Towards Valuable Source of Sustainable Competitive Advantage in Oil & Gas Sector through Strategic Human Capital Management

Nico C. Paltingca
Philippine Christian University
Graduate Studies Middle East

Imee C. Acosta
Virginia Commonwealth University Qatar
Doha, State of Qatar

Eduardo P. Malagapo
Al Andalus International School
Al Khobar, Saudi Arabia

Abstract

Company sustainability entails the importance not only of a firms' profit and impact to the environment but also to its people, as they are a primary asset of the company considering their unique skills and active roles that contribute to organizational success. The purpose of this research study is to investigate between and among the relationship of the respondent's profile, compensation package, strategy dashboard, employee skills and employee roles in achieving company sustainability. Data gathered from survey questionnaire were tallied and analyzed using SPSS. Descriptive-correlation method design was used to determine the correlation between and among the variables. The findings revealed that job compensation package and strategy dashboard are significantly correlated with employee skills and employee roles. Participants believe that developing, retaining, and compensating committed and talented employees would keep the company in sustained competitive advantage in spite of slumped world oil price that severely affects oil & gas industry.

Keywords*:* Business Management, Human Capital, Competitive Advantage, Employee Roles, Employee Skills, Strategy Dashboard, Human Resource Management, Sustainability

1.0 Introduction

Human Capital is considered the greatest essential element of competitive advantage in most organizations (Memon, Mangi, &Rohra, 2009). It is neither physical capital nor financial capital. In fact, this capital has been defined as the knowledge, skill, creativity, and health of the individual (Becker, 2002). Human capital is considered as a vital component in improving the assets of an organization since it is a sustainable competitive advantage and increases the employees' efficiency (Pasban, &Nojedeh, 2016). In the oil and gas business, human capital is the people factor. Their perseverance and ingenuity, skills and knowledge, potential and capacity, power the industry. No oil and gas asset produces income without the significant input of human capital into the equation (Kitchens, 2016). The precipitous drop in oil prices proves to be dangerously disruptive for certain companies. However, this disruption creates significant opportunities for some to gain competitive advantage through human capital (Adejumo, Olomola, & Adejumo, 2013). If organizations know how its human capital contributes to its success, it can be measured and managed effectively (Memon, Mangi, &Rohra, 2009). Managing human capital amidst the current downturn in the oil and gas sector will mirror the stance of the companies as they struggle to remain profitable. To optimize human capital, Barney (1991) and Wright, McMaham, & McWilliams (1994) suggested that the company resource must provide added value to the firm, it must be rare, it must be inimitable, and it must be non-substitutable to qualify as a source of sustained competitive advantage. Hence, it is important at all levels of management of human capital, is to heighten human skill. Those people who work in the central core of the organization must develop higher skills. They must have enough knowledge, information, innovation, and creativity to increase the customer's satisfaction and create a competitive advantage for the organization (Pasban, & Nojedeh, 2016).

It means that sources of competitive advantage have shifted from financial and technology resources to human capital. To wit, a competitive advantage does not depend primarily on the size of the budget or the products supporting technologies. It depends on employee's attitudes, competencies, education, and skills; their ability to create commitment and trust, communicate goals and work in complex relationships (Pfeffer, 1994; Jasim & Jaber, 1998; Memon, Mangi, & Rohra, 2009; Kitchens, 2016). Guest (1990) cited in Jasim & Jaber (1998) says that if management trusts their employees and give them challenging assignments; as a result, they respond with high motivation, strong commitment, and high performance. Therefore, to experience meaningful growth and to achieve competitive advantage for any company, the forces within it such as human capital must be highly efficient and augmented regarding its quality (Adejumo, Olomola, & Adejumo, 2013).The highly competitive atmosphere in which oil and gas industries operate nowadays, achieving and sustaining competitive advantage is progressively becoming the central theme of firm's survival (Flint &Golicic, 2009 cited in Ibrahim, & Abdullah, 2015). Thus, this paper argues that a company's sustained competitive advantage is not only a matter of profitability. But it also depends on the firm's given situation (Ibrahim & Abdullah, 2015), and about how the organization values their people skills and roles (Pfeffer, 1994; Jasim & Jaber, 1998). The researcher believes that developing, retaining, and compensating highly committed and talented employees would keep the company in sustained competitive advantage. This study identifies the human capital competencies and sustainable business components that determine the company's sustained competitive advantage. Understanding the components that determine sustained competitive advantage has become a major area of research in the field of human resource and strategic management. Therefore, the purpose of this paper is to delineate that the human capital is the key source of competitive advantage. The results can be used as a guiding principle for the emerging and restructuring companies, innovativeness and exploitation of the best human resources for achieving competitive advantage.

