ISSN: 2248-2451
Volume 9, Number 2, 2025
Journal of Management and Social Science Research

LOGISTICS MANAGEMENT PRACTICES AND MARKETING PERFORMANCE OF OIL AND GAS FIRMS IN RIVERS STATE

D. C. Igani (Ph.D), Ibrahim Abubakar Omokpua & Amadi J.D.D
Email:igani22@gamil.com, Omokpuaabubakar@Gmail.Com
Department of Marketing, Ignatius Ajuru university of Education, Port Harcourt, Rivers State, Nigeria

ABSTRACT

This study examined the relationship between logistics management practices and marketing performance of oil and gas firms in Rivers State. Two objectives, two research questions and two research hypotheses were formulated and tested. The study adopted correlational survey research design. Population of the study comprised of twenty-five (25) oil and gas companies. Data for this study were collected through primary data source; the questionnaire was the instrument used in collecting primary data. A total of two hundred and fifty copies of the questionnaire were distributed in a frame of 10 copies per firm. Reliability analysis was performed on the data using the Cronbach Alpha coefficient and it stood at 0.98. The data collected for the study were analyzed through descriptive and inferential statistics. The Pearson Product Moment Correlation was adopted. The findings revealed a significant relationship between inventory management and marketing performance of oil and gas firms. Again, findings revealed a significant relationship between storage management and marketing performance of oil and gas firms. The study concludes that logistics management practice is a precursor to marketing performance of oil and gas firms in Rivers State. The study recommends that oil and gas firms in Rivers State should incorporate transport management, have sufficient inventory or stocks to suit the customer requirements and they should be sensitive in terms of storage management because storage plays a key role in maintaining the value of products in terms of sustaining its quality at the logistics center or warehouse.

Keywords: Logistics Management Practices, Store Management, Inventory Management, Marketing performance, Oil and Gas Firms.

INTRODUCTION

Background of the Study

Rivers state, located in the Niger Delta region of Nigeria, is a prominent hub for oil and gas activities, hosting major exploration, production, and transportation operations (Adegbulugbe & Adenikinju, 2012). The oil and gas sector plays a pivotal role in the state's economy, contributing to revenue generation and employment opportunities. The oil and gas industry is characterized by complex supply chain operations involving the exploration, extraction, transportation, and distribution of petroleum products and natural gas. Logistics management plays a critical role in ensuring the smooth flow of materials, equipment, and personnel within this sector, directly impacting marketing performance and competitiveness. Logistics encompasses the management of resources, information, and activities involved in the supply chain process, including procurement, transportation, storage, and distribution (Christopher, 2016).

Logistics management is essential for supporting the complex supply chain requirements of the oil and gas industry (Varsei & Hafezi, 2017). Logistics practices facilitate the timely and cost-efficient movement of equipment, materials, and personnel across various stages of oil and gas operations, from exploration to distribution. In the context of oil and gas, logistics management is essential due to the industry's reliance on timely delivery of equipment and materials to remote and often challenging locations (Mangan et al., 2016).

Research indicates that optimized logistics operations lead to improved supply chain performance and overall business outcomes in the oil and gas sector (Sarkis et al., 2011). Effective logistics

management positively impacts marketing performance in the oil and gas industry (Prajogo & Olhager, 2012). Key aspects include cost reduction through optimized inventory management, enhanced operational efficiency through streamlined transportation, and improved customer satisfaction through reliable delivery of products and services. Despite the recognized importance of logistics in the oil and gas sector, there is a need for empirical studies focusing on specific regions like Rivers state to understand how logistics practices influence marketing performance. This study aims to address this gap by investigating the relationship between logistics management practices and marketing performance indicators among oil and gas firms operating in Rivers state.

Statement of the Problem

The oil and gas industry in Rivers State, Nigeria, is a critical component of the nation's economy, yet it faces significant challenges in achieving optimal marketing performance. Factors such as fluctuating global oil prices, regulatory complexities, and infrastructural deficiencies exacerbate the operational difficulties encountered by firms in this sector. One of the most pressing issues is the inefficiency in logistics management, which directly impacts the overall performance of these organizations.

