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PODLOŽNOST KAO BITAN ČIMBENIK POMORSKIH NEZGODA

COMPLACENCY – MAJOR CAUSE OF MARITIME CASUALTIES

SAŽETAK

Pojam podložnosti (engl. complacency) kao jedan od vodećih čimbenika u pomorskim nezgodama definira se i analizira u ovome radu. U tom smislu ovo je pokušaj dopune definicije ljudske pogreške s navedenim pojmom radi jasnijeg sagledavanja ljudskog čimbenika u pomorskim nezgodama. Utjecajno područje navedenog pojma odnosi se na domenu unutarnje i vanjske komunikacije na brodu, organizacije upravljanja brodom, utjecaja osobnih stavova kao i utjecaja aktualne tehnologije primijenjene na brod. Primijenjujući iskustva stvarnih pomorskih nezgoda autori su pokušali procijeniti utjecaj pojma podložnosti.

Ključne riječi: podložnost, autoritet, nezgoda, uprava, vodstvo, rizik, stav

ABSTRACT

The concept of Complacency as one of the factors leading to maritime casualties is defined and analyzed in this paper. In that sense, this is an attempt to clearly define and contribute to a complete definition of human error, which is the main cause of most recent maritime casualties, by the meaning and determination of the influential area of the concept mentioned above. The influential area comprises the domains of external and internal communications, style of ship managing, influence of personal attitudes as well as influence of contemporary technology applied to ships. Using real maritime accidents data the authors are trying to estimate the contribution of complacency.

Key words: complacency, authority, maritime accident, management, leadership, risk, attitude

1. UVOD

Brodarstvo i plovidba morem 20. i 21. stoljeća opterećeni su mnogobrojnim proturječjima tehnološkog, ekonomskog i organizacijskog razvoja. Ta proturječja postaju očita uvidom u pomorske nezgode zabilježene tijekom prošlog i početkom ovoga stoljeća.

Današnji brodski sustavi su tehnološki napredni i izuzetno pouzdani. Pa ipak, pomorske nezgode i dalje su vrlo učestale. Moguće je, da suvremena tehnologija broda i pouzdanost sustava na brodu čine relativno mali udio u sigurnosti broda.

Sigurnost na suvremenom brodu uz sva tehnička i tehnološka poboljšanja nije zadovoljavajuća budući da je u 75 – 96% pomorskih nezgoda uključena pogreška posade (Rothblum 2000:1). Točnije u 93% slučajeva multiplicirane pogreške dvojice ili više članova posade dovele su do pomorske nezgode, a počinjene pogreške procijenjene su kao *bitan uvjet* s gledišta posljedica (Rothblum, ibid.). Međutim, ako se pogreške članova posade podijele na pogreške upravljanja i operativne pogreške, onda 71% otpada na pogreške upravljanja (DNV 1990:7).

Razloge pomorskih nezgoda djelomice je moguće objasniti i utjecajem pojma podložnost (engl. *Complacency*) kao posebno utjecajnog sociološko-psihološkog čimbenika koji će biti detaljno obrazložen.

2. PODRUČJA UTJECAJA I DEFINICIJA POJMA PODLOŽNOST

Neprikladna komunikacija i loši suradnički odnosi, kako na brodu tako i u odnosu brod - vanjski čimbenici, jedan je od osnovnih uzroka nastanka podložnosti koja se odražava u nepravilnim odlukama i neučinkovitom djelovanju.

Geneza podložnosti proizlazi kako iz modela organizacijskog ustroja broda i načina rukovođenja tako i iz interaktivnog odnosa brod vanjski čimbenici.

U tom smislu prvo uočeno područje značajne manifestacije pojma podložnosti jest brodska organizacija kao samostalna cjelina, a drugo je u interakciji s organizacijom brodara na kopnu. Iz analize pojedinih prometnih nezgoda zabilje-

1. INTRODUCTION

Shipping and maritime navigation of the 20th and 21st centuries are burdened by lots of contradictions related to technological, economic and organisational development. These contradictions become apparent through an insight into maritime accidents recorded in the last and early this century.

Modern ship navigation systems are technologically advanced and extraordinarily reliable. Nevertheless, maritime accidents are still very common. It is possible that the reason lies in the fact that modern ship technology and system reliability on board make a relatively small part in the ship's safety.

Safety on board modern ships, with all technical and technological improvements, is not satisfactory since 75 – 96% of maritime accidents include crew's errors (Rothblum 2000:1). More precisely, in 93% of the cases multiplied errors made by two or more crewmembers led to maritime accidents and the errors made have been assessed as *conditio sine qua non* from the aspect of the consequences (Rothblum, ibid.). However, if the errors made by crewmembers are divided into management errors and operational errors, then 71% of them are management errors (DNV 1990:7). The reasons of maritime accidents can partly be explained by the influence of the notion of Complacency as a specially influential socio-psychological factor that will be discussed in detail in the following chapters.

2. INFLUENCE AND DEFINITION OF COMPLACENCY

Inappropriate communication and poor cooperative relationship both on board a ship and in the relation ship – external factors, represent one of the basic causes of Complacency that is reflected in inadequate decisions and inefficient actions.

The genesis of the notion is rooted not only in the model of ship's organisation and management style but also in an interactive relation of the ship to external factors.

In that sense, one marked area of significant manifestation of the notion of Complacency is the ship's organisation as an independent unit while the other area is in interaction with the

ženi su sljedeći autonomni i interaktivni negativni utjecaji spomenutog pojma:

- negativni utjecaj brodarske kompanije (uprave) izražen kroz dominantnu komunikaciju kompanija – brod pri čemu posada udovoljava interesima kompanije protivno svojim uvjerenjima i stavovima koji se tijekom vremena gube, pasiviziraju i transformiraju u stavove podložnosti u odnosu na kompaniju – *podložnost upravi*;
- negativni utjecaj vodstva izražen kroz dominaciju pri čemu posada udovoljava zahtjevima autoriteta potiskujući osobne stavove i uvjerenja te postaje nekritično podložna zapovjedniku – *podložnost vodstvu* ;
- negativni utjecaj stečenog osjećaja superiornosti i osobnog značaja na promjenu osobnih, prethodno pozitivnih stavova te podilaženje osobnom osjećaju važnosti – *podložnost osobnoj važnosti*.

Pojam *complacency* primijenjen je temeljem iskustava iz zrakoplovne industrije u kojoj je između 60-tih i 70-tih godina prvi put upotrebljen kao objašnjenje nastanka zrakoplovnih nezgoda. U dosadašnjim analizama pomorskih nezgoda spomenuta riječ ili pojam sporadično se primjenjuje bez jasnijeg značenja i uzročno-posljedične veze.

Engleska riječ *complacency* označava spomenute utjecaje kao samodopadnost ili samozadovoljstvo. U širem smislu to znači preveliko samopouzdanje ili egoistično zadovoljstvo. Takvim slijedom neki autori (Fahlgren) riječ *complacency* prevode posljedičnim oblikom njenog osnovnog značenja kao “nedostatak motivacije”, “nedostatak discipline”, “nedostatak koncentracije” ili “osjećaj da će netko i/ili nešto drugo voditi računa o problemima na brodu” što u krajnjoj liniji dovodi do podložnosti upravi kompanije, zapovjedniku, tehnologiji ili pak osobnom osjećaju važnosti.

