

## **Logistics and Performance in the Shipping Industry**

## **Logistics and Performance in the Shipping Industry**

Mr. Aniekan Akpan  
Mearsk Shipping  
Ana207@mearsk.com

Dr. Stephane Bignoux  
Middlesex University  
Williams Building  
The Burroughs  
Hendon NW4 4BT  
s.bignoux@mdx.ac.uk

### **Track:**

Operations, Logistics and Supply Chain Management

### **Word count:**

4004 words

# **Logistics and Performance in the Shipping Industry**

## **ABSTRACT**

This paper conceptually investigates the effects of Strategic Human Resources Management on the performance of shipping firms within the global shipping industry. The paper's conceptual findings show that all three components of strategic HRM, i.e. selection and recruitment, retention and staff termination, have a positive effect on the operational performance of shipping firms. However, implementation of each aspect of strategic HRM is important. The employee must be placed at the centre of the implementation process. Ignoring the employee's needs can have a negative effect on operational performance.

## **INTRODUCTION**

The objective of this research is to identify and highlight the link between people and performance in the global shipping industry. The aim is to conceptually investigate how shipping firms use strategic human resources management to improve their operational performance in the global shipping industry. Strategic human resource management (SHRM) is defined as the intentions of the corporation both explicit and covert, towards the management of its employees, expressed through philosophies, policies and practices (Tyson 1995). It is the design, implementation and maintenance of strategies to manage people for optimum business performance including the development of policies and processes to support these strategies and the evaluation of the contribution of people to the business. And, performance is defined as the production of valid results for accomplishment of a given task measured against preset known standards. For the purposes of this research, these preset standards are operational in nature. That is, they include technical and navigational safety performances; budget performance in line with the set daily running cost per vessel; dry docking planning because of high cost associated with dry docking and the loss of income when vessel is in the dry dock (Konst & Plomaritou 2012). This conceptual investigation argues that a shipping firm aiming to expand and increase its performance needs an effective human resource strategy.

The conceptual analysis shows a link between strategic human resource management and operational performance in the global shipping industry. All three subsets of strategic HRM as defined in this article, i.e. selection & recruitment, retention and staff termination, have a positive effect on the operational performance of shipping firms. However, these conceptual findings are dependent on one crucial factor. The findings indicate that the implementation of each aspect of strategic HRM is crucially important. The employee must be placed at the centre of the implementation process. That is, if the employee is ignored then a positive effect between strategic HRM and operational performance can become a negative effect between strategic HRM and operational performance.

The following conceptual investigation is organized into five sections. The first section contains a brief review of the literature on the global shipping industry. The second looks at the literature on performance measurement within the shipping industry, i.e. the ways/methods shipping companies' measure performance. The third reviews the literature on HR strategy and looks at the various components of a HR strategy including its effect on operational performance. We conclude the paper with a discussion of the conceptual findings.

# **Logistics and Performance in the Shipping Industry**

## **LITERATURE REVIEW**

### **The Shipping Industry**

In 2011, the world merchant fleet comprised of 47,833 ships with a combined deadweight tonnage of 1.35 billion tonnes. From 2010 to 2011 the industry grew by 9.3% (ISL Shipping review 2011). In 2007 the offshore support vessels sector of the shipping industry, platform supply vessels and offshore support vessels such as anchor handling tugs, numbered 4394, while other offshore support vessels numbered 2764 with a combine deadweight tonnage of the offshore fleet at 7.5 million tonnes (Stopford 2009).

The worldwide service offered by shipping companies varies from oversea transport (people and equipment) to subsea support, transport of equipment to and from drilling rigs and production units, anchor handling expertise especially in ultra deep water, mooring installations and towage of offshore structures, drilling rigs/ships and barges.

The continued push for better results in this industry and increased agility made it clear to shippers that talent management strategies which had worked in the past were not enough to deliver future results. Shipping businesses operate in highly competitive environments. This makes the human factor an important strategic weapon in staying ahead of the competition. Many shipping companies have thus placed HR at the heart of the business in delivering business requirements in line with corporate strategy. Human capital is therefore at the epicentre of the strategic discussion in the shipping industry.