2.0 Background

A scientific theory of human capital was developed after the emergence of classical economics in 1776 (Fitzsimons, 1999). Schultz (1961) considered the human capital as one of the importantaspects of the modern economy for national economic growth. With the emergence and development of human capital as an academic field, some researchers tried to clarify regarding the contribution of human capital to the sociopolitical development and freedom (Alexander, 1996; Grubb & Lazerson, 2004; & Sen, 1999 as cited by Kwon, 2009). Regarding academic fields standpoint, the concept of human capital is divided into a different category (Cummins, 2009). Schultz (1961) recognized the human capital is considered as tangible assets and conceptualized as more productive enough than any company assets. Most of the researchers have accepted that his thought viewing the capacity of human capital is related to education, abilities, knowledge, and skills embedded in an individual (Garavan et al., 2001; Youndt et al., 2004, Beach, 2009). Rastogi (2002) intellectualizes the human capital as 'knowledge, competency, attitude and behavior embedded in an individual.' The second standpoint on human capital itself and the accumulation (De la Fuente & Ciccone, 2002, as cited in Alan at al., 2008) of knowledge and skills obtained throughout formal education and his/her experience. The third standpoint is linked to the production-oriented perspective of human capital. Romer (1990) it refers as an ultimate source of economic throughput if the company invests in professional development to his people (Rosen, 1999) to increase their productivity. Education, experience, training, intelligence, energy, work habits, trustworthiness, and initiative are the attributes of human capital that are having an impact on the value of a worker's marginal product (Frank & Bemanke, 2007). With the consideration of the production-oriented viewpoint, employees must have the ability to carry out the job to create economic value by utilizing his learned skills and knowledge (Sheffrin, 2003). As far as social perspective is concerned, to facilitate the creation of personal, social and economic well-being, human capital must have the knowledge, skills, competencies, and attributes as individuals. It gives value to the company via learning through education and training. Human capital is a knowledge embedded in people considering his/her experience included as a category of knowledge (Rodriguez & Loomis, 2007).

The importance of human capital seemed to be more noticeable in capital-intensive industries as well as financial organizations their knowledge to perform their full functionality (Carpenter & Sanders, 2009). Employees are perceived as sources of competitive advantage in service organizations (Crick, 2007; Liao et al., 2009), that makes the organization sustainable compare to physical capital (Holland, Sheehan, and De Cieri, 2007) supported Crick, (2007). The company should not focus only on the behavior of human capital input but with the competencies, attitudes, knowledge, and skills that people brought to the organization (Pilbeam and Corbridge, 2006).

Skills are enhanced through knowledge transfer in a firm-specific training; this helps to improve organizational competitiveness and growth (Chadwick &Dabu, 2009; Kang et al., 2007). A company sustained competitive advantage can be any innovation, product, service, patent, or anything else that positively differentiates from its competitor to prolong the company existence (Rijamampianina et al., 2003). Porter (1998) emphasizes the importance of innovation and strategic human capital management to contribute to a company's competitive advantage.

3.0 Objectives of the Study

The primary objective of the study is to determine the extent to which the employee is considered a valuable asset of the company towards a sustainable competitive advantage and to determine how employee skills and employee roles significantly contribute to the firm's success.

4.0 Method

4.1 Design

Descriptive-correlational method of research was the design used in this study (Williams, 2011; Sousa, Driessnack, & Mendes, 2007). The descriptive research approach is a basic research method that examines the situation, as it exists in its current state. It involves identification of attributes of a particular phenomenon based on an observational basis, or the exploration of correlation between two or more phenomena (Williams, 2011). In the correlational research method, Bold (2001) noted that the purpose of a correlational study is to establish whether two or more variables are related. Creswell (2002) defined correlation as a statistical test to establish patterns for two variables. The statistical analysis of the research question can be conducted through a progression or sequence of analyses using a standard test for correlation that produces a result called "r." The r coefficient is reported with a decimal numeral in a process known as the Pearson Correlation Coefficient (Cooper and Schindler, 2001).

4.2 Research Locale and Participants

The study was conducted in one of the Oil & Gas Company in Qatar for the year 2015-2016. The department involved was the Technical, Maintenance and Production Department. The participants of this study were the employees in the Technical, Maintenance and Production department working in Ras Laffan worksite consisting all male employees working as direct and non-direct hire both employee level and senior level staff. Due to small population size (n=100) all employees specifically working in the technical, maintenance and production department were purposely chosen to answer the survey questionnaire, thus utilizing the purposive sampling technique (Teddlie & Yu, 2007; Tongco, 2007).

4.3 Research Instrument

The survey questionnaire has been developed to identify the main contributors, as categorized in this research, in attaining a sustainable competitive advantage in oil and gas industry as far as human capital is concerned. It is divided into categories such as personal components, job compensation package, enablers, employee skills, and their roles. A total of 105 Likert-type rating questions were used to represent the respondent's perceived value to each category, starting from 1 as strongly disagree to 5 as strongly agree. To validate the reserach, the first draft of the questionnaire was checked by the adviser, and then referred to three experts for content validation. The questionnaire was revised based on their recommendations and suggestions. In order to assess the internal consistency and gauge the reliability of the statements in the survey instrument, the Cronbach Alpha coefficients were calculated (Gliem & Gliem, 2003; George & Mallery, 2003; Field, 2005; Allen, 2005; Vehkalahti, 2000). In this study, the overall Cronbach's alpha coefficient is (= .931) which means that the survey instrument used in this study has a relatively excellent internal consistency (George and Mallery, 2003).

4.4 Data Collection

Data were gathered through a survey questionnaire. The questionnaire was distributed during working hours, mostly during the night shift. Out of one hundred (100) distributed questionnaires, only ninety-one (91) were filled up and returned. Participation in the study was voluntary for all employees in Technical, Maintenance and Production Department. Prior to the distribution of the questionnaire, the following protocols were observed: first, a letter was submitted to the Dean to secure approval to start the survey; second, a letter was sent to the company department head to seek approval to conduct the survey and distribute the questionnaire; third, a letter was sent to the participants to seek permission to participate in the survey and answer the questionnaire.

4.5 Data Analysis

Data were carefully analyzed, and the extent of the relationship between the independent variables and the dependent variables were determined. A quantitative comparison was treated statistically using the Statistical Package for the Social Sciences (SPSS) V21 to measure their relative degree and level of relationship. Frequency, percentage, and weighted mean were also used to treat the variables. The correlation coefficient was used to establish and determine the relationship between variables.

