

# Economic crisis in the Norwegian offshore industry: How may it affect safety conditions in offshore operations?

K. Skarholt, G. Lamvik & S. Antonsen,

*SINTEF Technology and society*

J. Røyrvik,

*NTNU Social Research*

J.R. Jonassen,

*Stord Haugesund University College, Uni Research Polytec*

**Abstract:** The purpose of this paper is to discuss the safety consequences regarding the ongoing crisis in the Norwegian offshore industry. We will discuss the opinions among different actors in this industry; shipping companies, unions, authority and broker about how they experience this situation and what they do to deal with it. We discuss changes in trust relations and alliances that have developed during and before the crisis, and how a tougher climate and business may affect safety conditions offshore. The discussion in the paper is based on qualitative data from an ongoing research project, conducted in 2016. We conclude that tripartite collaboration and trust between the parties is crucial to maintain, especially in a crisis. An unpredictable market situation with fewer assignments, downsizing, and tougher contractual agreements with short-term contracts may have negative impact on safety conditions offshore in the future.

## 1 INTRODUCTION

### 1.1 *The new situation in the petroleum industry*

The Norwegian oil and gas industry is in economic crisis. The oil price has dropped and likewise the revenues of the stakeholders in this sector. The oil price drop is partly due to the shale oil production in the USA and partly to the sustained large production in Russia and Saudi Arabia. This recession is further strengthened by a general decline worldwide in demand in a wide range of sectors.

According to this year's Maritime Outlook Report, by the Norwegian Shipowners' Association (NSA): "The estimated decline in offshore service shipping companies' income for 2015 was 10 percent. This is the first time in 13 years that this segment has experienced falling turnover. As of February 2016, 101 offshore vessels belonging to members of the Norwegian Shipowners' Association were in layup" (Maritime Outlook 2016: 44). So, when it comes to the number of employees the same negative trend is clear: "3150 jobs were cut in 2015 in the offshore service segment, while shipowners expect further 1000-1500 jobs to disappear in 2016" (Maritime Outlook 2016: 50). There is also a lack of optimism among the offshore stakeholders. According to the NSA report "85 percent of offshore service shipowners believe that profitability will be weaker" (Maritime Outlook 2016: 48) in 2016.

The problem we address in this paper is how the new economic reality can influence the conditions for

safety in the Norwegian offshore industry, where we discuss the situation in the offshore shipping industry as an example of the crisis. We have not set out to establish a causal or even correlational relationship between the economic downturn and the safety statistics of the industry but rather, we present a snapshot of how key stakeholders in the industry perceive the conditions for safety under the current market conditions. Our hopes are that this description can, in turn, provide a basis for finding measures to prevent the link between market conditions and accidents from being established.

### 1.2 *Changes in trust and alliances*

The Norwegian offshore industry has been known for its high degree of trust, with strong tripartite collaboration over many years (Skarholt et al., 2010; Øyum et al., 2010). We will discuss whether and how the dramatic changes in this industry will challenge the collaboration between companies, unions and authorities. We focus on the importance of tripartite collaboration, trust and competency needs and how it affects safety conditions. Now, we see a tendency towards a division between the parties because of major cost reductions, such as postponed operations, downsizing and cut in safety training courses. Reason (1997) argues that the safety culture is based on an underlying element of trust, and research shows that high levels of trust in relationships contributes to high levels of safety in high risk enterprises (Wildman, 2012). Trustful relations are a never-ending

concern and organizations need to constantly encourage processes developing trust. (Giddens, 1994).

Whether or not the changes will lead to more (or less) accidents is an empirical question that will become evident – but as of now we can see that the economic situation and the imagined future (Bottos, 2008) of the industry has caused fundamental changes in alliances, and the relations between core stakeholders. Conflicts due to a battle for scarce resources will not only change relationships and alliances, but also allow for underlying structures to be visible (Gluckman, 1965). Fundamental changes within Norwegian capitalism, driven by neoliberalist principles, had not been visible prior to these conflicts of interest and have made structural changes become apparent. In hindsight, those might be coined as going from the Nordic model (tripartite collaboration), through welfare capitalism (individuals rewarded and resources abundant), and now real capitalism of competition between companies and rationalization inside these<sup>1</sup>.