The aim of these strategic changes is to ensure safe operation of each fleet of advanced offshore support vessels, anchor handlers and project vessels. In doing so HR strives to ensure that seafarers are meeting regulatory as well as business driven requirements. Through employment of professional, qualified, competent and cost-competitive crew the continuing focus is to operate and sustain a second to none operational excellence. As the quality of seafarers is of utmost importance to drive the shipping business, the focus is to ensure that each company maintains operational experience. This involves establishing a global standard on operational performance standards as well as on requirements for training and crew competencies.

### **Performance in the Shipping Industry**

Performance in the shipping industry is simply the production of valid results or accomplishment of a given task measured against preset known standards (Trivedi 2010.). Organisations need to be efficient and effective, in particular in the optimum use of resources and the ratio of outputs to inputs. Performance in this industry is therefore related to such factors as increasing profitability, improved service delivery or obtaining the best results in the important areas of organisational activities. Performance will also include meeting satisfactorily or exceeding the demands of customers and being adaptable to specific requirements, changes in the external environment and the demands of the situation (Millar 2007).

Although some studies do not support the notion that HR policies and practices affect performance (Lahteenmaki & Storey 1998), a larger section of the HR community accept that there is sufficient evidence to claim that HR policies and practices do affect company performance (Purcell et al., 2000; Guest, 2002; Patterson et al., 1997). For example, Caulkin

## Logistics and Performance in the Shipping Industry

(2001) asserts that, how organisations manage and develop people has a perhaps the most powerful effect on performance including the bottom line. In the shipping industry, key performance indicators (or KPIs) are used to measure performance. There are both financial and non-financial performance measures. For example, lost Time Injury Frequency (LTIF) is a good example of a non-financial measure. And, return on investment (ROI) is a good example of a financial measure. According to Konsta and Plomaritou (2012), the most important performance indicators are safety, operational and technical performance indicators. Other types of indicators are environmental, navigational, security, financial and human resources management performance indicators. Each of the individual KPI influences others (Latorre et al 2010). For example, safety is related to cost. It is known that a ship manager has to adhere to national and international regulations that constantly change. As changes are implemented in the shipping industry due to legislation insisting on safety precautions, safety measurements will also increase. As a result, the increase in safety means an increase in cost (however, in the long term, increased safety will decrease cost due to marine accident prevention). Furthermore, raised safety performance measurements lead to raised operational and technical performance measurements. The following performance variables are measured in a typical shipping company:

- Environmental performance
- Safety performance
- HR management performance
- Financial performance
- Security performance
- Operational performance
- Technical performance
- Navigational performance.

*Environmental performance.* A shipping company's environmental policy is usually committed to the protection and conservation of the environment and places a high priority on environmental considerations in managing the business. Firstly, to meet the ambitious environmental targets and secondly, to reduce maintenance cost on the engines. The continuous monitoring of all environmental aspects of operations seeks to minimise the ship's impact on the environment and to strive for zero spills to the environment, meeting both regulatory commitments and stakeholder expectations. Environmental performance also measures the following KPIs over a set target of zero in line with environmental policy:

- Measure and control of compliance with the International Convention for the prevention of pollution from ships (MARPOL) Annex 1-6 which include monitoring the following performance indexes;
  - ✓ Releases of substances as defined by MARPOL Annex 1-6
  - ✓ Ballast water violations
  - ✓ Contained spills
  - ✓ Environmental deficiencies
- Monitor compliance to company environmental plan thereby reducing fuel bill, reduced maintenance cost of engines and reducing the operating cost
- Enhancing environmental credentials required by customers and also ensuring corporate social responsibility (CSR)

## Logistics and Performance in the Shipping Industry

*Safety performance.* Shipping companies operate under conditions that are potentially dangerous. Risk assessment is a cornerstone of daily operations in this industry. Risks are continuously identified, assessed and minimized, controlled or eliminated. In the offshore support service industry, safety performance is a key index. It is essential that employees, customer representatives and all other stakeholders are kept safe at all times. The safety performance outcomes are set against a target of zero in compliance with the policy of continuous improvements towards a long term target of zero accidents. The Key performance indicators used to benchmark safety performance include:

