T_{N1}$ , all costs of shipping investment project setup  $SpI$  must be covered. The accomplished project result (confirmed first elaborate) will enable execution stage, which will ensure accomplishment of objective goals, and thus accomplishment of the first objective goal  $COI$ ;
- during shipping investment project execution *i.e.* until all objective goals are accomplished as project results  $C_i$  in  $T_{N2}$ , all project costs should be covered (in execution stage)  $S_{p2}$ . Accomplished project result (object – ship) enable exploitation, which will ensure income and thus accomplishment of the first economic targeted goal  $C_{N1}$  after project execution  $t_i$  and objective end of project  $C_{O2}$ ;
- during exploitation  $t_{e1}$  after  $T_{N2}$ , by achieving income and profit, investment return is accomplished in  $T_{N3}$ , which can be labeled as accomplished second economic goal  $C_{N2}$ ;
- with further exploitation after some time  $t_{e2}$ , profit is gained (shaded area) and thus generated resources that can be invested into new projects. The next important economic goal,  $C_{N3}$  is accomplished;
- exploitation ends during  $T_E$ , in  $T_{KE}$ , and usually it is expected that income and profit will fall, and shipping company should be prepared for that either with a project for exploitation recall (e.g. selling of the ship or breaker's yard) or with a project that will ensure further income and profit gain after exploitation (e.g. ship reconstruction).

<sup>3</sup> Most shipping companies will give the setup stage and the execution stage of shipping investment project over to shipbuilding companies, that is to companies with project production profiles. See [5] for more information about this.

*Scheme 3. Span of shipping investment project with direct economic effects*



**LEGEND:**

**V.I.B.P.** span of shipping investment project with direct economic effects

$T_{PP}$  duration of shipping investment project setup

$T_i$  duration of shipping investment project creation

$T_E$  duration of shipping investment project exploitation, consists of  $t_{e1} + t_{e2} + t_{e3}$

$T_{PP} + T_i$  duration of shipping investment project execution

$T_{N1,2,3}$  durations of certain stages of investment project execution

$T_{KE}$  end of exploitation stage, i.e. shipping investment project span

$t_{e1}$  time of income and profit gain for investment return

$t_{e2}$  time of income and profit gain for investment into new projects

$t_{e3}$  time of income and profit fall

$S_{p1}$  costs of shipping investment project setup

$S_{p2}$  costs of shipping investment project creation

$C_{o1}$  start of shipping investment project creation

$C_{o2}$  objective end (e.g. end of shipbuilding) of shipping investment project;

$C_{N1}$  accomplishment of the first targeted goal, start of shipping project exploitation

$C_{N2}$  accomplishment of the second targeted goal, return of investment in shipping investment project;

$C_{N3}$  accomplishment of the third targeted goal, generated resources for investment into new projects

Source: Created by authors

Scheme 3 illustrates span of shipping investment project with direct economic effects and its stages and key events in each stage, according to the following formula:

$$\mathbf{V.I.B.P. = TPP + TI + TE}$$

After the test drive in the project object (ship) building stage, the process of shipping project (ship) takeover may begin. Shipbuilding company with a project production profile that the investor (shipping company) hired for the shipping project (ship) building stage has to turn the ship over to the investor (i.e. their functional management) for further use. Functional management is responsible for success of the planned implementation of exploitation stage in the project span.

By the time of ship takeover, shipping company should have financed the shipping project, i.e. cover all expenses with their own resources, credits or from other sources, such as investments in economy, etc.<sup>4</sup>

Financing navigation and covering initial expenses is a condition for beginning of shipping project (ship) exploitation, i.e. beginning of shipping investment project's accomplishment of targeted goal, which is planned income and profit. The final targeted goal of a shipping project (ship) will be accomplished when the shipping project span ends, i.e. after the end of the exploitation stage.

In the initial project strategy, investor (shipping company) should provide for the strategy of exploitation completion. There are two basic strategies in practice: [6, 88]

1. *waiting strategy* – it means that in the project setup stage or later, shipping company decided to perform exploitation when possible and then prepare for a new project or several projects, that is for their exploitation or prolongation of the current one;<sup>5</sup>
2. *exploitation final deadline strategy* (that is, predetermined strategy of exploitation end) means that shipping company already determined a deadline for exploitation end  $T_{KE}$  during project setup; at the same time, it determined other deadlines – key points of a lifespan and in doing so, in timely manner it started a new project or several of them, which will help them ensure new exploitation with no income or profit loss.