5.0 Results and Discussion

5.1 Respondents' demographic profile

As regards to age, majority of the respondents belong to age bracket 41-45 comprising 29.7% (n=27) of the total number of respondents. Regarding nationality, 40.7% (n=37) are Indians, and most of them have been working in the oil and gas industry for more than 20 years (28.6%, n=26). As to educational attainment, most of them are college graduates (67%, n=61) and are working on a permanent work status (94.5%, n=86) with very few working on contractual status (5.5%, n=5). In terms of position, majority are operators (39.6%, n=36) while others hold supervisory (6.6%, n=6) and senior (17.6%, n=16) positions. Table 1 below shows their demographic profile.

Table 1: Respondents' Demographic Profile

Categories	n	%
Total	91	100.0
Age		
26-30	5	5.5
31-35	12	13.2
36-40	26	28.6
41-45	27	29.7
46-50	9	9.9
51-55	7	7.7
56-60	4	4.4
Above 60	1	1.1
Nationality		
Filipino	25	27.5
Indian	37	40.7
Other Nationalities	29	31.9
Years of service		
1-5 years	7	7.7
6-10 years	22	24.2
11-15 years	16	17.6
16-20 years	20	22.0
Above 20 years	26	28.6

Categories	n	%
Total	91	100.0
Education		
High School Graduate	12	13.2
College Graduate	61	67.0
Master's Degree	13	14.3
Doctoral Degree	1	1.1
Post-Graduate	4	4.4
Work Status		
Permanent	86	94.5
Contractual	5	5.5
Level of position		
Senior	16	17.6
Supervisor	6	6.6
Coordinator	3	3.3
Technician	4	4.4
Leader	26	28.6
Operator	36	39.6

The employees' age profile conforms to the statistics and trends of employment for employees working in the petroleum industry in the following regions: 30-49 age bracket in the Middle East region (Go-Gulf, 2013); 43.5 median age in the US (US Department of Labor, 2017); and the UK oil and gas reported an average age of 40.8 years old.The oil and gas sector is also a changing world in which diversified personnel is considered to bring high value to the organization (Greenetal., 2015). Diversity has the potential to yield greater work productivity and competitive advantage since it brings together a wide variety of skill sets, experience, and cultural backgrounds to enable companies to fully penetrate and take advantage of business opportunities within the local, regional and international markets (Tapp, 2016; Robinson, 2002; SHRM, 1995).There is also a substantial evidence that individuals' educational attainments are associated with positive company advancement because most organizations use education as an indicator of a person's skill levels or productivity of which it is frequently employed as a prerequisite in hiring decisions (Cappelli, 2000; Howard, 1986; Lazear, 1981; Ng, Eby, Sorensen, &Feldman, 2005, Benson, Finegold, & Mohrman, 2004, cited in Ng & Feldman, 2009). However, educational qualification is not just about hiring the employee.

It is about education providing the employee the theoretical knowledge and analytical skill to perform the tasks by bringing a greater depth of understanding to learn new ideas, processes, and technologies faster and more deeply than experience can provide (Cole, 2014).

5.2 Mean Analysis

The subsequent tables are showing the summary of the perceptions of the respondents as regards to job compensation package, strategic dashboard, employee skills, and employee roles. Their responses are shown in tables 2, 3, 4, and 5 respectively.

Table 2: Respondents' Perception on Job Compensation Package

Job Compensation Package	x	rank	Interpretation	Action Plan
Safety	4.46	1	With very high level	Continue/strengthen
Involvement	3.99	2	With high level	Needs some initiative
Compensation and Benefits	3.93	3	With high level	Needs some initiative
Job security	3.86	4	With high level	Needs some initiative
Work life balance	3.86	5	With high level	Needs some initiative
Employee development	3.77	6	With high level	Needs some initiative
Trainings	3.62	7	With high level	Needs some initiative
Equal opportunity	3.59	8	With high level	Needs some initiative
Overall Mean	**3.88**		With high level	Needs some initiative

Considering the eight indicators identified in job compensation package, safety (x = 4.46) is perceived as the most important. Thissuggests that safety is not only a part of employee's job, but it is also a way of life since workers in oil and gas industry are generally susceptible to harmful agents which can lead to various health and illnesses hazards, physical hazards and biological hazards (Wright, 2014).A well-established safety culture is essential to keep people safe. An organization with a strong safety culture is one in which: leaders demonstrate that safety is their overriding value and priority (USNRC, 2014; IRF, 2017); everyone is aware of known hazards while remaining vigilant to new threats (Kilaparthi, 2014); every employee feels empowered and recognized for making safe decisions (Predişcan, & Roiban, 2015); employees feel encouraged to report safety hazards, including instances where they have committed an error and introduced a threat themselves; everyone, including the most junior employee, would not hesitate to take action in response to a safety concern without fear of disciplinary action or reprisal; people work safely regardless of whether or not someone is watching; and the organization is continually learning from its own and others' experiences with the goal of advancing safety (Forward, 2016). Therefore, safety management aims to identify and assess potential hazards existing at the workplace and to define appropriate control and retrieval steps (Chauhan, 2013).

Table 3: Respondents' Perception on Strategy Dashboard

Company Strategy Dashboard	x	rank	Interpretation	Action Plan
Customer and community	4.24	1	With very high level	Needs some initiative
Internal process	4.15	2	With high level	Needs some initiative
Financial values	3.94	3	With high level	Needs some initiative
Company enablers 1 *(Reorganization, review of credentials)*	3.72	4	Agree	Needs some initiative
Company enablers 2 *(Reduction & removal of benefits)*	2.93	5	Moderately agree	Needs more initiative
Overall Mean	**3.80**		With high level	Needs some initiative

The perception of the respondents on strategy dashboard shows that customer and community (x=4.24) is the most important indicator. The result implies that for a company to remain at a competitive edge is to ensure customer satisfaction and acompany contribution to the community and its stakeholders. Kaplan and Norton (1992) mentioned that customer's perspective includes four categories, which are lead-time, quality, performance, and services. The company must aim to satisfy customers by providing quality products/services at the right time to fulfill their requirements. Customer satisfaction will lead to higher customer retention rates and therefore the potential for increased profits (Figge*et al.,* 2002; Slaper and Hall, 2011) and remain in business in spite of slumped world oil price that severely affects oil & gas industry.