- Number of fatalities, fatal accident and incident rates (Near misses)
- Lost Time Injury Frequency
- Restricted Work Day Frequency

In monitoring safety, the reduction or total avoidance of work related injury and/or accidents will impact on the cost associated with fatalities, damage to property and the environment. Selected leading indicators can be very useful for monitoring key inputs that will enhance safety culture, e.g. safety observations cards. Safety performance outcomes indicators' (e.g. Lost Time Injuries, etc.) give insights into the current safety culture at a macro level. Safety performance indicators can be very useful to overall monitoring of an organisation's safety culture and can help to prompt more detailed investigations. The added cost of safety equipment and personnel in monitoring is a drawback.

*HR management performance.* This is a measure of the employee and/or crew performance. Performance indicators measured include; crew planning, employee retention rate, Training days per officer and HR deficiencies. The performance of the HR department is crucial if human capital is to be at the epicentre of achieving corporate strategy. The HR department will measure and control this with a view to improving performance. The advantage of monitoring HR performance is that it will give insight to the HR objectives being met or otherwise. The performance index of Recruitment and Selection will take into account the average variable cost per recruit, average number of days taken to fill a vacancy and the percentage of vacancies that are filled first time. Training and Development index will also be monitored including the average number of days training per employee per annum and the average variable spend on training per employee annum. Staff turnover and retention performance index and the cost to the organisation.

*Operational performance.* The measure of operational performance includes technical and navigational safety performances. The different KPIs measured include budget performance in line with the set daily running cost per vessel. Another key indicator under operational performance is the dry docking planning and performance because of high cost associated with dry docking and the loss of income when vessel is in the dry dock. There is also loss of income due to detentions arising from Port State control deficiencies, International Safety Management (ISM) and/or the International Ship and Port Facility Security Code (ISPS Code) audit deficiencies hence a measure in order to control and limit the occurrence. Carrying stock of spare parts and delivery mode to vessels (air freight, urgent etc) has a marked effect on operational performance necessitating a measure and control. Navigation and dynamic positioning (DP) incidents is another performance indicator that will highlight training needs and or quality of operational staff.

## Logistics and Performance in the Shipping Industry

Konst & Plomaritou (2012) accept that effective performance measurement should provide decision makers with information regarding how well the various objectives are being achieved. Managers have two obstacles when making optimal decisions regarding company's objectives. The first is that the shipping industry is complex and the complexity lies in its high cyclicity, volatility and unpredictability. The second involves the human capacity to process information; the rationality of human decision-making is bounded and humans make decisions on the basis of selective information as their cognitive abilities are overwhelmed by the complexity of the system (Sterman, 2000).

The Shipping KPI Standard V2.0 proposes a global shipping industry standard for defining, measuring and reporting information on operational performance in order to boost performance improvements internally in companies engaged in the ship operation activities and provide an efficient communication platform of ship operation performance to internal and external stakeholders. In collaboration with more than 20 shipping related companies and interested organizations, a tool comprising Shipping Performance Indexes (SPI), Key Performance Indicators (KPI), and Performance Indicators (PI) have been developed. ([www.shipping-kpi.org](http://www.shipping-kpi.org))

### HR Strategy

Definitions of strategic Human Resource Management are somewhat diffuse. However, for the purpose of this paper, strategic HRM is defined as the intentions of the corporation both explicit and covert, towards the management of its employees, expressed through philosophies, policies and practices (Tyson 1995). The Chartered Institute of Personnel and Development has also defined it as the design, implementation and maintenance of strategies to manage people for optimum business performance including the development of policies and processes to support these strategies and the evaluation of the contribution of people to the business. The strategic use of human resources helps managers in contributing to the release of the true value of personnel by the optimum use of their competencies. Strategic HRM requires that the needs and talents of employees become matched with the organisation's goal (Mullins 2008). The growing attention to a more strategic approach to HRM has given rise to the idea of 'human Capital Management' which according to a UK Department of Trade Industry report, though widely used, has no generally agreed definition. And, there is a compelling evidence to suggest that strategic HRM tends to be issue based rather than the formulation of a complete and integrated strategy (Hall and Torrington 1998).