## 2 THEORETICAL BACKGROUND

### 2.1 *Safety culture - trust and safety*

These changes in market circumstances represent changes in the most fundamental framework condition for safety, i.e. the economic leverage of the stakeholders in the value chain. As previously indicated, the Norwegian petroleum sector, including the shipping companies, has been characterized with a high level of collaboration across the value chain, and between the regulators and the regulated. While this relationship is not altogether notable, the economic downturn has undoubtedly led to a more short-term, transactional relationship between the oil companies and their suppliers, including the shipping companies. While all stakeholders state that cost-cutting is not going to come at the expense of safety, there are signs that a increasingly distant principal-agent relationship creates changes in the level of and forms of trust that exist between the stakeholders in the industry.

Importantly, this trust has been described as an important building block of the high level of safety in the Norwegian petroleum sector. An important arena/forum for tripartite collaboration in this industry is "Working Together for Safety" (Samarbeid for Sikkerhet/SfS). SfS was established in 2001 and the aim was to improve the safety on board vessels and installations in the offshore petroleum industry. It has been characterized by trustful relations and openness between the stakeholders involved. One could say

that this trust-based tripartite collaboration is a key cultural value related to how safety is maintained generally in Norwegian working life.

Trust has been studied in different ways to address a wide range of organizational questions, focusing on the effects of trust and distrust (Wildman, 2012; Verkerk 2004; Kramer and Tyler, 1996; Lewicki and Bunker, 1995; Gambetta, 1988). The dominant approach emphasizes the positive outcomes trust has on important organizational phenomena; such as improved communication, knowledge sharing, commitment, identification and organizational learning (McEvily et al., 2003; Nonaka and Takeuchi, 1995), and also a positive impact on safety culture and safety performance (Burns et al., 2006; Conchie et al., 2006; Reason, 1997).

Trust is held as an important characteristic of social relations and systems. Luhmann (1979), Mayer et al. (1995) and Rousseau et al. (1998) argue that the concept of trust is related to positive expectations to each other: "Trust and distrust attitudes develops from another's perceived trustworthiness", and are "based on positive expectations about another's intentions or behaviors". Related to safety, trust is: "an individual's willingness to rely on another person based on expectations that he or she act safely or intend to act safely" (Conchie et al., 2006).

Trust has been described as a "missing piece in the safety puzzle" (Conchie et al., 2006), which means that the nature and role of trust in shaping organizational safety is poorly understood, at least empirically. Articles focusing on the trust-safety puzzle examine the relationship between trust and safety behavior in high-risk work contexts, such as the oil and gas industry. According to Conchie et al. (2006) trust is an important factor that impacts safety behavior and culture. Their study of safety performance in the offshore industry concluded that the impact on trust and distrust on safety performance is determined by the act of being trusted (or distrusted). They found that distrustful attitudes are more predictive of accidents and near-miss incidents, than trustful attitudes – both at industry (management) level and installation (supervisor/co-worker) level.

### 2.2 *Alliances and conflict*

The situation today is not a result of new formal contracts or sudden changes in formal relations between the key stakeholders, but rather the resources are seen as inadequate, and consequently some stakeholders try to win at the expense of others. One result of this is that new lines of conflict and alliances are drawn both 1) between (former-allied) companies and 2) between the parties constituting the tripartite agreement of the Norwegian oil industry.

One key characteristic and cultural manifestation of conflicts, is a breach of expectations. Levine (1961: 6) describes this as the "Failure to perform

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<sup>1</sup> Thus it would be more accurate to talk about capitalist mode of production (Marx 1939)

acts which are valuable to other persons or groups and which they have come to expect as the result of past performance (and) the refusal to participate in cooperative endeavors at the intracommunity level”, which is exactly how our informants describe their experiences since the crisis. This new behavior of the oil companies is perceived as a breach of earlier expectations, formalized and distanced, since the goal seems to be to be achieved at the expense of the other companies.