Značenje pojma *podložnosti* s psihološkog gledišta predstavlja proces postupne promjene stavova koji “dobrog” pomorca transformiraju u “lošeg” pomorca. Pri tome je postupna promjena stavova uzrokovana utjecajem hijerarhijskog autoriteta i subordinirajućim utjecajem kompanije (menadžmenta). U tom smislu promjena kroz *zakočenost* započinje kao nehotična reakcija na lošu komunikaciju ili neugodnu okolinu (hijerarhijski odnosi) unutar koje se dotična osoba ili osobe mogu osjetiti nevažni-

organisation of the company ashore. From the analysis of different maritime accidents the following autonomous and interactive negative influences of the above mentioned notion have been noted:

- The negative influence of the Shipping Company (Management) expressed through the dominant communication company – ship in which process the crew meets the interests of the Company against their own beliefs and attitudes which are eventually lost, or become passive and transform into submissive attitudes – Management complacency.
- The negative influence of leadership expressed through domination in which case the crew meets the requirements of the authority suppressing personal attitudes and beliefs – Leadership complacency.
- The negative influence of the acquired feeling of superiority and personal significance to the change of personal, previously positive attitudes – Self-induced complacency.

The application of the notion of Complacency is based on the experiences from the aircraft industry where it was first used in the late sixties of the 20th century to explain the occurrence of aircraft accidents. In the analysis of maritime accidents made up to date the word or concept mentioned above has been sporadically used without a clear meaning or cause-and-effect relationship.

The English word Complacency marks the above mentioned influences such as self-sufficiency or self-satisfaction. In a wider sense, it means too much self-confidence or egoistic pleasure. Thus, some authors (e.g. Fahlgren) translate the word by the consecutive form of its basic meaning as lack of motivation, lack of discipline, lack of concentration, or feeling that somebody and/or something else will take care of the problems on board.

The word Complacency derives from the Latin word *complaceo*, Cui, citus sum that means to be liked, to gain favour, to find favour with, and as regards the form of the word it resembles another English word, compliance, that means consent, indulgence, satisfying or pleasing. It is interesting that the true sense of the English word Complacency can be even better explained by the Italian word *compiacere* that derives from the same Latin root meaning be helpful and indulgent.

ma. Takva reakcija vidljiva je nakon dužeg vremena (nekoliko godina) iz načina na koji se osoba ili osobe prilagođavaju okolnostima. Način prilagodbe uočljiv je kroz postupno mijenjanje osobnih stavova što u konačnom rezultira nesvjesnim nekorištenjem mogućih znanja i sposobnosti.

Prema tome *podložnost* primijenjena na radne zadatke i postupke pomorca na brodu upućuje na modificirano mentalno stanje u kojem ponašanje pomorca proizlazi iz nesvjesno formiranih stavova kao rezultata prilagodbe uvjeta loše komunikacije i neugodne okoline.

Ovaj fenomen Wiener (Fahlgren, 2000:74) sa Sveučilišta u Miamiu objašnjava:

“Podložnost može djelovati na bilo koju osobu bilo kojeg zanimanja, kad osoba osjeća da su njezine vještine, znanje i iskustvo dovedeni u pitanje od strane pretpostavljenih. Rezultat toga jest promjena stavova uzrokovana postupnim sprječavanjem kreativnosti.”

2.1. Podložnost autoritetu uprave kompanije

Podložnost upravi nastaje u uvjetima loše komunikacije između posade broda i uprave – brodarske kompanije. Komunikacija između uprave i posade naglašava dominaciju uprave, koja po načinu izmjene informacija odgovara lošem odnosu roditelj – dijete. U takvim odnosima posada broda osjeća se kritiziranom, kontroliranom, nevažnom, nesaslušana od uprave i sa stalnim osjećajem moguće represije pokazuje znakove *ustrasnosti*.

Zbog toga se aktivno znanje, kreativnost i motivacija postupno potiskuju. Posada još uvijek potencijalno raspolaže kvantumom znanja, kreativnosti i motivacije, ali nije stimulirana upotrebljavati ga (*zakočenost*). S vremenom, uslijed zanemarivanja osobnih mišljenja posade o sigurnosti, ili drugim bitnim elementima vezanim uz upravljanje i održavanje broda, dolazi do transformacije pojedinaca u osobe koje zapravo više ne daju nikakve povratne informacije i čiji interes za aktivnim učešćem u izmjeni bilo kakvih informacija slabi i postupno nestaje. Pasivnost u informacijskom smislu čak dovodi do toga da pojedini članovi posade na brodu prestaju tražiti informacije i od svojih kolega. Krajnji rezultat takvog procesa je potiskivanje osobnog znanja u domeni nekorištenja i atrofija mogućih potencijala.

From the psychological point of view the meaning of the notion of Complacency represents a process of gradual change of attitudes that transforms a “good” seaman into a “bad” seaman. In this connection, the change of attitudes is caused by the influence of the hierarchical authority and subordinating influence of the Company (Management). In that sense, the change into inhibition begins as a spontaneous reaction to bad communication or unpleasant environment (hierarchical relations) within which the individual(s) can feel insignificant. Such a reaction is visible after a longer period (several years) from the way such a person/persons adapt to the circumstances. The way of adaptation can be seen through the gradual change of personal attitudes that finally results in an unconscious refusal of the existing knowledge and skills.

Therefore, Complacency applied to the tasks and procedures performed by seamen on board refers to the modified mental state in which the seaman’s behaviour derives from unconsciously formed attitudes as the result of adaptation in the conditions of bad communication and unpleasant environment.

This phenomenon is explained by Wiener (Fahlgren 2000:74) as follows:

“Complacency can strike any person in any occupation, where a person feels his skill, knowledge and his experience are called into question by superiors. And the result will most likely be changed attitudes caused by gradually hampered creativity.”

2.1. Management Complacency

Management Complacency occurs in the conditions of bad communication between the ship’s crew and the Management (Shipping Company). This communication between the Shipping Company and the crew emphasizes the dominating role of the Management and, as for information exchange, this form of communication corresponds to a bad relationship between the parents and the child. In such relationships the crew feels criticized, controlled, insignificant, not given a hearing by the Management, with a constant feeling of possible repression and shows signs of intimidation.

Consequently, active knowledge, creativity and motivation are gradually suppressed. The crew has, potentially, still knowledge, creativity and motivation but they are not stimulated to

U takvom stanju *zakočenosti* pojedinci nesvjesno, u skladu s novoformiranim stavovima, prestaju koristiti potencijalna znanja i iskustvene resurse. Pasiviziranje znanja, kreativnosti i motivacije zapravo je aktiviranje pojma *podložnosti upravi*.

U poznatim pomorskim nezgodama primjeri nesmanjivanja brzine broda radi održanja vremena dolaska koji su bili u neskladu s vremenskim i prometnim okolnostima, te u nekim slučajevima i tehničkim stanjem (*Titanic, Estonia, Herald of Free Enterprise, Norwegian Dream*) proizašli su iz udovoljavanja kompaniji, odnosno utjecaja kompanije na zapovjednika i časnike – *podložnost vodstvu*.