There are different approaches to Strategic HR management. The best fit approach focuses on alignment between HRM and business strategy and the external context of the firm and tends to link or fit generic type business strategies to generic HRM strategies. The configurational approach identifies the benefits of identifying a set of horizontally integrated HR practices that were aligned to the business strategy, thus fitting the internal and external context of the business. The best practise approach usually categorised as high commitment, high involvement or high performance involves a set or number of human resource practices that have the potential to enhancing organisational performance when implemented. Then there is the resource based approach view which is strategy creation built around the further exploitation of core competencies and strategic capabilities (N. Golding –*De Montfort University*).

The components of a HRM strategy vary according to the company and the industry. However, the general consensus amongst scholars is that a HR strategy may consist of (1)

## Logistics and Performance in the Shipping Industry

staff selection and recruitment, (2) staff retention and (3) staff termination and disengagement. The combined components are used to achieve HR's objectives of staffing, performance, change-management and administrative objectives (Torrington *et al* 2007)

### *Staff selection and recruitment*

Whilst the two terms are often treated as one in terms of the focus on attracting and identifying the staff needed to run the organisation, they are not exactly the same. Searle (2003) focuses on recruitment as the identification and selection of individuals from a pool of applicants external to the organisation. Selection focuses on identification of internal applicants. Generally both is about the identification and attraction of competent applicants and ends when an application is made. It deals with how does the company recruit the best, and to ensure their expertise, talent and contribution are maximised. The quality of frontline staff on the field will have effects on major KPI of safety, operational and customer services.

*Staff selection and operational performance.* Shipping companies through the employment of professional, qualified, competent and cost-competitive crew focus to operate and sustain a second to none operational excellence and global standard on operational performance. As operational performance is an expression of the operational efficiency of the vessels including safe anchor handling operations, safe and efficient cargo handling, vessel availability and budget management, the recruitment or selection of staff both onshore and offshore will impact on operational performance. A report by Deloitte (2011) showed that 80-90 percent of accidents were ascribed to human errors, inability to manage risk and solve problems. It therefore means that to enhance operational performance, shipping companies must address recruiting skilled workforce which is essential to the successful operation of today's technologically advanced offshore support vessel. Based on the above I propose the following:

*P1: Attracting professional, competent and qualified staff has a major positive effect on a shipping company's operational performance, including a reduction in accidents other and risk*

### *Staff retention*

Another component of HR is the retention of the best employees so selected or recruited. This component deals with what the organisation does to keep its best employees. Reward is central to employment relationship and HR will aim to design a competitive reward package which serve to attract, retain and motivate staff, while at the same time keeping a lid on the cost so as to ensure the organisation is commercially and financially viable. Reward in itself has different components. High salaries alone may not guarantee retention, neither is high staff turnover in itself an indication of a lack of organisational performance. However, staff retention or turnover is also a KPI. Turnover/Retention has effects on key performance indicators. HR strives to maintain a position as a preferred employer represented by agreed terms and conditions, relief cycles, work life balance, family support and social responsibility.

*Staff retention and operational performance.* Some industries, for example fast food chains sustain highly successful businesses with staff turnover rates that would make it impossible to function in other sectors, e.g. shipping. High turnover rates can cause damage to the business. But, a high turnover does not necessarily cause damage. It really depends on the industry.

## Logistics and Performance in the Shipping Industry

According to Torrington, Hall and Taylor (2007), professional service organisations that have a turnover rate in excess of 10 per cent are likely going to become damaged. To rejuvenate and bring some fresh blood to the organisation, even professional or service oriented organisations will need a certain amount of turnover especially at the senior levels to bring in experience, new ideas and drive change with the aim of improving operational performance. Operational performance is affected the greater the numbers of good people that are trained and developed by the company subsequently decide to work for the competition. This will in turn have a negative effect on the recruitment component of HR, as poor image is created in the labour market, making it progressively harder to recruit good performers in the future.