Logistics management practices are crucial for ensuring the smooth flow of materials, timely delivery of products, and efficient handling of resources. In the context of oil and gas firms, effective logistics management can lead to substantial improvements in operational efficiency, cost reduction, and customer satisfaction. Despite the potential benefits, many firms in Rivers State struggle to implement advanced logistics practices due to a lack of infrastructure, inadequate technological adoption, and insufficient workforce training. This study addresses the problem of poor marketing performance by investigating how enhanced logistics management practices can serve as a catalyst for improvement. Specifically, it examines how storage management, inventory management and transportation optimization can mitigate operational inefficiencies and drive better performance outcomes. The study examined the relationship between logistics management practices and marketing performance of oil and gas firms in Rivers State.

Conceptual Operational Framework

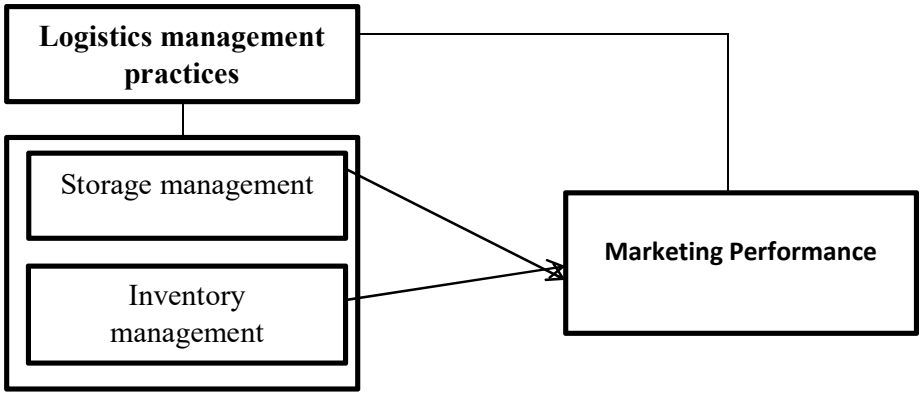

Figure 1.1: conceptual framework showing the relationship between logistics management practices and marketing performance.
Source: Jacobs & Chase (2018); Moses & Richard (2017).

Aim and Objectives of the Study

The aim of this study was to examine the relationship between logistics management practices and marketing performance of oil and gas firms in Rivers State. The specific objectives were to:

i. determine the relationship between storage management and marketing performance of oil and gas firms in Rivers State.

ii. ascertain the relationship between inventory management and marketing performance of oil and gas firms in Rivers State.

Research Questions

To address the objectives of the study, the research questions were raised and answered:

i. What is the relationship between storage management and marketing performance of oil and gas firms in Rivers State?
ii. What is the relationship between inventory management and marketing performance of oil and gas firms in Rivers State?

Research Hypotheses

The following hypotheses were tested:

Ho_1: There is no significant relationship between storage management and marketing performance of oil and gas firms in Rivers State.

Ho_2: There is no significant relationship between inventory management and marketing performance of oil and gas firms in Rivers State.

Review of Related Literature

Concept of Logistics Management Practices

Logistics management is a concept that has attracted several definitions from scholars and corporate bodies. For instance, Laird (2012) defined logistics management as the coordination of all activities that facilitate the movement of goods and materials from one place to another. The Council of Supply Chain Management Professionals in Li (2014) defined logistics operation management as the process of planning, implementing and controlling the efficient, effective flow and storage of goods, services and related information from point of origin to point of consumption for the purpose of conforming to customer requirements. This includes inbound, outbound, internal and external movements and return of materials for environmental purpose. Kanja and Mwangangi (2017) described logistics management as the process of planning and controlling the logistic activities such as storage, material handling, product handling and transportation operations with a view of ensuring that products, materials and people get to their destination in a good and safe condition. Effective management of logistics operations ensures that goods get to its destination without any damage (Ghoumrassi & Tigu, 2017). It also make the goods to be available throughout the marketplace such that a large number of people can buy it (Abassi, 2013). Companies and consumers depend largely on logistics in order to ensure that products are made available in the market. Abbasi (2013) stated that effective management of logistics operations can give a company a competitive advantage over its rivals in the same industry.