2.2. Podložnost autoritetu zapovjednika

U kontekstu *nekritičnosti* stila vodstva pojam se odnosi na lošu komunikaciju zapovjednik – posada. U tom smislu zapovjednik svojim ponašanjem, formiranim tijekom vremena kao stav, može nesvjesno stvoriti atmosferu u kojoj se posada osjeća napeto i nelagodno. Pri tome način komunikacije intonacijom, govorom tijela i neposrednom porukom može stvoriti negativnu atmosferu. Osim toga, odnos prema posadi može biti dominantan, bez tolerancije i represivan. U takvom odnosu posada je često kritizirana, osjeća se nevažno i *ustraseno*. U takvoj atmosferi posada prestaje podržavati zapovjednika osnovom svog znanja i iskustva, pa čak to isto znanje i iskustvo potiskuje u odnosu na pojedine okolnosti izazvane krivim odlukama ili propustom zapovjednika. Tako uspostavljeni odnosi mogu ići toliko daleko da, primjerice, član posade sa zadovoljstvom prati pogrešnu akciju zapovjednika ne poduzimajući pri tome ništa.

U takvim i sličnim okolnostima pozitivna povratna veza između zapovjednikovih postupaka i reakcija posade nepovratno je izgubljena. Prema tome, svojim ponašanjem zapovjednik nesvjesno izaziva negativnu reakciju upravo u trenucima kada je sigurnost broda najkritičnija, a to su odluke i postupci zapovjednika u slučaju hitnosti, koji mogu biti pogrešni i istodobno zapoženi i prešućeni od članova posade. To su okolnosti nekritičnog udovoljavanja vodstvu – *podložnosti vodstvu* – pri čemu stil i način upravljanja nesvjesno otvara mogućnosti za stvaranje negativnih – pasivnih stavova ostalih članova posade. Pri tome je *nekritičnost* stila vo-

use them (inhibition). Eventually, due to disregarding personal opinions of crewmembers about safety or other essential elements regarding managing and maintaining the ship, transformation occurs in which individuals become persons who no longer provide feedback information and whose interest for active participation in the exchange of any kind of information weakens and finally disappears. Moreover, passiveness in the sense of information exchange leads to the situation that certain members of the crew on board a ship stop asking for information from their colleagues as well. The final result of such a process is the suppression of one's own knowledge into the domain of non-usage and atrophy of possible potentials.

In such a state of inhibition individuals unconsciously, in compliance with newly formed attitudes, stop using potential knowledge and experiential resources. Passivization of knowledge, creativity and motivation is in fact the activation of the notion of Management Complacency.

This view is supported by the examples of not reducing the ship's speed in order to maintain the ETA which were incompatible with weather and traffic conditions and in certain cases with technical conditions (e.g. *Titanic, Estonia, Herald of Free Enterprise, Norwegian Dream*), but which came out of the urge to please the Company, i.e. out of the influence of the Management on the Master and the Officers.

2.2. Leadership Complacency

In the context of uncritical management style, the notion refers to bad communication between the Master and the crew. In that sense, the Master, with his behaviour, formed eventually into attitude, can unconsciously create an atmosphere in which the crew feel tense and uncomfortable. In this connection, the way of communication by intonation, body language and direct message can all together create a negative atmosphere. Besides, the attitude towards the crew can be dominant, intolerant and repressive. In such a relationship the crew feels criticized and unimportant, and intimidated. In such a climate the crew no longer supports the Master by their knowledge and experience; what is more, their knowledge and experience are suppressed in circumstances arisen from the Master's wrong decisions or omissions. Relations built in this manner can extend so far that a crewmember, for instance, follows the

đenja kreirana nesvjesno od strane autoriteta, a nastale komunikacijske okolnosti kontraproduktivne su upravo u odnosu na dotični autoritet kao odgovoran za stanje i sigurnost broda.

U analizi pomorskih nezgoda u velikom broju slučajeva posada se rukovodila isključivo odlukama zapovjednika, pa i onda kada su okolnosti očigledno ukazivale na opasnost i potrebu poduzimanja akcije ili mjera suprotnih od onih koje je poduzeo zapovjednik. Tankeri *Amoco Cadiz* i *Erica* jasni su primjeri učinka *nekritičnosti* stila vodstva. Dokaz tome jest i dezorganiziranost u slučaju zakazivanja zapovjednika na zapovjednoj i organizacijskoj razini (*Oceanos*), kada je posada u nedostatku informacija i direktnih zapovijedi obezglavljeno napuštala brod prepuštajući putnike njihovoj sudbini. Dakle, navika pokoravanja i udovoljavanja odlukama i zapovijedima u nedostatku istih stvorila je konfuzne reakcije koje su na kraju dovele do jedinog preostalog uporišta, a to je instinktivna potreba za osobnim spašavanjem. Takvi slučajevi potvrđuju slabost vertikalnog ujedinjavanja kao organizacijskog modela koji najviše pogoduje stvaranju ovisnosti o autoritetu – podložnosti vodstvu – i dovodi do katastrofalnih posljedica u slučajevima krivih odluka i zakazivanja autoriteta.

2.3. Podložnost osobnom osjećaju važnosti

Pozicioniranje i napredovanje u časničkom zvanju do prvog časnika i kasnije do zapovjednika ili upravitelja stroja, uz odgovornost položaja donosi i određeni značaj i ugled pri kompaniji unutar koje je pojedinac ostvario svoj status. Razvoj pojedinca u tom pravcu prate određene navike i stavovi, koji često reflektiraju kadrovsku i razvojnu politiku kompanije čije uvjete i zahtjeve pomorac treba ispuniti da bi napredovao.

Ovisno o kadrovskoj politici pretendenti za određene časničke i upravne pozicije, a pogotovo za zapovjednika i upravitelja, trebaju se u očima kompanije dokazivati višegodišnjim besprijekornim ispunjavanjem zahtjeva kako kompanije tako i pomorske profesije. Međutim, ponekad očekivanja pojedinaca u tom pravcu nisu ispunjena ili pak nisu ispunjena onako kako oni to očekuju.

Primjerice, prvi časnik koji ima uvjete za poziciju zapovjednika broda ni nakon višegodišnje besprijekorne karijere nije promaknut, dok nje-

Master's mistaken action with pleasure without undertaking anything at all.

In such and similar circumstances the positive feedback relation between the Master's actions and the reactions of the crew is irreversibly lost. Therefore, the Master, with his behaviour, unconsciously provokes a negative reaction exactly in the moments when the safety of the ship is most critical, and these are decisions and actions taken by the Master in case of emergency. They can be wrong but even if noticed by the crewmembers they can nevertheless remain tacit about them. Those are the circumstances of an uncritical urge to please the leader – Leadership Complacency – in which case the style and way of the management unconsciously open the possibilities for creating negative – passive attitudes of the other members of the crew. In this connection, the uncritical management style is created unconsciously by the authority and the resulting communication circumstances are counter-productive exactly in the relation to the authority responsible for the condition and safety of the ship.