Tough competition and a fight to control available resources have characterized the oil industry. Globally this has been evident by different alliances and conflicts between states, companies, between the industry and nation states and so on. The Norwegian oil industry, or rather – the oil industry on the Norwegian shelf – has been characterized by its social agreements grounded in the Norwegian model, producing alliances between all core stakeholders, thereby a “we” including the whole of the industry. The crisis seems to have changed these relations, by altering the level of conflict, actualizing segments of opposition (Evans Pritchard, 1940) competing in a zero sum game (Neumann & Morgenstern, 1944, Barth, 1965) inside the Norwegian shelf producing new kinds of “us and them” (Sahlins, 1961).

Improved safety is something that all parties want for the industry, which is precisely why safety is, not only a valid, but also a core argument in order to legitimize any position held by conflicting parties. On one hand, these new relations will affect safety because these alliances have different explanations about how a safe environment is created, and on the other hand they will collaborate differently to achieve safety.

### 3 METHODS

We conducted focus group interviews for the collection of empirical data for our analysis. Relating to our topic, the advantage of focus group interviews is the potential of interviewing several respondents during the same timeframe, covering different perspectives of the research questions (Krueger & Casey, 2009). This also reduces the amount of text to be transcribed and qualitatively analyzed. The whole operation may be done in a shorter timeframe. Challenges performing focus group interviews may be dominance by some of the interviewees. Interviewing individuals at the same hierarchical level contributes to open information sharing and communication during the interview. Our observation of the participants and their level of engagement and interaction during the interviews, leads us to the conclusion that opening up in trust was not a problem.

Based on our research question, we wanted to interview the managerial levels in offshore shipping companies, due to their having a direct impact on the

conditions and framework of the operations offshore. We interviewed 16 managers in March 2016 during four focus group meetings in four major Norwegian offshore shipping companies, where one was a sub-sea operator. The positions participating were, as follows, chartering commercial manager, crew/HR-manager/VP, technical manager/director, operation/fleet manager/director and HSE-Q manager. To supplement this we interviewed an executive in the Norwegian Maritime Directorate as well as a shipping broker for a different perspective of the market conditions. To complete our data collection, two telephone interviews were conducted with representatives from trade unions, one from onshore and offshore energy sector, and one from the seafarers union. The interviews are all conducted with the crisis as a vivid context. The situation affect the interviewees in their daily struggle to manage the crisis.

### 4 RESULTS

In the interviews, we asked how the different stakeholders in the petroleum industry experienced the new situation; whether the market change was perceived as a crisis, how the situation may affect safety operations offshore, and what the stakeholders actually did to meet and handle the situation.

#### 4.1 *Perceptions about the crisis*

The oil companies are hunting for cost reductions using strategies, which seem to be game changing. The power is clearly in the hands of the oil companies, who are the job-offering stakeholders. The offshore service companies compete heavily for fewer jobs in the market. Financial risks are weighed down in the supply chain, creating a fragmented situation where it is “dog-eats-dog”, as characterized by one of the shipping companies.

All four shipping companies we interviewed describe the new situation in the petroleum industry as a crisis. One of these companies had reduced their staffing with 400 employees, and feared further layoffs. We find that more of the shipping companies are now facing a crisis and have to cut costs. Cut in oil prices have removed 105 oilrigs (April 2016) from a market of 316 active rigs. Consequently, shipping companies have removed a considerable portion of the offshore fleet from the market. Resulting in downsizing of personnel for oil companies, shipping companies and subcontractors.

We find that the crisis has led to poorer conditions for the shipping companies. They don't generate profit on the offshore operations anymore, since oil companies are pushing down prices and adding conditions to the contracts. This means that contract requirements are tougher and the prices are so low they don't cover wages to the operational crew. Contract

negotiations between shipping companies and the oil company have thus changed and have become tougher. For example, there is no room for proviso in the contract as it was before. The oil companies remove any bid tender containing proviso clauses. Similarly, all risks are moved to the subcontractors, while earlier some of the risk was taken by the oil company, damage to the ship during operations, for example. Now, the subcontractors, shipping companies or sub-sea contractors, have to insure possible damages to a larger extent than earlier. The crisis in this industry is also thoroughly covered by media, for example in Offshore.no in February 2016, statement from a major oil lawyer; "We can see an obvious change (in contract clauses) in direction of greater risks being transferred to the suppliers. We experience that companies accept claims they do not see the consequences of". The CEO of the Norwegian Shipowners' Association expressed in Offshore.no in June 2016: "Major oil companies must stop pushing the supply chain from accepting contracts that obviously are not sustainable in the long run. Capacity and competence in our offshore industry is now entering a critical limit".

