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## Industry-Specific Scale: A review on Job Satisfaction of Offshore Employees

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### Abstract

The research of job satisfaction has become significant to any business and is a common issue in the area of unusual work environments such as the military, offshore, maritime, polar exploration, nuclear power plants and space programs. Although research in offshore has received much attention, studies on job satisfaction within the context is still limited. Moreover, none of these studies provided structural evidence of a job satisfaction instrument that specifically measures job satisfaction among offshore employees. In fact, these studies used existing instruments to measure employees' job satisfaction in the offshore context. The absence of a suitable scale to assess employees' attitudes on job satisfaction might not capture the employees' real feelings about their satisfaction with the job. Therefore, there is a need for an industry-specific scale measuring offshore employee's job satisfaction.

**Keywords:** Industry-Specific, Instrument, Job Satisfaction, Offshore, Scale.

### Introduction

#### Research Background

In today's competitive era, the primary source in gaining competitive advantage and organizational performance is determined by how employees are treated (Todorović, Čabarkapa, Tošić-Radev & Miladinović, 2017; Kandasamy & Ancheri, 2009; Lawler 2005). No organization would be able to achieve its organizational goals or financial aim without its employees (Johari, Yahya & Ahmad, 2012). Tews, Michel and Bartlett (2012) mentioned that hiring competent employees is an elementary phase to ensure a productive workforce and effective organizational performance.

Previous literature demonstrated that reduced job satisfaction was significantly related to employee turnover (Scanlan & Still, 2013; Shen & Zhu, 2012; Tett & Meyer, 1993; Carsten & Spector, 1987), poor organizational commitment (Kim, Leong & Lee, 2005; Meyer & Smith, 2001) and low job performance (Patterson, Warr & West, 2004; Judge, Thoresen, Bono & Patton, 2001). On the contrary, job satisfaction leads to higher employee commitment, reduced employee turnover and improved organizational performance. This implies that job satisfaction plays an important role in determining the success of an organization and

research on job satisfaction has gain extensive attention among scholars and practitioners in many work contexts.

Despite of studies in hypothetical organizations, research in unusual and challenging environment has become a central concern to a substantial number of psychology scholars (Sandal, Leon & Palinkas, 2006). However, very little is known regarding the actual behavior of people working in unusual environments (Zimmer et al., 2013; Suedfeld, 1998). Kanas (1997) asserted that the study of isolated and confined extreme (ICE) environments is of major interest to understand the concept of adaptation. Sandal et al. (2006) mentioned that these environments have a significant influence on behavioral functioning. The aforementioned environments share similar characteristics of working far from home, being exposed to dangerous conditions and social isolation, working in a narrow working space, facing high workload and experiencing communication constraints with the outside world (Tafforin, 2002; Lugg & Shepanek, 1999; Wood, Lugg, Hysong & Harm, 1999; Sutherland & Flin, 1989). Examples of unusual work environments such as the military (Chin-Siang, Talib, Juhari & Madon, 2014; Bokti & Talib, 2009), offshore (Majid, Othman, Mohamad & Lim, 2017; Harun, Salleh, Memon, Baharom & Abdullah, 2014; Dickey, Watson & Zangelidis, 2011; Ulleberg & Rundmo, 1997), maritime (Bergheim, Nielsen, Mearns & Eid 2015; Nielsen, Eid, Hystad, Sætrevik & Saus, 2013, Nielsen, Mearns, Matthiesen & Eid, 2011), polar exploration (Sarris, 2008), nuclear power plants (Gracia & Martínez-Córcoles, 2018) and space programs (Kanas et al., 2000). Despite of many potential areas of ICE work environments to be studied, this research particularly focused on offshore context.

The offshore working group presents a unique situation that needs to be explicitly addressed compared to the onshore working environment (Afzainizam, Embong, Yaacob, Sabina, Ashgaftaki & Elsayed, 2016; Ross, 2009). Hence, maintaining employees' satisfaction in the offshore context is challenging. It illustrates that the industry is described as 'high risk', where they face a challenging work environment. Moreover, Elliot (1985) described the offshore working environment as difficult, dangerous and socially isolated. Besides that, the offshore working environment exposes its workers to high rates of hazards, calamity and accidents (Bergheim et al., 2015).

The employees are transported and stay on the vessel for a minimum of 14 days. As a result of this opportunity, attention should be paid to the outcomes of working in this challenging working environment. Yuen, Loh, Zhou and Wong (2018) asserted that job satisfaction plays a vital role in retaining these employees. However, the main areas of studies on offshore employees have been primarily related to risk management issues, health, safety, and environment (HSE), and job stress (Harun et al., 2014; Rundmo, 1992). This notion holds true especially for offshore, where only slight attention has been devoted on job satisfaction. Therefore, there is a need for researchers to investigate their job satisfaction using industry-specific scale in order to capture their true evaluation working at offshore. The main purpose of the article is to review the issue in measurement tools and identify research gap in developing an offshore-specific scale measuring job satisfaction.