Dimensions of Logistics Management

In literature, several dimensions were used to describe logistics management. However, in this study, the focus is on storage management, inventory management and transportation management. These dimensions of logistics management are discussed in details below:

Storage Management

Storage management is a crucial aspect of logistics management (Ravat, 2013). Stock and Lambert (2001) defined storage as the activity of storing goods at logistics center and warehouse. The purpose of storage in logistics operation is to provide a steady supply of goods to the marketplace to fill the temporal gap between producers and consumers (Gill, 2006). Storage plays a key role in maintaining the value of products in terms of sustaining its quality at the logistics center or warehouse. For instance, the storage of perishable food items such as fruits, vegetables and fish has been improved with the advent of refrigerated storage facility and freezer. For instance, the storage of perishable food items such as fruits, vegetables and fish has been improved with the

advent of refrigerated storage facility and freezer (Bartholdi & Hackman, 2008). During transportation process, logistics companies need to make adequate effort to store or preserve these food products in order to deliver them in a good condition by the time they arrive at their destination (Kanja & Mwangangi, 2017). However, a logistics company can optimize its inventories by lowering its stock in inventory and increase inventory turnover rate (Gill, 2006).

Inventory Management

Stevenson (2009) defines an inventory as a stock or store of goods. The objective of inventory management is to determine and maintain the lowest inventory levels possible that will meet the customer service policy stipulated in the customer service policy (Ensermu, 2013). Either way, any company that sells goods likely has the material necessary to sell their products as well as finished products on hand. Inventory management according to Kotler (2000) inventory management involves maintaining sufficient inventory or stocks to suit the customer requirements. Here, there is a trade-off between maintaining too little and too much inventory. With too little stock, there is a risk that the organization may not have the desired goods when the customer needs it. On the other hand, too much stock results in very high inventory carrying costs and stock obsolescence. As such both these aspects need to be delicately balanced. Many organizations today have reduced their inventory carrying costs by adopting just- in-time logistics systems which enable the organization to carry stocks for as little as 3 to 5 days of operations. New stock arrives just when needed, rather than being in the warehouse for a long time. This system however, requires accurate forecasting along with fast, frequent and flexible delivery schedules. According to Hedrick (2008) stocks must be well managed in order to increase profits and many small businesses cannot take up the types of losses arising from poor inventory management. Obviously, inventory management is vital to business and logistics success. Without proper inventory management, a company can miss potential sales or can lock up too much money in the inventory and miss other opportunities to make money.

Marketing performance

Due to the competitive and dynamic nature of today's business environment, firms compare their performance against rivals. Since successful development of any organization in the present day world is conditioned by flexible reaction on different requirements, it has become necessary to evaluate business performance and try to increase it. Performance in this sense means a business parameter that defines the size, strength, activity, proactiveness, competitive aggressiveness, autonomy and success of an organization (Cooper, et., al., 2013). According to Fugate, et., al., (2010), performance is a word that indicates an economy, industry or company's ability to achieve certain results comparable, on the basis of certain given criteria with the results of other units which are expressible in positive terms. The Oxford learners Dictionary (2010) define performance as an act of performing; of doing something using Knowledge as distinct from merely possessing it and any recognized achievement. Performance can refer to either the 'ends' (results) or the 'means' (actions) that gave birth to the ends. Business Performance helps firms in determining the relationship between organizations' marketing activities and its performance. Business performance is significant to business as it seeks to ensure what the customers' desires are and then directs resources towards fulfilling those needs. Ogonu and Mac-Kingsley (2016) emphasize that business performance embraces a broad spectrum of activities ranging from effectiveness of firms in achieving their goals.

Theoretical Review

The study was anchored on The Coordination Theory

The coordination theory is a body of principles about how activities can be coordinated, that is, about how actors can work together harmoniously (Hewitt, 1986). There are theories, concepts, and results from many different fields that could both contribute to and benefit from the

development of such general theories. For instance, it is clear that questions about how people coordinate their activities are central to parts of organization theory, sociology, social psychology, anthropology, linguistics, law, and political science. Important parts of economics and management science also analyze how people can coordinate their work with a special focus on rational ways of allocating resources Miller et. al., (1988). Smith (1981) explains that in the coordination theory, the common problems have to do with coordination: How can overall goals be subdivided into actions? How can resources be allocated among different actors? How can information be shared among different actors to help achieve the overall goals? In its attempts to find generalizations that apply across disciplines and across levels of analysis, coordination theory resembles earlier work on systems theory and cybernetics. Many researchers agree that the major components of coordination include goals, activities, actors and interdependencies Huberman, (1988).

It is worth noting that Logistics management involves fulfilment of various organizational goals, by performing several activities (inbound logistics, outbound logistics, warehousing, distribution, materials handling, etc) so as to serve the customers profitably. Such logistics activities are interdependent and they have to be well coordinated for the firm to succeed.