Table 4: Respondents' Perception on Employee Skills

Employee Skills	x	rank	Interpretation	Action Plan
Technological skills	4.11	1	With high level	Needs some initiative
Management skills	4.05	2	With high level	Needs some initiative
Communication skills	4.04	3	With high level	Continue/strengthen
Technical skills	4.02	4	With high level	Needs some initiative
Adaptability skills	3.98	5	With high level	Needs some initiative
Problem-solving skills	3.97	6	With high level	Needs some initiative
Customer service skills	3.92	7	With high level	Needs some initiative
Overall Mean	**4.01**		With high level	Needs some initiative

Among the indicators of employee skills, the respondents perceived technological skills (x = 4.11) as most essential. This suggests that the development of computer technology has had a profound impact on the oil industry, and today every phase of oil-company operations involves data manipulation using computers (Heath, 2000). Oil and Gas companies began to adopt digital technologies, with a focus on better understanding a reservoir's resource and production potential, improving health and safety and boosting marginal operational efficiencies at oil fields around the world. With the falling crude prices and, frequent budget and schedule overruns, together with greater demands of climate change accountability and difficulties; digitalization can act as an enabler to tackle these challenges and provide value to all its stakeholders (World Economic Forum, 2017; Accenture, 2017). Hence, the industry is now beginning to pay heed by investing in human capital and development programs that promote new, digital thinking. Ultimately, a digital-savvy workforce is both a foundational enabler of transformation and a key driver for maximizing value capture (World Economic Forum, 2017; Figgis and Standen, 2005) and the application of digital technologies can lead to conservation of natural resources by increasing the percentages of oil and gas recovered from existing reservoirs (Idachaba, 2012).

Table 5: Respondents' Perception on Employee Roles

Employee Roles	x	rank	Interpretation	Action Plan
Commitment	4.15		With high level	Needs some initiative
Technical expertise	4.15	1	With high level	Needs some initiative
Technological expertise	4.10	2	With high level	Needs some initiative
Team-playing	4.09	3	With high level	Needs some initiative
Competence	4.03	4	With high level	Needs some initiative
Decision making	3.87	5	With high level	Continue/strengthen
Innovation	3.87	6	With high level	Needs some initiative
Overall Mean	**4.04**		With high level	Needs some initiative

Respondents perceived the relative importance of commitment (x = 4.15) as the most valuable employee role to perform as shown in table 5.Studies have highlighted that commitment has a significant impact on the successful performance of an organization. It is because a highly committed employee will identify with the goals and values of the organization, has a stronger desire to belong to the organization and is willing to display greater organizational citizenship behavior (Nehmeh, 2009). Moreover, several research studies found that highly competitive compensation systems promote employee commitment and thus results in the attraction and retention of a superior workforce (Huselid et al., 1999 & Guthrie, J. P. 2001 as cited by Osibanjo, et al., 2014). In addition, treating employees as important and respected individuals contribute to their commitment (Steers, 1977 as cited by Dessler, 1999). Furthermore, Royer & Bradley (2010) suggested that a "communal-like" (close) relations between employers and employees can lead to a higher motivation of employees, and increased organizational performance and a close relationship correlates with a higher level of self-reported job and organizational commitment (Millward and Hopkins, 1998; Mc Elroy, 2001). Consequently, organizational commitment binds an employee to entities and behavior and can result in lower turnover intentions, lower actual turnover, and positive workplace behavior. However, valuable employees are usually mobile, leading to insecurity for the employer to be able to sustain resulting advantages (Bradley et al., 2008). The commitment of an employee in this context would, therefore, be of high strategic relevance.

5.3 Correlation Analysis

Tables 6 and 7 show the summary of correlation analysis between and among the respondent's profile and job compensation package, strategic dashboard, employee roles, and employee skills. The interpretation of the correlation coefficients are based on the interpretation of Calmorin (1984) as follows: 0.00 – 0.20 has low, negligible relationship; 0.21 – 0.40 has a present, but slight relationship; 0.41 – 0.70 has marked substantial relationship; and 0.71 – 1.00 has high to verya high relationship.

Table 6: Correlation Matrix

Profile of respondents	Job Compensation Package				Strategic Dashboard		Employee Skills		Employee Roles			
	Employee Development		Compensation and Benefits		Financial /Value		Technological Skills		Commitment		Innovation	
	r	*p*	*r*	*p*	*r*	*p*	*r*	*p*	*r*	*p*	*r*	*p*
Age							.217*	.039				
Education					.208*	.048						
Nationality	-.288**	.006	-.226*	.032					-.239*	.023	-.262*	.012
Years of service					.252*	.016						