Delayed execution of shipping investment project, illustrated in scheme 4, has adverse and negative consequences, and the most important are:

<sup>4</sup> Investor – shipping company often makes the last payment for the taken shipping investment project – ship to the shipbuilding company that built the ship after the guarantee period.

<sup>5</sup> Waiting strategy is unacceptable in current circumstances and it can seriously imperil shipping companies or even bring about a big business crisis as there are no investments into development in time.



- additional financial resources, necessary for shipping investment project to end, have to be ensured by the shipping company;
- due to prolongation of the shipping investment project execution stage, beginning of exploitation is extended, which causes unrealized planned income;
- deadline for investment return is extended, which affects financial planning in general;
- there is a possibility of losing cargo with long-term consequences in unrealizing planned income and profit during shipping investment project exploitation stage, thus slowing down the planned growth and development of shipping company;<sup>6</sup>
- if no person is responsible for the delay, for which there may be no real reason, this supports the feeling that shipping project delays are possible and acceptable as a rule, which can bring serious consequences and numerous problems to the shipping company management, and cause low level of project culture;

The calculation of income loss or rise of costs, therefore loss of profit due to shipping investment project delay, itself should be a sufficient reason to ensure such project work that would prevent delays for which there are no real reasons, but are consequences of bad organization, poor communication, low level of planning culture, etc.<sup>7</sup>

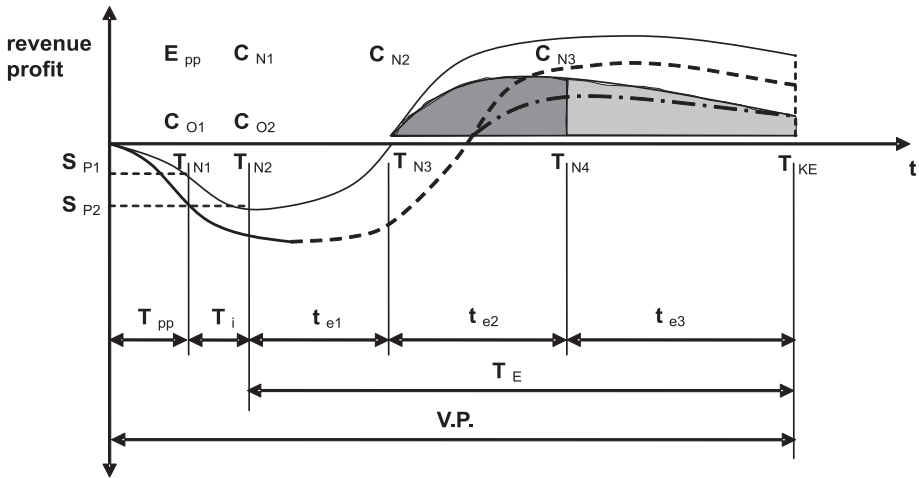
An important factor in this can be properly organized project management with a project leader or leading project team.

---

<sup>6</sup> Shipbuilding company, that is, company with project production profile that the investor – shipping company hired to build a ship is responsible for the consequences; they will pay penalties to the investor, record business losses (with possible bankruptcy), lose reference, have no development investments, etc.

<sup>7</sup> That is, any other negative arrangement in each stage of shipping project span, e.g. delays in shipping investment project setup stage, rise of expenses in exploitation stage, etc.

Scheme 4. Planned and delayed shipping investment project execution



## LEGEND:

- V.P.** span of shipping investment project with direct economic effects
- $T_{pp}$  duration of shipping investment project setup
- $T_i$  duration of shipping investment project creation
- $T_E$  duration of shipping investment project exploitation, consists of  $t_{e1} + t_{e2} + t_{e3}$
- $T_{pp} + T_i$  duration of shipping investment project execution
- $T_{KE}$  end of exploitation stage, i.e. shipping investment project span
- $T_{N1,2,3}$  durations of certain stages of investment project execution
- $t_{e1}$  time of income and profit gain for investment return
- $t_{e2}$  time of income and profit gain for investment into new projects
- $t_{e3}$  time of income and profit fall
- $S_{p1}$  costs of shipping investment project setup
- $S_{p2}$  costs of shipping investment project creation
- $C_{o1}$  start of shipping investment project creation
- $C_{o2}$  objective end (e.g. end of shipbuilding) of shipping investment project;
- $C_{N1}$  accomplishment of the first targeted goal, start of shipping investment project exploitation;
- $C_{N2}$  accomplishment of the second targeted goal, return of investment in shipping investment project;
- $C_{N3}$  accomplishment of the third targeted goal, generated resources for investment into new projects