This can be traced in the analysis of maritime accidents in the majority of which the respective crew acted exclusively according to the Master's decisions even on the occasions which pointed to the danger and the urge of taking action or measures contrary to those taken by the Master. The tankers *Torrey Canyon*, *Amoco Cadiz* and *Erica* are clear examples of the effect of uncritical management style. Another proof of what has been discussed above is disorganisation in case of the Master's failure at the commanding and organisational levels (e.g. *Oceanos*) when the panic-stricken crew started abandoning the ship due to the lack of information and direct commands leaving the passengers to their destiny. Thus, the habit of submissiveness and compliance with the decisions and commands in a case in which they lacked gave rise to confused reactions leading finally to the only remaining strong point, i.e. the instinctive need for one's own survival. Such cases confirm the weakness of the vertical unification as an organisational model that most of all facilitates becoming dependent on authority – Leadership Complacency, and brings to disastrous consequences in cases of wrong decisions and authority failure.

2.3. Self-Induced Complacency

The position-taking and promotion in the officer's profession to the Chief Officer and later

gove kolege s istim uvjetima već obnašaju tu dužnost. U tom smislu možemo očekivati dvije reakcije. Zreo i realan prvi časnik davat će i dalje sve od sebe te svoje znanje i iskustvo primjenjivati i dalje na najbolji i profesionalan način. Manje zreo i nerealan prvi časnik počeo će se ponašati suprotno svom znanju, vještinama i neće maksimalizirati svoje napore s obzirom na sigurnost plovidbe. Takva reakcija je svojevrsan protest zbog neuvježavanje njegovih sposobnosti, znanja i iskustva. Usvajajući tako opasan vid ponašanja on nesvjesno zadovoljava svoju sujetu i na pogrešan način kompenzira neostvarenu ambiciju. Takav način ponašanja kvalificira se kao – *samozadovoljstvo*. Pri tome on osobno neće primijetiti neki drukčiji vid ponašanja od prethodnog, ali netko sa strane objektivno može prosuditi promjenu kroz reduciranu disciplinu, nedostatak motivacije i koncentracije ili čak nemarnost i aljkavost.

Slično se može dogoditi sa zapovjednikom koji se odlaskom na drugu kompaniju ili iz nekih drugih razloga vraća na dužnost prvog časnika. Osjećaj degradacije koji pri tome može nastupiti kod nekih pojedinaca, djelovat će također na njihovo ponašanje, koje neće biti one razine koja odgovara potencijalnom znanju i iskustvu. Frustracija pozicijom može utjecati na smanjenu motivaciju za suradnjom i ispoljavanjem znanja i zloradim osjećajem da osoba većeg ranga u određenim trenucima pogrešno odlučuje ili djeluje. Pasivnost u odnosu na moguće korektivno djelovanje u takvim situacijama također je podsvjesno zadovoljavanje sujete i nezrelo ponašanje koje se kvalificira kao *podložnost osobnom osjećaju važnosti*.

S aspekta poslovanja brodaru podložnost se reflektira kroz pet bitnih područja kroz koja brodar može pretrpjeti gubitke i to:

1. Rizik nastanka pomorske nezgode zbog lošeg odnosa brod – kompanija;
2. Rizik nastanka nezgode na radu članova posade zbog nezadovoljstva posade broda;
3. Rizik oštećenja broda i tereta zbog loše organizacije rada;
4. Rizik onečišćenja okoliša zbog komercijalnih zahtjeva eksploatacije broda koji su pretpostavljeni tehničkom stanju broda i sigurnosti;
5. Povećanje premije osiguranja zbog realizacije spomenutih rizika.

to the Master or Chief Engineer, brings along with the responsibilities a certain significance and respect within the Company with which the individual has realised his status. The development of an individual in that sense is followed by certain habits and attitudes that often reflect personnel and development policy of the Company whose conditions and requirements must be satisfied by seamen in order to be promoted.

Depending on the personnel policy, those who aspire to certain officer or managerial posts, especially those of the Master or Chief Engineer, must prove themselves in the eyes of the Company by long years of faultless satisfying the requirements not only of the Company but also of the maritime profession. However, sometimes the expectations that individuals have in that sense are not fulfilled in the way they wish them to be.

For example, a Chief Officer who satisfies all the requirements to become the ship's Master is not promoted even after many years of irreplaceable career while his colleagues with the same qualifications have already been filling such a post for some time. In that sense, there are two possible ways of reaction. A mature and realistic Chief Officer will carry on doing his best and applying his knowledge and skills and will not maximize his efforts as regards the safety of navigation. Such a reaction is a form of protest against the non-appreciation of his skills, knowledge and experience. Adopting such a dangerous form of behaviour he unconsciously satisfies his vanity and compensates his unrealised ambition in a wrong way. Such a form of behaviour is qualified as self-satisfaction. In this sense, the individual himself will not notice a kind of behaviour different from the previously mentioned one, but a neutral observer can objectively assess the change through reduced discipline, lack of motivation and concentration or even carelessness and sloppiness.

Similar things can happen with the Master who regresses to the duty of the Chief Officer due to changing the company of employment or for any other reason. The feeling of degradation that in such circumstances can appear with certain individuals will also affect their behaviour that will not remain at the level that corresponds to the potential knowledge and experience. Frustration due to the position can bring about a reduced motivation for cooperation and expressing knowledge as well as malicious

Rizik nastanka pomorske nezgode zbog lošeg odnosa brod – kompanija nastaje pretežno kod funkcionalno organiziranih brodarskih kompanija. U njima svaki rukovoditelj pojedine organizacijske jedinice, a koje su međusobno linijski povezane, izravno održava vezu s brodom i nastoji ostvariti prioritet u odnosu na druge. Pri tome se nastoji vršiti utjecaj na zapovjednika ili upravitelja s ciljem ostvarenja interesa pojedinih organizacijskih jedinica, a da iste nisu međusobno ustanovile prioritete i koordinaciju. Primjerice odnos komercijalne, kadrovske i tehničke organizacijske jedinice u kojem svaka nastoji postići prioritet i opravdati svoju svrhu i aktivnosti. Slijedom toga uprava broda, zapovjednik i upravitelj, gube motivaciju i prepuštaju se onim odlukama kompanije koje su u datom momentu dominantne, a to su u pravilu one koje kompaniji osiguravaju profit. U takvom organizacijskom okružju nastaju uvjeti za razvoj podložnosti upravi. Primjer nezgode proizašle iz takvih organizacijskih okolnosti u kojima je prioritet dan komercijalnom iskorištavanju broda, a ne tehničkoj sigurnosti jest slučaj Ro-Ro putničkog broda Herald of Free Enterprise 1987. god. Analizom nezgode utvrđen je potpuni gubitak motivacije posade i prepuštanje odlukama kompanije. Začetak takvih odnosa s katastrofalnim posljedicama bilježi se još od vremena putničkog broda Titanic. Zapovjednik velikog iskustva podlegao je profitnim interesima kompanije koja je htjela ostvariti nagradu Plave vrpce za najbrži brod i sugerirala zapovjedniku nesigurnu plovidbu u visokim geografskim širinama usprkos realnim i poznatim opasnostima od udara u ledenjak.