### **Research Problem**

The number of employees working in the offshore industry continues to drop, and younger employees feel less attracted to work in this industry as most of them prefer onshore jobs (Li,

Yin, Luo & Wang, 2014). The shortage and low retention rates had placed a burden on recruitment and increased the associated costs (Li et al., 2014). Furthermore, offshore jobs are considered as high risk industry; thus, onshore jobs are perceived to provide better job opportunities. The notion holds true as Dickey et al. (2011) purported that the willingness of people to accept offshore jobs is dependent on the nature and quantity of onshore jobs. It is said that, offshore job will be accepted as a substitute career when they are unable to fill the job at onshore.

Measuring employee's job satisfaction is complex as offshore jobs are different from onshore jobs. Various scales were developed in different work contexts, primarily concerning manufacturing workers. Fields (2002) reviewed 23 validated job satisfaction scales that have been employed in various industries; however, none of the scales were purposely developed for the offshore context. The existing scales (e.g., Job Descriptive Index, Job Satisfaction Survey and Job Diagnostic Survey) were mainly developed in management and professional sectors. There is a concern that the existing scales could be cultural and job-dependent. Applying them to other nationalities or companies other than those originally intended to be measured might pose weighty limitations. The absence of a suitable scale to assess employees' attitudes on job satisfaction might not capture the employees' real feelings about their satisfaction with the job. Hence, the literature has mirrored the need of an industry-specific scale measuring offshore employee's job satisfaction. This new scale can assist job satisfaction scholars and practitioners to understand the perception of the employees pertaining to their job satisfaction in general.

## **Literature Review**

### **Job Satisfaction Scales**

There are a variety of scales measuring job satisfaction in organizational research. Few studies (e.g., Mahdi, Zin, Nor, Sakat & Naim, 2012; Stanton, Sinar, Balzer, Julian, Thoreson, Aziz, Fisher & Smith, 2001) claimed that the Job Descriptive Index (JDI) developed by Smith, Kendall and Hulin (1969) is the most researched scale of job satisfaction. Other researchers (e.g., Giri & Kumar, 2010; Yelboga, 2009; Liu, Borg & Spector 2004) contended that the Job Satisfaction Survey (JSS) developed by Spector (1985) is the most extensively employed scale for measuring job satisfaction. Nevertheless, following several retests, it was found that the existing scales could not be generalized to every work setting as anticipated without proper adjustments to its attributes (Heritage, Pollock & Roberts, 2015; Chin-Siang et al., 2014; Astrauskaite, Vaitkevičius & Perminas 2011).

In the sense, many researchers have developed more industry-specific scales of job satisfaction. For example, Özpehlivan and Acar (2015) developed a job satisfaction scale for textile employees; Pollnac, Seara and Colburn (2015) and Pollnac and Poggie (1988) for commercial fishermen; Astrauskaite et al. (2011) for secondary school teachers; Lee, Magnini and Kim (2011) for South Korean hotel frontline employees; Sowmya and Panchanatham (2011) for Indian banking employees; Judge, Boudreau and Bretz (1994) for male executives; Rothausen (1994) for retail employees; Shouksmith (1989) for New Zealand veterinarians; and Mueller and McCloskey (1990) for nurses.

It is anticipated that little empirical effort has been conducted to develop an offshore-based scale. Moreover, little is known pertaining to the contextual settings in terms of the

associations and dimensions that contribute to the employee's job satisfaction. A bespoke scale could provide substantial evidence to organizations to signify the existence of job satisfaction and dissatisfaction as well as the specific attributes of job satisfaction that are most lacking.

### Previous Studies on Job Satisfaction

There have been a considerable number of studies on job satisfaction using questionnaires (Sutherland & Cooper, 1989; Sutherland & Flin, 1989; Rundmo, 1996; Ulleberg & Rundmo, 1997; Wickramasinghe, 2009; Wickramasinghe & Jayaweera, 2010; Dickey et al., 2011; Nielsen et al., 2011; Nielsen et al., 2013; Harun et al., 2014; Li et al., 2014; Olaniyan & Hystad, 2016; Yuen et al., 2018). However, none of these studies provided structural evidence of a job satisfaction scale that specifically measures job satisfaction among offshore employees. Moreover, these studies used existing scales to measure employees' job satisfaction in the offshore context. The following table presents the job satisfaction scales that were used in previous offshore studies and the findings of the particular studies.