#### **4. SHIPPING PROJECT INVESTMENT DECISION**

Shipping project investment decision is not a single action, but includes several different decisions, not brought simultaneously; therefore the investment decision for a shipping project should be seen as a series of decisions in the shipping investment project span. This shipping project investment decision series includes (only the most important are listed):

- acceptance of the shipping company's strategic project plan,
- acceptance of the annual plan,
- acceptance of the first elaborate,
- acceptance of the investment study,
- appointing managers for the project,
- designating the project manager,
- acceptance of the actuating elaborate,
- acceptance of debentures with financial institutions,
- acceptance of the activity plan rebalance (financial plan, etc),
- acceptance of the project execution stage, i.e. object – ship,
- designating functional and operation managers in the exploitation stage,
- acceptance of the decision to ensure trade resources,
- acceptance of the decision to end exploitation,
- and others.

Considering the above, it can be concluded that the shipping project investment decision implies series of actions performed during the defined shipping investment project span, and not in the given moment.

#### **5. CONCLUSION**

Shipping investment projects with direct effects are very important for shipping companies because these projects in the exploitation stage of shipping project span generate income, that is, profit, ensuring investment return and further growth and development of shipping companies. Understanding the project approach is required in order to accomplish established project goals, and to implement strategies fast and efficiently, i.e. to achieve strategic goals of the shipping company. Therefore highest (top) managements of shipping companies should insist on continuing education on all levels of management and functional levels of companies, especially in their development functions.

Although the object of research in this scientific paper is shipping company and its investment, it should be noted that the defined methodology and research results can be applied to other market-oriented companies.

## BIBLIOGRAPHY

- [1] Hauc, A., Projektni management, Ljubljana, GV Založba, 2007.
- [2] Semolič, B., Strukture znanj projektnega managementa, Ljubljana, ZPM-a, 1999.
- [3] Bistričić, A., H. Bezić, D. Buić, Multiprojektno poslovanje brodograđevnih poduzeća i usluga banke u financijskom praćenju brodskih projekata, Pomorstvo, 21(2007), str. 45-56.
- [4] Bendeković, J. et. al., Planiranje investicijskih projekata, knjiga 1, Zagreb, Ekonomski institut, 1993.
- [5] Bistričić, A., Poduzetništvo, Rijeka, Pomorski fakultet Sveučilišta u Rijeci, 2007.
- [6] Hauc, A., Projektni menadžment i projektno poslovanje, Zagreb, M.E.P. Consult, 2007.

### Summary

## INVESTICIJSKI PROJEKTI S NEPOSREDNIM EKONOMSKIM UČINCIMA ZA BRODARSKO PODUZEĆE

*Sva poduzeća i drugi sustavi, pa tako i broderska poduzeća koja imaju kvalitetno postavljenu viziju, misiju, strategiju i strateške ciljeve vjeruju u sebe i u svoju budućnost. Vjeruju da će zadovoljiti svoje interno i eksterno okruženje zbog čega su i osnovani. Da bi kvalitetno ostvarili postavljene strateške ciljeve, tj. brzo implementirali strategiju, što je preduvjet opstanka na globalnom tržištu, potrebno je poznavati projektnu problematiku. Stoga se u ovome znanstvenom radu sustavno i koncizno elaborira projektna problematika i to: projekt, vrste projekta, investicijski projekt i njegov vijek, investicijski brodski projekt sa stanovišta investitora broderskog poduzeća i investicijska odluka.*

*Posebnu pozornost posvećena je investicijskom broderskom projektu s neposrednim učincima iz razloga što ti projekti u fazi eksploatacije vijeka broderskog projekta ostvaruju prihod, odnosno dobit koja osigurava povrat uloženih sredstava te daljnji rast i razvoj broderskog poduzeća.*

**Ključne riječi:** *projekt, investicijski projekt, brod, brodski projekt, vijek projekta, projektni menadžment*

**Dr. sc. Ante Bistričić**

**Dr. sc. Alen Jugović**

**Jelena Perušić, student**

*Pomorski fakultet u Rijeci*

*Studentska 2*

*51000 Rijeka*