***p = .01 level (2-tailed) *p = .05 level (2-tailed)*

On table 6, correlation analysis was carried out between the respondents' profile and the job compensation package. As presented, among the respondents' profile variables, onlythe nationality appeared to have a significant relationship with job compensation package as indicated by the corresponding computed r-values (employee development, with a computed r = -.288, p=.006 and compensation and benefits, with anr-value of -.226, p=.032). This finding is supported by the GCC 2016 Salary Survey conducted by Gulf Business, which revealed that there is a major discrepancy in salary packages between Arab, Western and Asian Expats. According to the 2016 Salary Survey, the racial pay divide saw 28.9% of Westerners getting paid more than Asians. It also revealed that Westerners' salaries were 4.67% higher than Arabs (Emirates Woman, 2016; Gulf Business 2013), which is supported by the study of Tong (2010) for salary scales in UAE, which revealed similar result. Although, the Equal Pay Act of 1963 makes it illegal for employers to pay you fewer wages on the basis of your religion, gender, disability, race, marital status, national origin, age, pregnancy status or genetic information for doing the same or similar work as other employees.Generally, the market discrepancies do seem to link back to differences in wage rates across the various expatriate home countries wherein local companies are still willing to pay a premium for Western expatriates from outside the region, due to the perception that they possess a particular skill set not locally available and that they have to be paid comparable rates for the same position in their home country (Gulf Business, 2013). This stereotype supports the pay status hierarchy with Western countries perceived as more skilled and wealthy than other countries (Autin & Butera, 2016). Gustafson (2016) argued that discrimination is the primary factor that contributes to different pay levels for employees doing the same job. However, Tong (2010) asserted that the primary reason for the high-income inequality lies in the high diversity of human capitals in the labor force measured in terms of education, occupations, skills, age, tenure, and so on. Overall, the defining characteristic of the wage system is its high level of inequality and segmentation across various sections of the economy.

On the correlation between the strategic dashboard and respondents' profile, education (r=.208, p=.048) and years of service (r=.252, p=.016) came out to be significantly related to financial/value. It can be deduced that the employee's level of education becomes higher in addition to the higher number of years of experienced; their perception in terms of financial/value becomes wider because of the exposure to the different working environment. The human capital theory assumes that education provides individuals with productive skills, and employers are willing to reward productivity (Becker, 1962, 1976 cited by Barone et al., 2011). In between, there are several theories proposing that education may not only provide ready-to-use skills but indicates potential productivity or trainability on which employees acquire through the years of service (Arrow, 1973; Spence, 1973; Thurow, 1975; cited by Barone et al., 2011; Auer et al., 2004).In terms of employee skills and the respondents' profile, the correlation analysis revealed that age (r=.217, p=.039) appeared to have a significant relationship with employee skills.

The finding jived with the claim that most of the younger generation is more technologically savvy than the old ones, because of their eagerness to learn new things and aggressiveness in exploring things around them (Jacko, 2012; Voelcker-Rehage, 2008). Since most of the new information is freely available online which are accessible on computers, smartphones, and tablets, younger employees are at an advantage because they can adapt easily to new technology (Blazer, Yaffe, & Liverman, 2015; Jacko, 2012). Issues of skill obsolescence and worker retraining are highly significant for older workers, as they are often bypassed for training or retraining opportunities (Lee, Czaja, &Sharit, 2008; Czaja& Moen, 2004; Griffiths, 1997). Older employees may also be less willing to invest in retraining, as they may have a decreased expectancy of obtaining valued outcomes (such as promotion), or the value of these outcomes may diminish with age (Fossum, Arvey, Paradise, and Robbins, 1986). Today's older workers are also less likely than younger workers to have had exposure to technology such as computers (Czaja and Sharit, 1998). A number of studies (Elias, Elias, Robbins, and Gage, 1987; Gist, Rosen, and Schwoerer, 1988; Zandri and Charness, 1989; Czaja, Hammond, Blascovich, and Swede, 1989b; Czaja, Hammond, and Joyce, 1989a; Charness, Schumann, and Boritz, 1992; Morrell, Park, Mayhorn, and Echt, 1995; Mead, Spaulding, Sit, Meyer, and Walker, 1997; cited by Czaja & Sharit, 1998) have examined the ability of older adults to learn to use technology; generally, older adults are, in fact, able to use technology such as computers for a variety of tasks. However, they are typically slower to acquire new skills than younger adults and generally require more help and "hands-on" practice. Also, when compared with younger adults on performance measures, older adults often achieve lower levels of performance (Gross & Rebok, 2011; Sears &Jacko, 2009; Fein, McGillivray, & Finn, 2007).

As regards to the correlation between the respondents' profile and employee roles, nationality appeared to have a significant relationship with commitment (r=-.239, p=.023) and innovation (r=-.262, p=.012). The negative correlation coefficient indicates that different nationalities have varying commitment and innovation strategies (Siep, 2010).Since the company is consist of diverse nationals and came from the different country of origin/state, the level of job commitment and innovation strategy varies, which are purely based on the culture of previous experience and support from the organization (Connor, McFadden, & McLean, 2012; Trebilcock, 2011). However, it gives an advantage to the organization. Different working culture will contribute a lot of ideas through brainstorming, which is good for the company to choose and collect the best ideas from the team. Diversity initiatives benefit companies' bottom line and help them maintain a competitive edge, according to a 2001 survey by the Society for Human Resource Management and Fortune magazine (SHRM, 2001). Recruiting and retaining people of diverse backgrounds who can share a common set of values and approach to business – is a priority for today's competitive organization (McCormack, 2002). Diversity in gender, race, and age on senior management teams is correlated with superior business performance in worker productivity, net operating profits, gross revenues, total assets, market share, and shareholder value (Bureau of National Affairs, 1998). Promoting diversity attracts talented workers, reduces turnover, and unleashes creativity (Silverstein, 1995; Diversity Inc., 2002). Strong CEO and upper management support for diversity initiatives, along with affinity groups, mentoring programs, and work/life policies, build employee loyalty and a growing commitment to a company's business goals (SHRM, 2001; Diversity Inc., 2002; cited by McCuiston et al., 2004).