Currently, there are few long-term contracts in the shipping industry, compared to before the crisis. Today, most of the contracts are in the spot market, meaning short-term assignments with a maximum of one month, especially operations done by PSV's (Platform Supply Vessels) and anchor handling vessels. Shipping companies interviewed, accepted contracts they knew to be too low – not even covering basic running costs – solely to decelerate the decline of the company. When the market is weak and undergoing a crisis as today there are many subcontractors that are weakened and not in a position to negotiate.

We find that the crisis and poorer conditions among contractors affect the trust between the parties negatively. Trustful relations based on earlier collaboration between oil companies, shipping companies and subcontractors are being challenged. The shipping companies are experiencing increasing demands from the oil companies: "The oil companies have decided that vetting has to be done every year prior to bidding through an oil company. If we are on the spot market without contractor, we have to bypass to arrange an inspection at our own cost. I think this is a cynical demand from the oil companies".

A competent crew is crucial for performing safe operations offshore. Now, expertise is drained from the companies due to massive layoffs of personnel, especially sailing personnel. One of the shipping companies has increased the average age of sailing personnel by 5 years within the course of 18 months due to the age preference rule, saying goodbye to an entire generation at sea. "On one hand this is securing senior expertise but on the other, it will diminish flexibility and ability to innovate", one of the execu-

tives said. One positive factor is the selection process of the officer position: The time to reach first officer positions is now increased resulting in broader and better knowledge at officer levels than at market peak, 2-3 years ago, when officers were less available and younger.

We find that documentation and control of technical systems and personnel qualifications has been increased lately at the initiative of the oil companies. Oil companies control crew lists, they receive from the shipping companies, where they check information about the experience and competency of key personnel at each shift on a ship. They compare the key personnel; officers and deck bosuns across shifts on the same ship, and request CV's of the personnel on board – from captain to personnel on deck. The oil companies want to know how long experience the captain leading a ship has from offshore operations, and how long he has operated this particular ship. The oil companies prefer not to use shipping companies with negative HSE statistics. A fatality on a ship could result in the ship being blacklisted in the market for a long time (in the anchor handling segment).

Onboard one of the vessels, a new build put to service last year, had 28 different revisions during two months. Another vessel had six OVID (Offshore Vessel Inspection Database) inspections from 2-3 vetting companies within one week. Some vessels have uncoordinated 30-40 vetting inspections a year. As one informant told us; "It is a jungle out there. This many audits can jeopardize safety. We actually have ships to operate. A downscaling of these inspections will only come out positively for the whole business".

However, some of the requirements from the oil companies regarding health documentation exceeding STCW requirements (The International Convention on Standards of Training, Certification and Watchkeeping for Seafarers) are reduced, HSE meetings and revisions of shore offices postponed for later. The oil companies reduce their staff costs by kicking out external consultants as an early measure. In one of the interviews the participants described the process: "This is now happening because of increased cost focus. With rising oil prices there were no limits of what they were going to develop, they needed people and hired consultants".

#### 4.2 *How the crisis may affect safety offshore*

In the interviews, we asked how and if the crisis has affected offshore safety; focusing on changes in contract terms for the shipping companies and safety onboard among the crews.

All of the interviewees answered that they think safety will not be affected by the crisis, at least not yet. One shipping company stated that they are experiencing a crisis, but it is not a desperate situation yet and so far no signs of desperate solutions that may

lead to unsafe operations. The shipping companies experience that the oil companies have the same focus on performing safe operations as they had before the crisis: "We can see that even if they reduce some of the requirements it does not affect HSE, the standard is there, the offshore companies are delivering." This is shown by the quality assurance of the crew lists for example. Another example is that major oil companies require good HSE statistics from the shipping companies, and HSE results are one of the main criteria for achieving the assignment. Also, the shipping companies argue they are concerned about keeping the same standard on their fleet/ships by sufficient maintenance and having crews with necessary expertise and experience. High expertise and experience requirements for the crew means more efficient operations – the crew works more efficiently and saves time performing the operations. This may also be an incentive for the oil companies.