**Table 1: Job satisfaction scale used in previous offshore studies**

Author	Source of scale	Area of research	Findings
Sutherland & Flin (1989)	Warr, Cook & Wall (1979)	UK Continental Shelf (UKCS)	This study examined some of the psychological and social aspects of offshore working life. The study findings demonstrated that individuals reporting higher levels of stress on offshore stress showed lower levels of job satisfaction and mental wellbeing. The results also revealed that rate of pay had the lowest score, while fellow workers obtained the highest score among the contractors.
Sutherland & Cooper (1989)	Warr et al. (1979)	European waters	The study established that no significant differences that reported stress levels or stress manifestations (i.e., job satisfaction, mental health, alcohol or tobacco usage) were observed between introverts and extraverts.
Rundmo (1996)	Adopted from Rundmo & Saari (1988)	Norwegian part of the North Sea	The study found a greater percentage of employees were satisfied with safety and contingency measures, and experienced job stress.
Ulleberg & Rundmo (1997)	Warr et al. (1979)	Norwegian part of the North Sea	The results showed that the respondents felt least satisfied with the dimension on employee relations, and especially with regards to promotion prospects. In general, the results suggested that the respondents felt satisfied with their jobs.
Wickramasinghe (2009)	Adapted from previous studies in management information	Sri Lanka's offshore outsourcing sector	The results indicated that gender and tenure were significant in job satisfaction measurement. Females were less satisfied with their jobs and felt a loss of interest in jobs but wish to remain in their present workplace. Those with a longer tenure in their present workplace were less satisfied with

			their jobs, felt a loss of interest in their jobs and intended to leave their present workplace.
Wickrama singhe & Jayaweera (2010)	Rusbult & Farrell (1983)	Sri Lanka's offshore outsourcing sector	The study was to examine the mediating effect of job satisfaction on the relationship between time demands of work and turnover intention. It was found that job satisfaction partially mediated the relationship between time demands of work and turnover intention.
Dickey et al. (2011)	Adapted from previous job satisfaction, psychology and occupational health research	UK North Sea	The study investigated the determinants of job satisfaction and intentions to quit. They found that for those in good financial situations, skills were closely related to their job and those who received training reported higher levels of job satisfaction. Moreover, the study established the importance of job satisfaction in determining workers' intentions to quit their job.
Nielsen et al. (2011)	Overall Job Satisfaction (Brayfield & Rothe, 1951)	Norwegian offshore	The study hypothesized that high levels of risk perception were related to low job satisfaction and that a positive perception of safety climate was related to high job satisfaction. It was found that workers who perceived high levels of risk reported lower levels of job satisfaction
Nielsen et al. (2013)	Overall Job Satisfaction (Brayfield & Rothe, 1951)	Norwegian offshore	The study was to report psychometric properties of safety climate inventory. Moderate to strong positive correlations were established between safety climate dimensions and job satisfaction. Moreover, employees who perceived the safety climate as strong reported more job satisfaction than those who perceived the safety climate as less positive.
Harun et al. (2014)	Job Satisfaction Survey (Spector, 1997)	Coast of East Malaysia	The findings showed a moderate level of stress and job satisfaction, while organizational commitment was found to be quite high among the sample. Job satisfaction was found to have significant positive association with organizational commitment and stress was found to be negatively correlated to organizational commitment and job satisfaction.
Li et al. (2014)	Adapted from previous studies	Chinese offshore	The study was to investigate the main factors that contributed to job satisfaction of Chinese seafarers. It was found that promotion was the most significant factor in job satisfaction, followed by salary and benefits, working environment and feeling of status.
Olaniyan & Hystad (2016)	Overall Job Satisfaction	North Sea and	Findings showed that employees who perceived their leader as being authentic reported more job

	(Brayfield & Rothe, 1951)	Southeast Asia	satisfaction and less job insecurity and intentions to quit the organization.
Yuen et al. (2018)	Wanous, Reichers & Hudy (1997)	Singaporean shipping management companies	The objective of the study was to analyze the core determinants of job satisfaction and performance of seafarers. The results show that job satisfaction was considerably correlated with job performance of seafarers.

The table reports previous studies conducted in the offshore context using existing instruments rather than developing it for specific purposes. In fact, to date, little effort has been made to produce an industry-specific scale within the offshore work environment, indicating that previous researchers modified existing scales to suit the context of the study. Closely related to the research issue is the work of Dickey et al. (2011) that measured the job satisfaction of offshore workers in the oil and gas industry. The work largely followed Ulleberg and Rundmo's (1997) study. However, the scale used by Ulleberg and Rundmo (1997) to measure their samples was adapted from Warr et al. (1979). Looking at the work of Warr et al. (1979), the scale was initially developed for manufacturing workers within the mainland of United Kingdom. This leaves questions on the accuracy of the items measuring the samples from different industries. Underestimating the effects of job, cultural, social and location characteristics may offer inaccurate responses. It is contended that the selection of job satisfaction factors among manufacturing workers will not equally contain a similar selection of factors among offshore workers. More importantly, research on job satisfaction conducted in the offshore context are growing; hence, it is probably important to claim that a specific-industry scale is needed to measure the phenomenon to provide better, accurate and meaningful information.

### Conclusion and Recommendation

In light of the above discussion, scholars could use previous developed scales, depending on the intended objectives of the study. However, the use of existing scales to measure different samples should be applied with caution. It is important to consider whether the previous samples used to develop the scale have similar characteristics to the samples in the proposed study. There is a reason to be concerned that might affect the way that respondents interpret the statements in the scale. As the needs and perception of employee working in offshore environment are complex and diverse, the need of offshore-based scale is necessary to obtain meaningful information. The data obtained would be helpful to scholars and practitioners to make necessary actions.

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