Table 7: Correlation Matrix of Job Compensation Package,

Strategic Dashboard, Employee Skills, and Employee Roles

	Employee Skills		Employee Roles	
	r	*p*	*r*	*p*
Job Compensation Package	.853**	.000	.902**	.000
Strategic Dashboard	.585**	.000	.663**	.000

***p = .01 level (2-tailed)*

On table 7, data showed that job compensation package and strategic dashboard are correlated with employee skills and employee roles (r=.853, .902, .585, and .663 respectively, with p=.000 at .01 level) indicating a very high relationship. Job compensation package and company strategic dashboard greatly affect employee skills and employee roles that will determine the sustainability of human capital. On the one hand, job compensation package is a major factor in attracting and retaining skilled staff.

To attract, retain, and profitable, organizations need innovative job compensation package that motivates employees, thereby working hard to improve their skills and perform their roles effectively (Mabaso and Dlamini, 2017). As mentioned by Ibrahim & Boerhaneoddin, (2010) and Netswera, Rankhumise & Mavundla (2005) unfavorable working conditions and unattractive remuneration packages have in most industries led to skills migration.Several researchers forecast that talent shortages are going to increase well into the next decade, which will limit the ability of organizations to expand and will jeopardize their chances of survival as global competition becomes more intense, especially in the oil and gas industry (Aydogdu & Asikgil, 2011; Krell, 2011; Gordon, 2009).The loss of one competent employee to a competitor institution strengthens the competitor's advantage (Netswera, Rankhumise, and Mavundla; 2005) hence, organizations need innovative job compensation package to attract and retain highly skilled and committed employees.

On the other hand, a company's strategic dashboard or balance scorecard is a way of measuring a company's success through the outputs produced by the employees (Chaudron, 2003). To meet the organizational objectives, organizations must identify the key business players, the employees. A strategic dashboard is company enablers, mainly focused on the review of current compensation, re-organization, and training & development. A successful implementation is highly dependent on human capital competencies as they are the important asset of the company towards a sustainable competitive advantage. Much of the success of the scorecard depends on how the measures are agreed, the way they are implemented and how they are acted upon (Bourne, 2002). The strategic dashboard establishes goals but assumes that people will adopt whatever behaviors and take whatever actions are necessary to arrive at those goals. The measures are designed to pull people toward the overall vision (Syed, 2007). It keeps companies looking and moving forward instead of backward (Kaplan & Norton, 1996).

6.0 Conclusion

The extent of strategic human capital management towards the valuable source of sustainable competitive advantage in the oil and gas sector as revealed in this studyis centered on the importance of job compensation package and strategy dashboard as the rudiments behind the advancement of employee skills and employee roles. Participants deemed safety as top-priority in a hazardous work environment; technological skills as an enabler to tackle industry challenges; commitment as mover that creates positive employee behavior; and satisfying customer and the community leads to higher retention of clients, thus sustaining the industry. Participants also believed that developing, retaining, and compensating committed and talented employees would keep the company in sustained competitive advantage in spite of slumped world oil price that severely affects oil & gas industry. However, the findings of this study represent only the existing conditions of the oil and gas company where it was conducted; thus, these do not dictate the absolute significance or insignificance of any of the variables. Findings, as researchers know, may vary from one locale, generation, or context to another. Hence, there is a call for future researchers to conduct related studies exploring similar variables and other factors of great relevance.

References

Accenture (2017 January). Digital Transformation Initiative: Oil and Gas Industry. Retrieved from: http://reports.weforum.org/digital-transformation/

Adejumo, A. V., Olomola, P. A., &Adejumo, O. O. (2013). The Role of Human Capital in Industrial Development: The Nigerian Case (1980-2010). *Modern Economy*, *2013*.

Alan, K. M. A., Altman, Y., & Roussel, J. (2008). Employee Training Needs and Perceived Value of Training in the Pearl River Delta of China: A Human Capital Development Approach. Journal of European Industrial Training, 32(1), 19-31.

Allen, K. (2005). Explaining Cronbach's alpha. University of Oklahoma, Dept. of Industrial Engineering.

Aydogdu, S. and B. Asikgil (2011). An empirical study of the relationship among job satisfaction, organizational commitment and turnover intention. *Int. Rev. Manage. Market.*, 1: 43-53.

Blazer, D. G., Yaffe, K., &Liverman, C. T. (2015). Characterizing and Assessing Cognitive Aging.

Barney, J. 1991. "Firm resources and sustained competitive advantage" *Journal of Management*, Vol. 17, No 1, pp99-120.

Becker, G. S. (2002). The age of human capital. Education in the Twenty-First Century, 3–8.

Bold, M. (2001). Retrieved April 9, 2003, from University of North Texas Center for Parent Education Website: http://www.unt.edu/cpe/module3blk2survey2.htm.

Bradley, L. M., Royer, S., &Eckardt, F. (2008). There is a link between work life balance culture and strategic competitive advantage.

Calmorin, L. (1984). Educational Management and Evaluation. Manila: National Bookstore, Inc.

Calvin Mzwenhlanhla Mabaso and Bongani Innocent Dlamini (2017). Impact of Compensation and Benefits on Job Satisfaction. *Research Journal of Business Management, 11: 80-90*.10.3923/rjbm.2017.80.90

Chauhan, N. (2013). Safety and health management system in oil and gas industry. *Wipro Technologies, Sarjapur Road, Bangalore, India*.

Cole, Jo (2014, Feb 17). What's more important: Qualifications or experience? Available on: https://www.totaljobs.com/insidejob/whats-more-important-qualifications-or-experience/

Connor, G., McFadden, M., & McLean, I. (2012). Organizational design. *Developing people and organizations*, 1-35.