However, during the interviews some worries about safety conditions offshore came up. One of the concerns was about the excessive need for control from the oil company, where the rig needs to document the time used on anchor handling operations, for example, they compare the time used between different ships. One of the shipping companies thinks that this may increase the risks on board because it creates a stressed work situation. Reduction of training and courses was another area of concern. This may cause deskilling among the crew and may be a safety risk because of lack of expertise over time. Cuts in training may also affect the possibilities of carrier development and promotion to new positions among the crew. Another safety challenge may be less continuity at shifts/crews on board with other shift arrangements – this affects the crew composition. In the future there is expected to be different nationalities on board, until now there has been predominantly Norwegian and Scandinavian crews, especially among marine crews. Different nationalities, safety cultures and languages can become a safety hazard due to a lack of shared understanding of situations onboard. The shipping companies are also concerned that they now lose experienced seafarers because of the decline in operations/jobs offshore. Seafarers from the shipping industry are now going to other industries, and it may be difficult to recruit crews with the necessary expertise when the crisis is over.

#### 4.3 *How to deal with the crisis*

Today, the oil companies postpone and reduce planned offshore activities, which lead to less work for shipping companies and subcontractors. Some shipping companies and suppliers thus actually have problems with loan repayments and fear bankruptcy. First of all, the actors in this market are cutting costs to survive, in addition to massive downsizing to deal

with the crisis. One of the shipping companies has for example reduced the wages by 29 percent among the crew from laid off vessels, so they can keep more of their employees and secure their competence. This was a collective agreement between employer and employees. Cut in company specific bonuses is another instrument to reduce costs.

This shows that the crisis seems to strengthen the collaboration between management and unions/employees and engage the parties in a collective process to find solutions for survival. Another example of this is changing the shift system offshore. Some shipping companies have changed from four to five shifts - to be able to keep more of their employees working. This change in the shift system means five weeks between crew change and an extra shift, or crew, onboard the ships, allowing extra leisure time at home. Also, 1:2 rotation has been implemented where three people share the same position, normally two. This means more time at home, but unpaid, but sharing positions, at least keeps the expertise within the company. When the vessel is back in business, the intention is that the rotation will return to normal. "This is established because of the unions, not in spite of them", one of the informants said. Labor relations can be an active positive force in a crisis like this and could be negatively affecting both productivity and safety if cooperation and trust between the parties is not established or lost.

In addition to downsizing and cutting costs, the oil companies handle the crises with tougher agreement conditions towards the shipping companies. Shipping companies experience the change in framework conditions as demanding. Now, the contractual process is more formalized between the oil company and the shipping company, compared to before the crises where the contact was more relational and suppliers had a regular contact person in the oil company. Formal contractual relationships also represent more micromanagement from the oil companies compared to earlier.

In the interviews, we asked if collaboration or mergers between the stakeholders in this market could be a solution to meet the crises, but only one of the shipping companies saw that as a realistic strategy. However, several ship owners have publicly announced in media that mergers may be a more realistic solution to the current crisis.

To sum up, the shipping companies experience that the difficult situation in the offshore industry leads to a more cynical industry where each company struggles to survive. This situation threatens trust relations between the oil companies and the shipping companies. Still, the local collaboration between the parties at work are not weakened. For example, there has been a close collaboration between the unions and management in the shipping companies, where they have negotiated solutions to collectively meet the crises, as described above.

## 5 DISCUSSION

The tripartite system is a social contract, or rather a compromise, between the workers as represented by the unions, the employers and the state. As (Andersen et. Al: 86) writes, the fundamental idea was that:

*the workers got jobs, social security, rights at work, influence in the workplace and a share in the profits; while the employers achieved industrial peace, the right to manage, access to a competent workforce, predictability and cooperation on promoting productivity and competitiveness. The state, finally, with the aim of promoting growth, stability and employment has benefited from the partners' efforts to ensure wage development reconcilable with macroeconomic stability.*

At the core of the tripartite agreement lies the idea of the collective and the collective bargaining system. Societal traits as a result of this is a high union density, legally binding collective agreements, and the role given to institutions as mediators that prevent conflicts and promotes coordinated negotiated outcomes.