Rizik nastanka nezgode na radu zbog nezadovoljstva posade proizlazi iz loših internih ili autonomnih odnosa na brodu zbog prisutnosti hijerarhijskog autoriteta, uvjetovanog funkcionalnim ustrojem brodarske organizacije. U takvim okolnostima zapovjednik je *longa manus* uprave kompanije i traži bespogovorno izvršavanje poslova i dužnosti od strane časnika i posade pa i onda kada planirani poslovi nadilaze sigurnosne radne okvire – podložnost vodstvu. To se odnosi u prvom redu na produljenje radnog vremena znatno iznad dopuštenog i zane-marivanje sigurnosnih mijera. Uslijed toga uz umor i zamor rađa se osjećaj nezadovoljstva i revolta, posada se dezintegrira u grupe nezadovoljnika i gubi se normalna radna atmosfera. Rezultat toga je nepovoljna organizacijska klima koja uzrokuje nepažnju i površan pristup

feeling that a superior reaches wrong decisions or acts incorrectly in certain cases. Passiveness in regard to a possible corrective action in such situations is also a form of unconscious satisfying one's vanity, and immature behaviour that is qualified as Self-Induced Complacency.

From the aspect of Company's business operations, Complacency is reflected in the following five essential areas through which it can suffer losses:

1. Risk of maritime accident due to bad relationship Ship – Company
2. Risk of on-the-job accident involving crewmembers, due to the crew's discontent
3. Risk of damage of the ship and her cargo due to bad work organisation
4. Risk of environment pollution due to the commercial requirements of the ship exploitation that are presupposed to the technical conditions of the ship and safety
5. Higher insurance policy due to the realisation of the risks mentioned above.

The risk of maritime accident due to bad relationship Ship – Company occurs mostly with functionally organised shipping companies. In these companies the head of each organisational unit that are linearly interconnected is in direct contact with the ship and tends to take precedence over the others. In this connection, there is a tendency to influence the Master or Chief Engineer in order to serve the interests of different organisational units that have not mutually established an order of priority and coordination, e.g. the relation among commercial, staffing and technical organisational units in which each unit tends to take priority and justify its purpose and activities. Consequently, the managing team on board, the Master and Chief Engineer, lose motivation and indulge to the Company decisions that are dominant in a certain situation, and these are usually the decisions ensuring profit to the Company. In such an organisational environment conditions for the occurrence of Management Complacency arise. An example of accident that resulted from such organisational conditions in which priority was given to the commercial exploitation of the ship instead of to her technical safety is the case of Herald of Free Enterprise in 1987. The result of the accident analysis found a total loss of motivation of the crew and surrendering to the decisions of the Company. The root of such relations with disastrous conse-

radu, a time i veliku mogućnost raznih oblika nezgoda na radu. Primjerice, rutinske vježbe napuštanja broda bilježe najveći broj nezgoda prilikom spuštanja čamaca zbog neizvježbanosti, te prethodnog umora i zamora posade kroz svakodnevne aktivnosti.

Rizik oštećenja broda i tereta zbog loše organizacije rada rezultira iz prethodno naglašenih organizacijskih komponenti funkcionalnog ustroja. Međutim, tome treba dodati i posebnu mogućnost afirmiranja neiskusnog kadra na upravljačkim funkcijama i zaobilaznje postojećeg iskusnog kadra koji očekuje promociju na više i odgovornije dužnosti. U tom duhu rađa se spomenuta podložnost osobnom osjećaju važnosti. U tom smislu iskusni kadar na brodu, a i u kompaniji gubi interes za unapređivanje poslovanja kako s gledišta broderske organizacije na kopnu, tako i s gledišta organizacije rada na brodu. Pogreške pretpostavljenih u tom smislu hladno se promatraju i na njih se ne upozorava direktno s ciljem sprječavanja posljedica, nego se nastoje naglasiti nakon nastanka oštećenja broda i/ili tereta, odnosno nezgode. Time se postiže dvostruka šteta pri kompaniji zbog neostvarenja strateških ciljeva razvoja i poslovanja, a na brodu nastaje izravna šteta zbog lošeg operativnog djelovanja posade uzrokovanog organizacijskim propustima. Primjena timskog rada na brodu u takvim organizacijskim uvjetima ne može zaživjeti zbog loših organizacijskih navika, dominacije i subordinacije pretpostavljenih i nerazvijene inicijative časnika i ostale posade broda.

Rizik onečišćenja okoliša zbog komercijalnih zahtjeva eksploatacije broda koji su pretpostavljeni tehničkom stanju broda i sigurnosti proizlazi iz česte nemoći zapovjednika da ostvari koordiniranu komunikaciju s organizacijskim jedinicama kadrovskog, komercijalnog i tehničkog sektora. Radi bolje komunikacije između zapovjednika i pojedinih organizacijskih jedinica formiran je koordinator ili menadžer flote. Međutim, formacijsko mjesto koordinatora nije imalo nekih većih ovlasti tako da su i dalje ostale aktualne izravne veze zapovjednika i direktora pojedinih organizacijskih jedinica. U tom smislu događalo se da komercijalni sektor osigura posao za brod koji sigurnosno i tehnički ne udovoljava namjeravanoj eksploataciji. Tehnički sektor u tome trenutku s obzirom na svoju linijsku povezanost s komercijalnim sektorom, ne može se usprotiviti, odnosno zaustaviti na-

quences appears in the times of the passenger ship Titanic. The Master, with long years of experience, succumbed to the profit interests of the Company that was trying to win the Blue Ribbon prize for the fastest ship and suggested to the Master unsafe navigation in high latitudes in spite of the existing and well-known risks of hitting an iceberg.

The risk of on-the-job accident involving crewmembers, due to the crew's discontent is the result of bad internal or autonomous relations on board a ship due to the presence of hierarchical authority conditioned by the functional structure of the ship organisation. In such circumstances the Master is "longa manus" of the Company Management and requires unquestioning carrying out of tasks and duties by the officers and crew, even in cases when the tasks planned go beyond the safe work frames – Leadership Complacency. This refers in the first place to lengthening working hours significantly beyond the permitted and neglecting safety measures. Consequently, besides tiredness and fatigue there appears the feeling of discontent and revolt, the crew is disintegrated into groups of discontented while ordinary workplace atmosphere is lost. The result is an unfavourable organisational climate causing inattention and superficial approach to tasks, and consequently, high possibility of different forms of on-the-job accidents. For example, in routine abandon ship exercises the largest number of accidents occur when lowering the life-boats and are caused by the lack of practice as well as tiredness and fatigue of crewmembers due to everyday activities.

The risk of damage of the ship and her cargo due to bad work organisation results from the above emphasized organisational components. However, another possibility, i.e. affirmation of inexperienced staff on managerial functions and bypassing of the existing experienced staff expecting to be promoted to higher-rank and more responsible duties. That is how Self-Induced Complacency arises. Thus, the experienced staff on board as well as in the Company loses interest for better job performances not only from the aspect of the Shipping Company ashore but also from that of the work organisation on board. Mistakes made by the superiors are considered indifferently and the individuals are not warned of them directly in order to prevent the consequences but there is a tendency to emphasize them only after the occurrence of