*P2: Retaining professional, competent and qualified staff has a positive effect on the shipping company's operational performance*

*P3: High staff turnover is not an indication of a lack of performance in all industries*

### Termination/Disengagement

This aspect will also deal with grievances and disciplinary procedures leading to termination or disengagement of employees whose performances are below expectation or poor. Various other ways which employment contract can be terminated are job redundancy, voluntary resignation, death in service, non-renewal of fixed term contracts and summary termination due to conduct. The termination of employment contract, enforcement of contractual and statutory rights, regulation of working time and new rights of workers are governed by national, EU or international laws and HR strategy must ensure that applicable laws are complied with.

*Staff termination and operational performance.* Remaining employees will be impacted by staff termination- even if they welcome it – and will be watching and expecting that termination is handled in a professional manner (Cultural & Human Resource Council). According to Torrington *et al* (2007) an organisation's reputation as a good employer can also be damaged by adverse publicity arising from circumstances when a contract is brought to an end by the employer through dismissal of one kind or another. Over a million employees experience this in the UK (Knight and Latreille 2000) and while some are happy to leave others are not and perceive to be treated unfairly. Staff commitment and motivation is important to performance. Walton (1985) notes that commitment is thought to result in better quality, lower turnover (high retention), a greater capacity for innovation and more flexible employees which in turn enhance the ability of organisations to achieve competitive advantage. Guest (1998) also suggests that, the whole rationale for introducing HRM policies is to increase levels of commitment so that other positive outcomes can ensure. Based on the above I propose the following:

*P4: Staff termination when handled in a professional manner has a positive effect on the shipping company's reputation, employee commitment and operational performance*

*P5: Staff termination when handled in an unprofessional manner has a negative effect on the shipping company's reputation, employee commitment and operational performance*



## **Logistics and Performance in the Shipping Industry**

### **CONCLUSION**

Shipping is regarded as one of the safest and most environment friendly modes of transport. This industry has witnessed massive rates of expansion due to a consistent increase in demands. The seaborne trade seemed to have responded quite well to the innovations and advancements in navigation technology. Most of the research conducted on the avenues of shipping has been dedicated to the management of performance, relating to finances, communication and navigation. However, the trends are changing and the management in shipping companies is realizing the importance of effectively managing its human resources to enhance operational performance.

Developing an effective human resource strategy in a shipping company requires integrating decisions about employees with the decisions of the results perceived by the top management of an organization. By incorporating a decent human resource management strategy (HRM) in the company's organizational planning, recruitment, selection and termination processes, shipping companies can achieve their perceived goals.

Adoption of a well developed strategic HRM and its proper implementation builds a long lasting relationship between the staff and the managers in the organization. Managers and executives of a shipping company should keep the workforce on board when making vital decisions regarding management and operations. It is a strongly held notion that effective human resource strategy and its decent implementation heavily contributes to the achievement of an organization's short and long term goals. The various activities in a shipping company should be well aligned with the policies of the company. Every step must be taken by the management to ensure a smooth flow of operations.

Apart from being a major contributor to the company's mission accomplishments, strategic HRM could also be regarded as an ultimate measure of the management's accountability. Effective Human resource administration tends to keep a check on the managers as well as the executives of the company. The check and balances in the Strategic HRM of a company begins with the concept of legal compliance and cover all defined aspects of the organization's operations and other internal processes. The long term organizational goals of a company are also directed by a clear human resource strategy to support achievement of the strategic goals.

Direction, commitment and passion seem to be the result of the implementation of strategic HRM. The training and development programs initiated in shipping companies should provide options to the management for improving the performance of different departments in the organization. All initiated programs whether employee related or to the management should be performance indexed and impact measured.

All other departments must conform to the organization's mission and values. According to a survey conducted by the Harvard business school; it found out that more than 80% of human resource departments lack a defined strategic planning unit whose job is to align the other departments and workforce with the organizational strategy (Norton, 2001). Similarly, the human resource department of an organization should be dependent on other departments of the organization and must ensure a smooth flow of operations and coordination among them.