Empirical Review

Some related empirical studies have been conducted on logistics management and food supply stability. For instance, Ghoumrassi and Tigu (2017) empirically examined the impact of logistics management on customer satisfaction. Their study adopted the descriptive survey research design and used a structured questionnaire to obtain data from logistics managers and customers in India. The data collected were analyzed statistically using descriptive statistics such as percentage and frequency tables, mean and standard deviation and influential statistics such as regression analysis, Pearson Correlation Coefficient and SPSS software program. The findings revealed that India customers are satisfied with logistic company that delivers their goods on the scheduled time and in a good and perfect condition. The study concluded that effective logistics management significantly correlate to customer satisfaction.

Kanja and Mwangangi (2017) examined the influence of logistics management on supply chain performance in retail chain stores in Kenya. Their study adopted the positivism research philosophy and the descriptive survey research design. The researchers collected their data from managers in Nakumatt Holdings Limited using a structured questionnaire. After analyzing the data collected using mean and standard deviation, percentage and frequency tables and regression analysis, the researchers found out that logistics management has a significant positive relationship with profitability of retail chain stores. The study found a significant relationship between logistics management and sales growth of retail chain stores. The study concluded that effective logistics management is a strong and significant predictor of supply chain performance in retail chain stores in Kenya.

Odoom (2012) examined the impact of logistics and supply chain management on hotel performance in Swiss. Their study adopted the survey research design where data were collected from managers of hotel firms. The researcher used a structured questionnaire to obtain data from the respondents and apply the mean, standard deviation, Pearson Correlation and regression analysis for data analysis. The findings showed that logistics management has significant relationship with the effective service delivery of hotel firms in Swiss. The study also revealed that logistics management significantly related to the profitability of hotel firms. The study concluded that logistics and supply chain management significantly improve the performance of hotel firms in Swiss.

Laird (2012) carried out a study to determine the influence of logistics management on firm's efficiency. Their study adopted the survey research design where data were collected from managers of logistics companies in UK. The researchers used a structured questionnaire as their instrument for data collection while the percentage and frequency tables, mean, standard deviation and Pearson Product Moment Correlation for data analysis. The finding showed that effective

logistics management significantly improve the efficiency of logistics firms in UK. The study also revealed that effective logistics management significantly correlate to quick service delivery.
Umair et al (2019) explored the impact of logistics management on customer satisfaction. The researchers used inventory, lead time and transportation as their dimensions of logistics management and correlate each of them to customer satisfaction. Their study adopted the cross-sectional and descriptive survey research design where a structured questionnaire was used to collect data from 200 stores owners in the twin cities of Islamabad and Rawalpindi. The data collected were analyzed using descriptive statistics such as percentage and frequency tables, mean and standard deviation while the hypotheses were tested using the correlation coefficient, regression analysis and SPSS. After analyzing the data collected, the researchers found out that inventory, lead time and transportation have significant positive effect on customer satisfaction in Islamabad and Rawalpindi. The study concluded that logistics management has significant impact on customer satisfaction in Islamabad and Rawalpindi.

METHODOLOGY

The study adopted correlational survey research design. Population is used in research and statistics to represent the entity to be investigated.
Population of the study constitutes the elements within the study unit. Therefore, the population of the study comprised of twenty-five (25) oil and gas companies. The population was obtained from https://infoguidenigeria.com/oil-and-gas-companies/.

Data Analyses

Research Question : (1)
what is the relationship between storage management and marketing performance of oil and gas firms in Rivers State.

Test of Hypothesis one (1)
Ho_1: There is no significant relationship between storage management and marketing performance of oil and gas firms in Rivers State.

Correlations

			storage management	marketing performance
Pearson (r)	storage management	Correlation Coefficient	1.000	.738*
		Sig. (2-tailed)	.	.037
		N	230	230
	marketing performance	Correlation Coefficient	.738*	1.000
		Sig. (2-tailed)	.037	.
		N	230	230

*. Correlation is significant at the 0.05 level (2-tailed).

SPSS output, 2025.
The output analyzed the extent to which storage management and marketing performance of Oil and gas firms in Rivers State. Pearson correlation co-efficient indicates a strong association between the two variables (pr =0.738).The test of significance indicates that with P 0.037< 0.05 we reject the null hypothesis which states that there is no significant relationship between storage management and marketing performance. Thus, a higher level of storage management was associated with higher levels of marketing performance of Oil and gas firms in Rivers State.