mjeravano zaposlenje broda. Zapovjednik koji se tome može suprotstaviti s aspekta ISM pravilnika, međutim, zbog svog podređenog položaja u odnosu na kompaniju koja je funkcionalno organizirana, najčešće će uz rizik prihvatiti poslovni prijedlog komercijalnog sektora jer u protivnom se neće smatrati lojalnim ili čak sposobnim zapovjednikom u floti kompanije. Prema tome, kod ovakvih slučajeva, imamo kombinaciju izražene podložnosti upravi u odnosu zapovjednik – kompanija i podložnosti vodstvu u odnosu zapovjednik – posada, a koja se u praksi često potvrđuje. Jedan od zabilježenih primjera jest i nezgoda tankera Erika 12. prosinca 1999. godine čiji je zapovjednik prihvatio ukrcaj 30.844 t nafte iako je znao i morao znati da trup ne udovoljava zahtjevima sigurnosti. Naime, na pregledu u studenom 1999 godine, dakle mjesec dana ranije, ustanovljeno je loše stanje tankova zbog korozije što je trebalo ukloniti do siječnja 2000. godine. Dakle, u kratkom roku trebalo je sanirati trup i tankove, a uprava je brod u međuvremenu, da ne bi bilo praznog hoda, uputila na još jedno – zadnje putovanje. Zapovjednik koji se tome mogao suprotstaviti s obzirom na stanje broda, a temeljem ISM pravilnika, nije to učinio. Odnosno, nastojao je zaštititi interese kompanije više nego spriječiti onečišćenje okoliša, budući da je negativno utjecao na časnike koji su ga upozorili na puknuće broda dok je još bilo vremena umanjiti posljedice nezgode. U tom smislu otkriva se prisutnost podložnosti vodstvu učinka budući su se svi časnici povinivali volji zapovjednika, iako su znali da su njegove odluke protivne sigurnosti i zaštiti okoliša. U tom smislu imamo jasan primjer jakog utjecaja podložnosti upravi u kombinaciji s podložnošću vodstvu koji je u ovom slučaju rezultirao zagađenjem Biskajskog zaljeva s 26.000 t nafte koliko je isteklo s tankera.

Povećanje premije osiguranja zbog realizacije spomenutih rizika jesu posljedica loših organizacijskih mjera i realizacije sindroma podložnosti. Jednom ustanovljeni organizacijski propusti, loša komunikacija i operativna neučinkovitost stavljaju dotičnu brodarsku kompaniju u fokus nepovjerenja osiguravatelja, što znači i znatno veće premije osiguranja s obzirom na ustanovljene rizike poslovanja. Tome posebice treba dodati nepovjerenje komitenata broдача i dioničara koji dodatno mogu umanjiti poslovne mogućnosti kompanije.

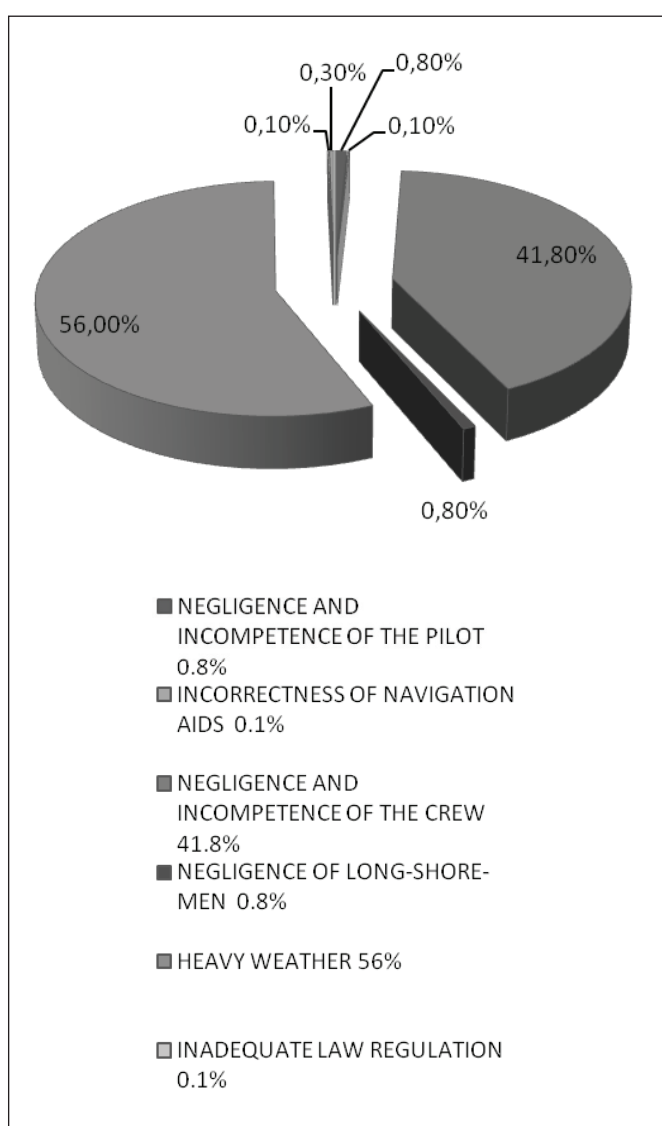
the damage of the ship and/or her cargo, i.e. only after the accident has already happened. Thus, a double damage occurs with the Company due to non-realisation of strategic aims of development and business while a direct damage occurs on board due to bad operative functioning of the crew caused by organisational omissions. The application of team work on board in such organisational conditions cannot come to life because of bad organisational habits of domination and subordination of the superiors as well as due to the undeveloped initiative of the officers and the rest of the crew.

The risk of environment pollution due to the commercial requirements of the ship exploitation that are presupposed to the technical conditions of the ship and safety results from the commonly found inability of the Master to realise a coordinated communication with the organisational units of the staffing, commercial and technical sections. For a better communication between the Master and each organisational unit there is a coordinator or fleet manager. However, the post of the coordinator did not have any major authority so that the direct relations between the Master and the heads of each organisational unit respectively remained. In this connection, there were cases in which the commercial section ensured the job for the ship that could not satisfy the intended exploitation demands from the technical and safety aspects. In that instant the technical section, due to its linear connection with the commercial section, cannot oppose or stop the intended ship business. The Master who can oppose it from the aspect of the ISM Code, however, due to his subordinate position in relation to the functionally organised Company, will most often risk to accept the business proposal of the commercial section as otherwise he will not be considered loyal or even competent for the Company fleet. Thus, in cases like these there is a combination of marked Management Complacency in the relation Master – Company and leadership Complacency in the relation Master – Crew, and it can be said that in practice it is most commonly found. One of the examples noted in the accident of the tanker Erica that happened on December 12, 1999. The ship's Master accepted the load of 30,844 tons of oil although he knew and had to know that the hull could not meet the safety requirements. Namely, on the inspection in November 1999, i.e. a month before the accident happened, the tanks were found to be in

3. ISTRAŽIVANJE POJMA PODLOŽNOST

Istraživanje podložnosti vrlo je složeno i ovisi o nizu okolnosti. Autori su pokušali pronaći i dokazati okolnosti u kojima podložnosti ima važnu ulogu u nastanku pomorskih nezgoda. Kao područje istraživanja uzeti su podaci pomorskih nezgoda hrvatskih brodova. Analizirani su podaci od 1993. do 2001. godine.

Prvi rezultati, pokazani na slici 1., pokazuju da nakon vremenskih uvjeta (56%), drugi važan uzrok predstavljaju nemar i neprofesionalnost, podijeljeni prema:



Slika 1. Temeljni razlozi pomorskih nezgoda hrvatskih brodova

Figure 1 Main reasons for maritime accidents for Croatian vessels

Izvor / Source: Čišić, D., Z. Mrak, *Maritime accidents database – computer programme, 1993.*

bad condition due to corrosion and this had to be corrected within January 2000. So, in a short period the hull and tanks had to be repaired, but the Management set the ship on another, i.e. her last voyage in order to avoid off-work period. The Master who could have opposed it on the basis of the ISM Code and with regard to the ship's condition, did not do it. He was trying to protect the interests of the Company rather than prevent the environment pollution since he tried to exert a negative influence on the officers who warned him of the hull breakage while there was still enough time to restrict the consequences of the accident. In that sense, Leadership Complacency effect is revealed since all the officers succumbed to the Master's will although they knew that his decisions would work against safety and environment protection. Thus, this is a clear example of the strong influence of Management Complacency combined with Leadership Complacency that in this case resulted in the pollution of the Bay of Biscay due to 26,000 tons of oil that flowed out of the tanker.