Several of these characteristics are under pressure due to changes in the international environment and in Nordic societies, and fundamental structural changes have been imminent years before the crisis, in line with great global trends sometimes coined as neoliberal, individualization, etc. Burawoy (1979) concretize this by showing how both state and market are gradually incorporated inside the corporation, leading to competition between the workers, no collective bargaining and individual arrangements instead of societal contracts. These changes happened before the crisis, during years of wealth, hiding the need for collective bargaining between workers and employers by allowing control and power to shift from the unions with few or no objections.

Gluckman (1965) argues that during conflicts, underlying structures are actualized and thus observable. Implying that the conflict, as perceived by our informants, should be understood as a social process of structuring and being structured beginning before the conflict articulation (see also Werbner, 1984) and actualized by the new economic situation. Today's crisis thus allows us to observe the underlying structures developed and the kinds of alliances produced. Interestingly, the structures described by our informants, are not only between the worker/employer, but between oil company/workers union and oil company/other companies as well. That indicates that the state of the tripartite collaboration was not in such a state that trust and common goals could be upheld, neither internally in the oil companies nor between companies, when the crisis struck the Norwegian shelf.

In addition to a breach of expectations, Levine argues that avoidance and separation is a key manifes-

tation of structural conflicts (1961: 6). The tendency of large companies in the oil sector to rely more on formal contracts and contacts, and the so-called professionalization of handling internal and external relations has taken place parallel to already discussed changes in the tripartite collaboration. For our informants though, they experienced that the crisis meant that oil companies suddenly withdrew all kinds of informal contact and communications – turning the focus towards how the formal contracts could be interpreted in their favor.

One concrete example is how our informants explains that they now need to be more self-contained with lawyers and other contracts specialists to be prepared with daily operations. There has always existed a clause in offshore contracts stating that if the frame conditions radically change, a revision of the contract could take place. But this has never been relevant or necessary to implement, since a high oil price has lubricated the relationships and created a slack to financially accept variations in the performance of the contracted operations. The contractual relationship between oil companies and subcontractors has often been a longstanding one and as such has developed into more of a partnership. Now the relevance of a written contract is highly important. We can illustrate the climate in the offshore business at the moment with the following anecdote: Some stakeholders told us that if they just ask minor question related to the specification of a contract, they could expect to be expelled from the bidding process. Also, changes in the contracts from the oil companies' perspective are more common nowadays. Signed contracts can be changed or additional services included, seemingly without any risk for the issuer of the contract. The contractors seem to accept the changes, to avoid an expensive trial and becoming unpopular in the market, i.e. by the operating company.

Also contracts on a lump sum basis, rather than daily rates, are more common now than earlier, i.e. the company is paid a fix sum and assume the risk for unforeseen factors such as delays due to weather conditions or technical breakdowns. So-called back-to-back-principles in contracts also seems more common. The subcontractor is not paid unless the main contractor receives pay settlement from the client. More financial risk in this arrangement is forced on to the subcontractors, since the latter, according to this type of contract, need to start the job without knowing for certain whether they receive payment or not. The clients experience much more paper work and administration in contractual agreements and say they have never worked so much, for so little.

Based on the situation described above, we find that trustful relations between oil companies, shipping companies and subcontractors are threatened. Before, trustful relations were built through tripartite collaboration between authorities, companies, unions

and strong alliances. One could say that this trust-based tripartite collaboration has been a key cultural value related to how safety is maintained in Norwegian working life. Trust is fragile, and is easily broken down, as we see in the crisis situation in the oil and gas industry today. During the economic crisis the stakeholders have begun to act differently and more formal towards each other to obtain profitable business. Trust is diminishing – affected by cost cutting, tougher contractual agreements and tougher competition. Trust is about finding the other trustworthy. Trust opens for good communication and sharing of information and knowledge (McEvily et al., 2003; Nonaka and Takeuchi, 1995). Distrust will lead to the opposite situation.