Research Question : **(2)**
what is the relationship between inventory management and marketing performance of oil and gas firms in Rivers State.

Test of Hypothesis Two (2)

Ho_2: There is no significant relationship between inventory management and marketing performance of oil and gas firms in Rivers State.

Correlations

			inventory management	marketing performance
Pearson (r)	inventory management	Correlation Coefficient	1.000	.908*
		Sig. (2-tailed)	.	.033
		N	230	230
	marketing performance	Correlation Coefficient	.908*	1.000
		Sig. (2-tailed)	.033	.
		N	230	230

*. Correlation is significant at the 0.05 level (2-tailed).

SPSS output, 2025.

The output analyzed the extent to which inventory management relate with marketing performance of Oil and gas firms in Rivers State. Pearson correlation co-efficient indicates a strong association between the two variables (Rs=0.908).The test of significance indicates that with P 0.33< 0.05 we can reject the null hypothesis which states that there is no significant relationship between inventory management and marketing performance of Oil and gas firms in Rivers State. Thus, higher levels of inventory management were associated with higher levels of marketing performance of Oil and gas firms in Rivers State.

Summary of Findings

i. There is a significant relationship between storage management and marketing performance of oil and gas firms in Rivers State.
ii. There is a significant relationship between inventory management and marketing performance of oil and gas firms in Rivers State.

Findings

From the analysis, it was discovered that there is a significant relationship between storage management and marketing performance of oil and gas firms in Rivers State. This finding was supported by the study of Kanja and Mwangangi (2017) who examined the influence of logistics management on supply chain performance in retail chain stores in Kenya. After analyzing the data collected using mean and standard deviation, percentage and frequency tables and regression analysis, the researchers found out that logistics management has a significant positive relationship with profitability of retail chain stores.

Again, it was discovered that there is a significant relationship between inventory management and marketing performance of oil and gas firms in Rivers State. This finding was supported by the study of Umair et al (2019) who explored the impact of logistics management on customer satisfaction. The researchers used inventory, lead time and transportation as their dimensions of logistics management and correlate each of them to customer satisfaction. The data collected were analyzed using descriptive statistics such as percentage and frequency tables, mean and standard deviation while the hypotheses were tested using the correlation coefficient, regression analysis and SPSS. After analyzing the data collected, the researchers found out that inventory, lead time and transportation have significant positive effect on customer satisfaction in Islamabad and Rawalpindi.

CONCLUSION

We concluded that there is a significant relationship between inventory management and marketing performance of oil and gas firms in Rivers State.

RECOMMENDATIONS

Based on the result and conclusion made, the following recommendations were made:

i. Oil and gas firms in Rivers State should have sufficient inventory or stocks to suit the customer requirements because with too little stock, there is a risk that the organization may not have the desired goods when the customer needs it.
ii. The management should be sensitive in terms of storage management because storage plays a key role in maintaining the value of products in terms of sustaining its quality at the logistics center or warehouse.

REFERENCES

Abbasi, M.N. (2013). Sustainable logistic operations: A study of leading MNC from FMCG Sector of Pakistan. *Pakistan Journal of Social Sciences*, 33 (1), 409-420.

Abdul, F. A., Iortimbir, A. I., Oladipo, G. T. & Olota, O. O. (2019). Impact of logistics management on marketing performance (A case study of Dangote Flour Mills Plc, Nigeria). *Journal of Sustainable Development in Africa, 21*(1), 36-49

Abdulsalami, O. (2020). Strategies for increasing food production and food security in Nigeria. https://www.crop2cash.com.ng/blog/strategies-for-increasing-food-production-and-food-security-in-nigeria/

Adegbulugbe, A., & Adenikinju, A. (2012). The oil economy and the challenge of sustainable development in Nigeria. *OPEC Energy Review, 36*(3), 304-334.

Attah, A.W. (2012). Food security in Nigeria: The role of peasant farmers in Nigeria. *African Research Review*, *6* (4), 173-190.

Babatunde, R. & Oyatoye, E. (2006). Food security and marketing problems in Nigeria: The case of maize marketing in Kware State. Retrieved from: http://citeseerx.ist.psu.edu/viewdoc/

Bartholdi, J. J. & Hackman, S. T. (2008). *Warehouse and distribution science*. Supply Chain & Logistics Institute, School of Industrial & Systems Engineering. USA.