The higher insurance policy due to the realisation of the risks mentioned above are consequences of bad organisational measures and realisation of the Complacency Syndrome. Once established organisational omissions, bad communication and operative inefficiency put the Shipping Company in the focus of disbelief by the insurance that also means significantly higher insurance policies due to the established risks of the business. This is especially followed by disbelief from the business partners and shareholders who can additionally reduce the business possibilities of the company.

3. RESEARCH OF COMPLACENCY

The reserch of complacency is very difficult and mainly circumstantial. The authors have tried to find some circumstantial evidence that complacency has a big role in maritime accidents. As a research tool Database for maritime accidents for Croatian vessels has been used. The data analysed are from 1993 to 2001.

The first results, shown in Figure 1, show that after the weather conditions (56%), the second main reason of accidents is negligence and incompetence, divided into:

- * Teški vremenski uvjeti – 56%
- * Nemar i neprofesionalnost posade – 41,8%
- * Nemar osoblja luke kod priveza broda – 0,8%
- * Nemar i neprofesionalnost peljara – 0,8%
- * Neprimjereno održavanje luka i plovnih putova – 0,3%
- * Neprimjerena zakonska regulativa – 0,1%

Drugi najutjecajniji navedeni uzroci pomorskih nezgoda (nemar i neprofesionalnost) proizlaze iz jednog od spomenutih pojavnih oblika pojma podložnosti, odnosno podilaženja autoritetu kompanije, zapovjednika ili naglašavanja osobnog značaja. Analiza mjesta nastanka nezgode također je znakovita – slika 2.

Podaci ukazuju na sljedeću statističku raspodjelu:

- * Na sidrištu – 6,2%
- * Na vezu u hrvatskim lukama – 22,55%
- * Na vezu u stranim lukama – 0,25%
- * Za vrijeme ribolova – 1,42%
- * Tijekom manevriranja u hrvatskim lukama – 16,51%
- * Tijekom manevriranja u stranim lukama – 0,67%
- * Ostalo – 1,84%
- * Tijekom plovidbe u hrvatskim unutrašnjim teritorijalnim vodama – 49,29%

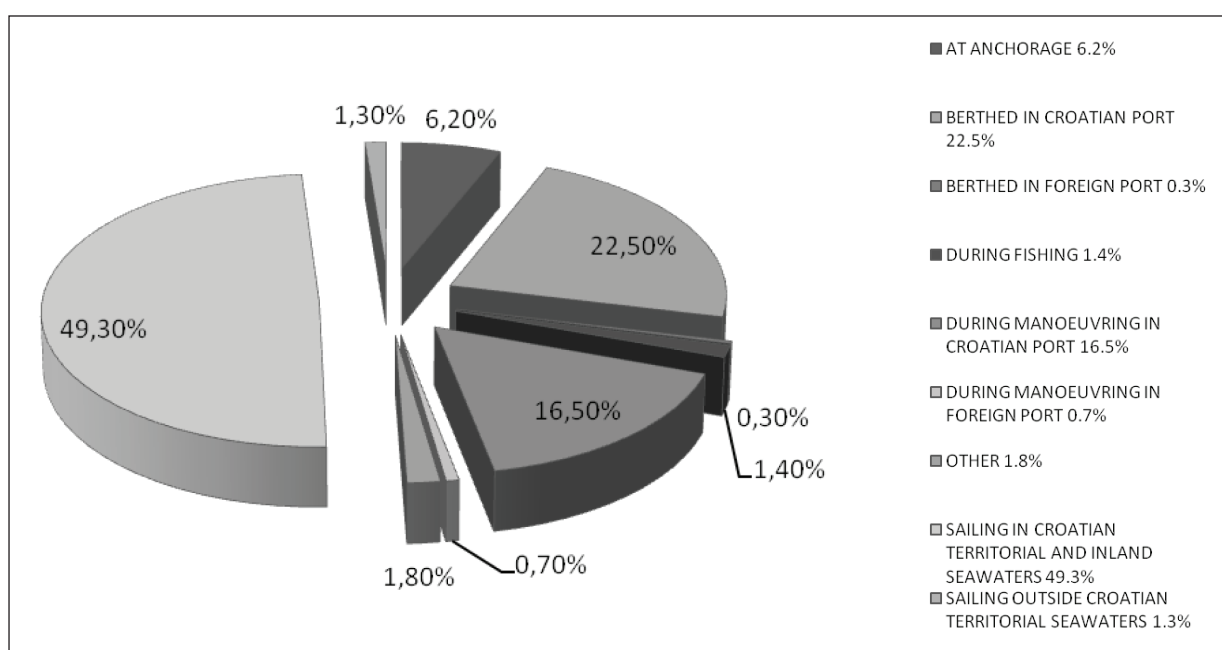
- * Negligence and incompetence of the crew (41.8%)
- * Negligence of long-shore men (0.8%)
- * Negligence and incompetence of pilots (0.8%)

All these reasons of maritime accidents could in a way be treated as possible complacency.

The analysis of the place where maritime accidents induced by negligence and incompetence have occurred is also significant. The data show the following statistical distribution:

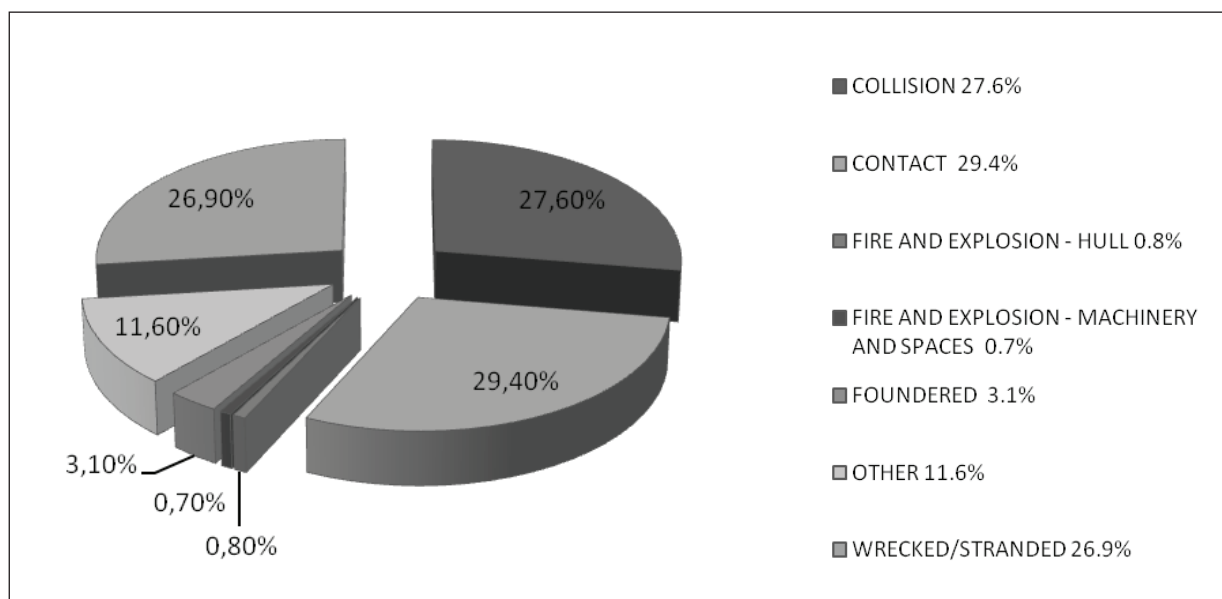
- * At anchorage (6.20%)
- * Berthed in a Croatian port (22.55%)
- * Berthed in a foreign port (0.25%)
- * During fishing (1.42%)
- * During manoeuvring in a Croatian port (16.51%)
- * During manoeuvring in a foreign port (0.67%)
- * Other (1.84%)
- * Sailing in Croatian territorial and inland seawaters (49.29%)
- * Sailing outside Croatian territorial seawaters (1.26%)