We argue that trust between the parties is important to perform safe offshore operations. Reliability in high-risk organizations, such as in the oil and gas industry is found to be higher when people trust each other (Weick, 1987), and they feel confident that others are acting in a safe way. Trustful relations build this confidence by generating a belief that others share similar safety values and understand the importance of safe behavior. In complex and dangerous work operations, trustful relations and safety culture will influence the safety conditions on board and between the stakeholders that run the operations (clients and contractors). According to Conchie and Donald (2006), distrust attitudes are more predictive of accidents and near-miss events than trust attitudes. Their study emphasizes the importance and impact of trustful relations regarding safety performance in the offshore industry. In client – contractor relations, positive trust relations between the customer company and its suppliers *might* be built, depending on demonstration of safe behavior (Conchie and Donald, 2008). They found that low trust between client and contractors are present in the initial phases of a relationship. How trust is developed is dependent on how the relationship evolves and how the stakeholders view and measure each other during operations. In the Norwegian offshore industry, trust has been build and established over many years through tripartite collaboration. What may be the safety consequences if distrust and lack of collaboration characterize the relations in the future?

The changes we have seen involving substantial reductions in staff with the offshore companies may be a double-edged sword. Expertise may be easier to recruit, but also be lost during the downsizing process. This may have a negative impact on safety conditions. So, one may ask; where is the limit? None of the informants experience that HSE has lost its focus neither in communications from the oil companies or within their own company. How can this be achieved? The oil companies still require a high standard of HSE secured by control on board based on reported incident statistics and requirements in contracts. Technically, they prioritize the integrity of

the offshore installations to prevent breakage and damage, but scale down the efficiency of the well production as long as the oil price is down.

In the interviews, the shipping companies argue that they and the oil companies both keep safety as first priority, but what happens if the authorities reduce their requirements due to a sustaining crisis? One of the cornerstones of a high level of safety offshore at the Norwegian continental shelf is openness (Jonassen, 2015). When the situation is changing from partnership to “dog-eat-dog”, something fundamental may change in the relationship. It may have a negative safety consequence on board, but we don't know yet. The operations require a tight coupling of the different organizational units (Zaccaro, Marks & DeChurch, 2012) into one performing unit (Johannesen et al., 2015). The sharing of knowledge and experience between the stakeholders in such a system is crucial for the standard of the performance.

The situation may also affect the level of reporting. If a crew or member of a crew violates a rule, produce an incident, or near incident, will it be reported if the consequence is a loss of image for the company or even will jeopardize the company contract?

In short term contracts, individual competences may be focused on rather than the competences of the whole crew. Then, people may start to preserve their assets and skills. The result may be a reduction of knowledge sharing, creativity and finally the ability of the organization to adapt to new and changing conditions and to innovate may fade away. This negative spiral may not result from a change to short company contracts as such, but where this is practiced by individual crew contracts as well. This may change collective team behavior into individual behavior and expectations towards each other may change. If people suddenly are shifting behavior from the collective to the individual good, this may remove the buffer of incident involvement (Taraldsen et al., 2010).

## 6 CONCLUSIONS

In this article we have discussed if and how the crisis may influence the safety conditions offshore on the Norwegian shelf. This is an empirical question that will be answered in the time to come, but it is certain that the safety work will be performed under very different conditions in terms of conflictual relationships, absence of formal communication, mistrust and shifts of power in the tripartite collaboration. We have explored how key stakeholders in this industry perceive the conditions for safety under the current market crisis. We find that earlier trustful relations between the parties have been threatened by a more competitive situation with formal and transactional relations. Before, the collaboration and communication was characterized by its personal relationships,

where one knew each other quite well between companies as client and customer. Thus, the contractual agreements and the offshore operations were built on trust. We find that the collaboration between employers and employees/unions have been strengthened within the shipping companies – to collectively handle the crisis. Focus on individual competence rather than crew competence and collaboration, may lead to less openness and poorer problem-solving on board. Those we have interviewed argue that safety still has first priority when planning and performing offshore operations. However, we will stress the importance of tripartite collaboration where the parties have worked together for many years - to improve the safety on board vessels and installations in this industry. Less openness, tougher competition and tougher contractual agreements may lead to poorer safety conditions in the future.

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