Cheaitou, A. & Cariou, P. (2012). Liner shipping service optimization with reefer containers capacity: An application to northern Europe-South America trade. *Maritime Policy & Management*, *39* (6), 589–602.

Chopra, S. (2010). *Supply chain management: Strategy, planning and operation*. Pearson Publications.

Christiansen, M., Fagerholt, K., Nygreen, B. & Ronen, D. (2013). Ship routing and scheduling in the new millennium. *European Journal of Operational Research*, *228* (3), 467–483, 2013.

Christopher, M. (2016). *Logistics & supply chain management*. Pearson UK.

Cooper, M.C., Lambert, D.M. & Pagh, J.D. (2013). Supply chain management: More than a new name for logistics. *International Journal of Logistics Management, 8* (1), 57-69

Erdogan, S. & Miller-Hooks, E. (2012). A green vehicle routing problem. *Logistics and Transportation Review*, *48* (1), 100-114.

Fasoyiro, S.B. & Taiwo, K.A. (2012). Strategies for increasing food production and food security in Nigeria. *Journal of Food and Agricultural Information*, *13,* 338-355.

Fugate, B. S., Mentzer, J. T. & Stank, T. P. (2010). Logistics performance: Efficiency, effectiveness, and differentiation. *Journal of Business Logistics, 31*, 43-61.

Ghoumrassi, A. & Tigu, G. (2017). The impact of the logistics management in customer satisfaction. Proceedings of the 11th International Conference on Business Excellence, https://doi.org/10.1515/picbe-2017-0031.

Gill, R. (2006). Fast methods for warehouse optimization. *Progressive Distributor Journal*, *4* (2), 56-68.

Huberman, B. (1988). *The Ecology of Competition,* Amsterdam, North-Holland

Kanja, D.W. & Mwangangi, P. (2017) Influence of logistics management on supply chain performance in retail chain stores in Kenya: A case of Nakumatt Holdings Limited. *Strategic Journal of Business & Change Management*, *4,* 425-444.

Karsten, C.V., Brouer, B. D., Desaulniers, G. & Pisinger, D. (2017). Time constrained liner shipping network design. *Logistics and Transportation Review*, *105* (1), 152–162.

Kotler, P. (2000). *Marketing management millenium edition, 10th edition:* Pearson Prentice Hall.

Laird, M. (2012). Logistics management: Firm's efficiency performance model. Unpublished BBA Thesis, Ohio University, Athens.

Li, X. (2014). Operations management of logistics and supply chain: Issues and directions. Discrete Dynamics in Nature and Society. http://dx.doi.org/10.1155/2014/701938.

Mangan, J., (2016). *Global logistics and supply chain management*. John Wiley & Sons.

Miller, M. S. (1988), *Agoric Open Systems,* Amsterdam, North-Holland

Odoom, C.K. (2012). Logistics and supply chain management in the hotel industry: Impact on hotel performance in service delivery. *Journal of Supply Chain Management and Logistics Operations*, *23* (2), 255-267.

Ogonu, G.C. & Mac-Kingsley, I. (2016). The effects of inventory management on customer satisfaction: Evidence from the supermarket industry of Nigeria. *International Journal of Marketing and Communication Studies, 1*, 37-58.

Prajogo, D. I., & Olhager, J. (2012). Supply chain integration and performance: The effects of long-term relationships, information technology and sharing, and logistics integration. *International Journal of Production Economics, 135*(1), 514-522.

Sarkis, J., et al. (2011). Green supply chain performance metrics and indices. *Journal of Cleaner Production, 19*(6-7), 661-671.

Umair, A.S., Zhang, W., Han, Z. & Haq, S. (2019). Impact of logistics management on customer satisfaction: A case of retail stores of Islamabad and Rawalpindi. *American Journal of Industrial and Business Management*, *9* (8), 1723-1752

Varsei, M., & Hafezi, M. H. (2017). A comprehensive review of the literature on oil and gas logistics. *Journal of Natural Gas Science and Engineering, 37*, 34-58.

Wang, H., Wang, S. & Meng, Q. (2014). Simultaneous optimization of schedule coordination and cargo allocation for liner container shipping networks. *Logistics and Transportation Review*, *70* (2), 261–273.

Zhang, J. & Zheng, L. (2010). Research on the building of green logistics system and the development strategy in Jilin Province. International Conference on Logistics Engineering and Management, American Society of Civil Engineer, Chengdu, China.