One should remember that heavy weather conditions have been drawn out from this anal-



Slika 2. Područja pomorskih nezgoda uzrokovanih nemarom i neprofesionalnošću
 Figure 2 Sites of maritime accidents due to negligence and incompetence

Izvor / Source: Čišić, D., Z. Mrak, Maritime accidents database – computer program, 1993.)



Slika 3. Vrste pomorskih nezgoda uzrokovanih nemarom i neprofesionalnošću
Figure 3 Maritime accident types induced by negligence and incompetence

Izvor / Source: Čišić, D., Z. Mrak, Maritime accidents database – computer programme, 1993.

* Tijekom plovidbe izvan hrvatskih teritorijalnih voda – 1,26%.

Analizirajući prethodne uvjete i uzroke nezgoda vidljivo je da su nezgode u lukama i tijekom manevriranja uključene sa 39,9 % s dodatnih 6,2% nezgoda nastalih na sidrištu. Analizirajući nezgode po vrsti, a uzrokovane nemarom i neprofesionalnošću dolazimo do sljedeće raspodjele – slika 3:

- * Sudar – 27,6%
- * Udar – 29,4%
- * Požar i eksplozija – trup i nadgrađe – 0,8%
- * Požar i eksplozija – strojarnica i unutrašnji prostori – 0,7%
- * Potonuća – 3,1%
- * Nasukanja – 26,9%
- * Ostalo – 11,6%.

Uzimajući u obzir sveukupne podatke po vrstama i uvjetima nastalih nezgoda razvidno je da su nemar i neprofesionalnost uzrokovani pojednim oblicima podložnosti doveli i do sljedećih šteta:

- * Štete na teretu – 0.17%
- * Štete na opremi – 13.24%
- * Štete na trupu – 61.19%
- * Štete strojnog kompleksa – 15.84%
- * Ostalo – 7.04%
- * Potpuni gubitci – 2.51%.

ysis. Therefore accidents in ports and during manoeuvring in ports are as high as 39.90% with additional 6.20% of accidents that occurred at anchorage.

The accident type induced by negligence and incompetence shows the following dispensation (Figure 3):

- * Collision (27.6%)
- * Contact (29.4%)
- * Fire and explosion – hull (0.8%)
- * Fire and explosion – machinery and spaces (0.7%)
- * Foundering (3.1%)
- * Other (11.6%)
- * Wrecked/stranded (26.9%)

From the data displayed, it is clear that, as expected, ship damages in maritime accidents due to negligence and incompetence are as follows:

- * Cargo damage (0.17%)
- * Equipment damage (13.24%)
- * Hull damage (61.19%)
- * Machinery damage (15.84%)
- * Other (7.04%)
- * Total loss (2.51%)

Analysing these data the volume of complacency in maritime environment could be determined as a reason of maritime accidents of Croatian ships within the limits of 20.41% up to more than 43.4% of all accidents.

Analizirajući navedene podatke uočava se da prisutnost pojma podložnosti u pomorskim nezgodama hrvatskih brodova može biti osnovnim uzrokom 20,41% do 43,4% svih nezgoda.

4. ZAKLJUČAK

Vlasnici kompanije i dioničari predstavljaju stratejsku grupu pojedinaca koji imaju uloženi novac u kompaniju i stoga su zainteresirani za sve elemente učinkovitosti organizacije – postizavanje cilja, korištenje potencijala i unutrašnje procese. Stoga su stavovi vlasnika i dioničara također jedan od kriterija učinkovitosti kompanije, odnosno organizacijskog ustroja. Upravo informiranost vlasnika i dioničara o učinkovitosti organizacijskog ustroja s aspekta sindroma podložnosti bitna je komponenta u kvaliteti organizacijskih promjena, a s ciljem učinkovitog poslovanja brodarka. Osnovom predloženih organizacijskih promjena u duhu matrične organizacijske strukture, može se u velikoj mjeri umanjiti utjecaj *complacency* sindroma, a uvođenjem timskog rada na brodu u uvjetima matrično organiziranih kompanija i potpuno eliminirati njegov utjecaj. Time se unosi jedan novi kvalitet u radu i poslovanju brodarka budući se u velikoj mjeri reducira utjecaj ljudske pogreške koja se u mnogim aspektima temelji na sindromu podložnosti. Pristup poslovanju kroz reorganizaciju, a koja ima za cilj smanjenje ljudske pogreške kroz eliminaciju sindroma podložnosti daje veće mogućnosti dioničarskim prosuditeljima (*stakholder audits*) u procjeni interesa svih strana zainteresiranih za rad kompanije i u pomirenju eventualnih suprotnih stavova. Na kraju, prikazano je osnovom podataka pomorskih nezgoda hrvatskih brodova, da u realnim uvjetima pomorske prakse pojam podložnosti može biti naznačen kao uzrok do 43,4% pomorskih nezgoda.

4. CONCLUSION

Company owners and shareholders represent a strategic group of individuals who have their money invested in the Company and are therefore interested in all the elements of organisation efficiency – achieving goals, using potentials and internal processes. Consequently, the attitudes of the owners and shareholders also represent an efficiency criterion for the Company, i.e. its organisational structure. Precisely, the owners and shareholders being well-informed about the efficiency of the organisational structure from the aspect of the Complacency Syndrome is an essential component of the quality of the organisational changes and all this aims at efficient running of the Company's business. On the basis of the proposed organisation changes according to matrix organisation structure, the influence of Complacency Syndrome can be significantly reduced and eventually it can be completely eliminated by the introduction of team work on board a ship in conditions of matrix organisation structure in the companies. This introduces a new quality of work and business done by the shipping companies since the influence of human error based in many aspects on Complacency Syndrome is largely reduced. The approach to business through reorganisation aiming at reducing human error by way of Complacency Syndrome elimination offers greater possibilities to stakeholder audits in the assessment of interests of all the parties interested in the Company's business and reconciliation of possible opponent attitudes.

At the end, by using Maritime accidents database for Croatian vessels, it is noticeable that in a real environment complacency can be considered to have caused up to 43.4% of all maritime accidents.

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