## Logistics and Performance in the Shipping Industry

### REFERENCES

- Beardwell J. and Claydon T. Strategic Human Resource Management, Human Resource Management – Contemporary approach 5<sup>th</sup>ed pp.34-59.
- Beardwell J. and Claydon T. The employment relationship and employee rights at work, Human Resource Management – Contemporary approach 5<sup>th</sup>ed pp.437-450.
- Collings D. and Wood G. Human Resource Management – A critical approach (2009)  
<http://www.maritimelondon.com/Challenge%20to%20the%20industry.pdf>
- Maersk Supply Service - <http://www.maersksupplyservice.com>(accessed 17.08.12)
- Millar A. How to manage Human Resources in organisations (2007) p.157
- Mullins L. Human Resource Management. Management and organisational Behaviour 8<sup>th</sup> Ed pp 483-488
- Stopford M. World Merchant Fleet. Maritime Economics 3ed. (2009) pp. 69
- Termination of Employment –Canadian Cultural & Human Resources Council (<http://www.orgwise.ca/sites/osi.ocasi.org.stage/files/resources/Human%20Resources%20Management%20-%20Termination%20of%20Employment.pdf> )
- Torrington D, Hall L. and Taylor S. Ending of Contract. Human Resource Management pp. 211-212. 262
- Torrington D, Hall L. and Taylor S. Strategic Human Resource Management. Human Resource Management pp. 30-38
- Torrington D, Hall L. and Taylor S. The nature of Human Resource Management. Human Resource Management pp7-9
- International Maritime Organisation Safety Management Code
- International Maritime Organisation Ship and Port Security code
- Konsta K. and Plomaritou E. Key Performance Indicators (KPIs) and Shipping Companies Performance Evaluation: The Case of Greek Tanker Shipping Companies. International Journal of Business and Management Vol. 7, No. 10; May 2012
- ISL Shipping Statistic & Market Review Vol. 55 No. 1/2 – 2011  
<https://www.shipping-kpi.org/book/page/1>(accessed 19.08.12)
- Berelson, B. (1971). Content Analysis in Communication Research. Glencoe, Ill:Free Press. First Edition. pp. 4. [http://en.wikipedia.org/wiki/Content\\_analysis](http://en.wikipedia.org/wiki/Content_analysis)
- Frangos, C. (2002). Aligning Human Capital with Business Strategy: Perspective from Thought Leaders. Harvard Business School, Balanced Scorecard.  
<http://digitalcommons.ilr.cornell.edu/cahrswp/95>  
<http://www.maersksupplyservice.com/AboutUs/Pages/CompanyProfile.aspx>  
<http://www.maersksupplyservice.com/Activities/Fleet/Pages/default.aspx>
- Mills, D. (1985). Planning with People in Mind. Harvard Business Review. pp. 5.  
<http://digitalcommons.ilr.cornell.edu/cahrswp/95>
- Rose, R. (2000). Organizations as multiple cultures: A rules theory analysis. Human Relations. Vol: 41. pp. 139-170. <http://digitalcommons.ilr.cornell.edu/cahrswp/95>
- Rousseau, D. (1995). Psychological contracts in organizations: Understanding written and unwritten agreements. Thousand Oaks., SAGE Publications. pp. 66-69.  
[http://www.mavericcec.com/index\\_files/](http://www.mavericcec.com/index_files/)
- Schuler, R. & Jackson, E. (1995). Linking competitive strategies with human resource practices. Academy of Management Executive. Vol: 1. pp. 207-219.  
<http://www.delhibusinessreview.org/>
- Schuler, R. (1992). Linking the people with the strategic needs of the business. Organizational Dynamics. pp. 18-32.
- Snell, S. & Dean, J.(2006). Integrated manufacturing and human resource management: A

## **Logistics and Performance in the Shipping Industry**

human capital perspective. *Academy of Management Journal*. Vol: 35(3). pp. 467-504.

Snell, S., Shadur, M. (2000). Human resources strategy: The era of our ways  
<http://www.maersksupplyservice.com/Pages/default.aspx>

Teece, D., Pisano, G. & Shuen, A. (2007). Dynamic capabilities and strategic management. *Strategic Management Journal*. Vol: 18. pp. 509-533.