Cooper, D. R. & Schindler, P. S. (2001). Business research methods. New York: McGrew-Hill Companies

Creswell, J. W. (2002). *Educational research: Planning, conducting, and evaluating quantitative* (pp. 146-166). Upper Saddle River, NJ: Prentice Hall.

Cummins, R. A. (2009, October). Measuring population happiness to inform public policy. In *The 3rd OECD World Forum on 'Statistics, Knowledge and Policy' Charting Progress, Building Visions, Improving Life, Busan, Korea* (pp. 27-30).

Czaja, S. J., & Moen, P. (2004). Technology and employment. Technology for Adaptive Aging. Washington (DC): National Academies Press (US) Available on: https://www.ncbi.nlm.nih.gov/books/NBK97338/

Dessler, G. (1999). How to earn your employees' commitment. *The Academy of Management Executive (1993-2005)*, 58-67.

Emirates Woman (2016). Salary Gap Between Nationalities In The GCC Revealed. Available on: http://emirateswoman.com/salary-gap-between-nationalities-in-the-gcc/

Fein, G., McGillivray, S., & Finn, P. (2007). Older adults make less advantageous decisions than younger adults: Cognitive and psychological correlates. *Journal of the International Neuropsychological Society*, *13*(3), 480-489.

Field, A.P. (2005). Discovering Statistics Using SPSS, 2nd Edition. London. Sage.

Figge, F., Hahn, T., Schaltegger, S., and Wagner, M. (2002). "The Sustainability Balanced scorecard-Theory and Application of Tool for Value-Based Sustainability Management." uneberg, Germany: Center for Sustainability Management, University of Lueneberg.

Figgis, J., &Standen, A. (2005). *Training skilled workers: Lessons from the oil and gas industry*. National Centre for Vocational Education Research.

Fitzsimons, P. (1999). Human capital theory and education. The Encyclopedia of Education. London: Macmillan.

Forward, P. (2016). Advancing Safety in the Oil and Gas Industry-Statement on Safety Culture. Available on: https://www.neb-one.gc.ca/sftnvrnmnt/sft/sftycltr/sftycltrsttmnt-eng.html

Frank, R. H., & Bernanke, B. S. (2007). Principles of Microeconomics (3rd ed.). New York: McGraw- Hill/Irwin.

Garavan, T. N., et al. (2001). Human Capital Accumulation: The Role of Human Resource Development. Journal of European Industrial Training, 25(2), 48-68.

George, D., & Mallery, P. (2003). SPSS for Windows step by step: A simple guide and reference. 11.0 update (4th ed.). Boston: Allyn & Bacon.

Gliem, J. A., &Gliem, R. R. (2003). Calculating, interpreting, and reporting Cronbach's alpha reliability coefficient for Likert-type scales. Midwest Research-to-Practice Conference in Adult, Continuing, and Community Education.

Go-Gulf (2013 December 13). Employment in the Middle East, Statistics and Trends (Infographic). Available in: http://www.go-gulf.ae/blog/employment-in-middle-east/

Gordon, E.E., 2009. Winning the Global Talent Showdown.Berrett-Koehler Publishers, San Francisco

Gross, A. L., &Rebok, G. W. (2011). Memory training and strategy use in older adults: results from the ACTIVE study. *Psychology and aging*, *26*(3), 503.

Gulf Business (2013). REVEALED: GCC Asian Expats Earn 26% Less Than Western Peers. Available on: http://gulfbusiness.com/revealed-gcc-asian-expats-earn-26-less-than-western-peers/#.UTWMV4X_61Q

Gustafson-Richards, Flora (2016). 4 Factors That Can Result in Different Pay Levels for Employees Doing the Same Job. Business Chronicle. Available on: http://smallbusiness.chron.com/4-factors-can-result-different-pay-levels-employees-doing-same-job-17662.html

Heath, C. P. M. (2000). Technical and non-technical skills needed by oil companies. *Journal of Geoscience Education*, *48*(5), 605-616.

Ibrahim, I.I. and A. Boerhaneoddin (2010). Is job satisfaction mediating the relationship between compensation structure and organisational commitment? A study in the Malaysian power utility. J. Global Bus. Econ., 1: 43-61.

Ibrahim, Muhammad Garba and Abdullah, Haim Hilman (2015) Gaining sustainable competitive advantage through human capital: Does firm specific human capital or general human capital matter? In: AGBA's 12th Annual World Congress, November 16 --19, 2015, University of Malaysia Pahang, Kuala Lumpur Campus, Malaysia.

Idachaba, F. E. (2012). Current Trends and Technologies in the Oil and Gas Industry. *International Journal of Emerging Technology and Advanced Engineering*, *2*(7).

International Regulator's Forum (2017 March). Advancing Safety Culture across the Offshore Oil and Gas Industry. Canada- Nova Scotia Offshore Petroleum Board, Canada-Newfoundland and Labrador Offshore Petroleum Board, and Canada's National Energy Board. Available on: http://www.irfoffshoresafety.com/articles/2017/2017MARCH-Canada-AdvancingSafetyCulture.pdf

Jacko, J. (2012). The Human Computer Interaction Handbook. Fundamentals of Emerging Technologies and Emerging Applications, Third Edition. CRC Press. New York

Jassim, R. K., &Jaber, G. (1998). Competitive advantage through the employees. Research paper, University of Auckland New Zealand.

Kaplan, R.S. and Norton, D.P. (1992). "Measures That Drive Performance." Harvard Business Review. 71 -79.

Kaplan, R. S., & Norton, D. P. (1996). Linking the balanced scorecard to strategy. *California management review*, *39*(1), 53-79.

Kilaparthi, J. (2014). Assessment of Safety Culture in Global Offshore Environments. *Journal of Environmental Protection*, *5*(11), 1003.

Kitchens, Christina (2016 April 21). The value of human capital. Oil & Gas Financial Journal. Available on: http://www.ogfj.com/articles/print/volume-13/issue-4/departments/capital-perspectives/the-value-of-human-capital.html

Krell, E., 2011. The global talent mismatch. *HR Mag.*, 56: 68-73.

Kwon, D. B. (2009, October). Human capital and its measurement. In *Proc. The 3rd OECD World Forum on Statistics, Knowledge and Policy* (pp. 6-7).

Lee, C. C., Czaja, S. J., & Sharit, J. (2008). Training older workers for technology-based employment. *Educational Gerontology*, *35*(1), 15-31.

Memon, M.A., Mangi, R. A., and Rohra, C. L. (2009). Human Capital a Source of Competitive Advantage "Ideas for Strategic Leadership",*Australian Journal of Basic and Applied Sciences*, 3(4): 4182-4189.

Netswera, F.G., E.M. Rankhumise and T.R. Mavundla, 2005. Employee retention factors for South African higher education institutions: A case study. S. Afr. J. Hum. Resour. Manage., 3: 36-40.

Nehmeh, R. (2009). What is organizational commitment, why should managers want it in their workforce and is there any cost effective way to secure it. *Swiss Management Center (SMC) working paper retrieved at www. swissmc*.

Ng, T. W., &Feldman, D. C. (2009). How broadly does education contribute to job performance?. *Personnel psychology*, *62*(1), 89-134.

Osibanjo, A. O., Adeniji, A. A., Falola, H. O., &Heirsmac, P. T. (2014). Compensation packages: a strategic tool for employees' performance and retention. *Leonardo Journal of Sciences*, (25), 65-84.

Pasban, M. &Nojedeh, S.H. (2016). A Review of the Role of Human Capital in the Organization. Procedia - Social and Behavioral Sciences, Volume 230, 12 September 2016, Pages 249-253.

Predişcan, M., &Roiban, R. N. (2015). EMPLOYEE INVOLVEMENT IN A CHANGE PROCESS-A CASE STUDY FOR ROMANIAN ORGANIZATIONS. *THE ANNALS OF THE UNIVERSITY OF ORADEA*, 1158.

Royer, S., & Bradley, L. M. (2010). Providing a better work environment for competitive advantage–Conceptual considerations linking commitment and firm-specific human resources. In *Proceedings of: 24th Annual Australian and New Zealand Academy of Management Conference–Managing for Unknowable Futures*. ANZAM Conference 2010. Available on: http://eprints.qut.edu.au/39255/1/ANZAM_-_Royer.pdf

Sears, A. and Jacko, J. (2009). Human Computer Interaction. Designing for Diverse Users and Domains. CRC Press. New York.

Sheffrin, M. S. (2003). Economics: Principles in Action. New Jersey: Pearson Prentice Hall.

Siep, S. M. (2010). *Organizational strategies and expected employee work behavior: a study regarding innovative work behavior, affective commitment to the organization and customer orientation* (Master's thesis, University of Twente).

Slaper, T., & Hall, T. (2011). The Triple Bottom Line: What Is It and How Does it Work?. *Indiana Business Review*, *86*(1), 4-8.

Sousa, V. D., Driessnack, M., & Mendes, I. A. C. (2007). An overview of research designs relevant to nursing: Part 1: quantitative research designs. *Revistalatino-americana de enfermagem*, *15*(3), 502-507.

Syed, M. A. (2007). IT Framework for the Implementation of Balanced Scorecard in Healthcare Systems.

Tapp, Luke (2016 November 14). Making a case for workplace diversity in energy sector. Available on: http://gulfnews.com/business/analysis/making-a-case-for-workplace-diversity-in-energy-sector-1.1929011

Teddlie, C., & Yu, F. (2007). Mixed methods sampling: A typology with examples. *Journal of mixed methods research*, *1*(1), 77-100.

Trebilcock, A. (2011). Labour Relations and Human Resources Management: An Overview. *Geneva: ILO available online at www. ilo. org/iloenc/part iii*.

US Department of Labor (2017 February 8). Labor Force Statistics from the Current Population Survey. Available on https://www.bls.gov/cps/cpsaat18b.htm

USNRC (2014 March). Leadership Safety Values and Actions. US Nuclear Regulatory Commission. Available on: https://www.nrc.gov/docs/ML1405/ML14051A543.pdf

Vehkalahti, K. (2000). Reliability of measurement scales. Available in: http://hbanaszak.mjr.uw.edu.pl/TempTxt/Vehkalahti_.XXXX_ReliabilityOfMeasurementScales.pdf

Voelcker-Rehage, C. (2008). Motor-skill learning in older adults—a review of studies on age-related differences. *European Review of Aging and Physical Activity*, *5*(1), 5.

Williams, C. (2011). Research methods. *Journal of Business & Economics Research (JBER)*, *5*(3).

World Economic Forum (2017). Digital Transformation Initiative: Oil and Gas Industry. World Economic Forum, Geneva, Switzerland. Retrieved from: http://reports.weforum.org

Wright, P., McMaham, G. and McWilliams, A., 1994 "Human resources and sustained competitive advantage: a resource-based perspective" *International Journal of Human Resource Management*, Vol. 5, No 2, pp 301-326.

Wright, J. (2014). Recruiting & Retention Opportunities for the Energy Industry in a Changing Environment. *Energy Practice*, *5*.