



A STUDY ON LOGISTICS OPERATIONS WITH REFERENCE TO SELECTED LOGISTICS OPERATORS

Salman Ahmed Yusuf Aljawder

MBA Student, AMA International University Bahrain

Email: salmanbinjawder@hotmail.com

DR.Mary Benitta Rani

Assistant Professor In Finance, AMA International University Bahrian

Email: mbajegan@amaiu.edu.bh

ABSTRACT

Logistics operations environment has direct implications on international trade and development. In many countries, however, government institutions do not regulate logistics services as if they were part of a singular sector, but rather through disjointed regulatory frameworks. This hinders the provision of adequate logistics services and, consequently, has an impact on greater trade expansion. Operational strategy is an essential process in many organizations regardless of size, nature or type. However, differences in decision-making process are existing due to the variety of situation, These studies identified the role of Bahrain and its wise government in the field of logistics, the import and export application in order to enhance the quality of services and accessibility by establishing the portal of e-Government as an important example that leads to the vision of Bahrain 2030. Logistics operations mainly involved in inbound and outbound materials. Parts supplies and finished products. Particularly logistics companies are working functional basis of Purchasing, transportation and storage and further in case of channels basis the logistics operators are operating in pre production. This study aims to investigate and assess the logistics operators of the selected companies. In the current research the researcher applied the quantitative method and has investigated 75 respondents from three different logistics operators .The results of this study will serve the information needed by the different firms such as Business Leaders in Bahrain, Government of Kingdom of Bahrain, Business Resources, Businessmen/ Importers and Exporters. Managers the key purpose of the study was to measure the effect of the customer's types along with suppliers, competitors, regulations, economy and technology on the prohibitions, regulation, security in the kingdom of Bahrain. The result of this will contribute the success factors in the Logistics operational management in e-business services for improvement and implementation of channels and customer services.The research based on The IPO model which is a systems theory, as it rests on the assumption that a team is more than one-to-one relationships between variables, For the researcher who would like to further explore the vast opportunity for discovering more about how to manage in logistics and supply chain management, duplicating the research in particular industry and business sector, this current research can become an important input for further studies.

Keywords: logistics, supply chain, prohibitions, regulation, security.

Introduction and Literature Review

Bahrain has got a very strategic position as it is in the mid of Arabian Gulf and it has the perfect position to tie up with countries from the east and west, even it could tie up the countries in the south and north within the region. The important duty under logistics operations is the geographical positioning of raw materials work – in progress and finished inventories when required to the lowest cost as possible. This study aims to assess all the user of logistics operations as a company enterprise will cut cost the expenses. The main problem the research will discuss is the impact of logistics operation companies in the Kingdom of Bahrain along with prohibitions and restrictions, regulations and trade policies, security, trade facilitations in efficiency and effectiveness.

Liberal trade and investment policies have helped Bahrain to maintain stable economic growth for much of the period since the 1980s and allowed some diversification into non-energy related economic activities. The logistics industry is undergoing rapid transformation, especially in gulf countries, have yet to appreciate the effects of these developments and respond with appropriate policies. The regulatory environment governing logistics placed different policies. Applying the prohibitions and restrictions, trade policy, security and trade facilitating in logistics Operation Company have strong dominance for the success of the logistics operators in the country.(TRADE POLICY REVIEWS2000)This could help in improving the economy and make advantage of the great position to make investors happy and willing to invest in the Kingdom.

This study intends to assess the operational strategy on logistics services in the Kingdom of Bahrain, this study sought to answer the following questions:

1. What are the respondent's perceptions in assessing the logistic operation companies in the Kingdom of Bahrain along with prohibitions and restrictions, regulations and trade policies, security, trade facilitations?
2. How effective are the logistic operation companies in the Kingdom of Bahrain along with prohibitions and restrictions, regulations and trade policies and security and trade facilitations?
3. What are the barriers and challenges encountered by the respondents in the logistic operation companies in the Kingdom of Bahrain?
4. What are the remedial measures to improve and implement the on-logistic companies in the Kingdom of Bahrain?

The main objective of the this study is to determine the significance, benefits of employing logistics operations and citation content analysis in conducting of an effective management of selected companies.

The study had fully tested its assumptions based on the hypothesis which is derived from the above objectives, these objective are restated in the study questions which are translated into the following hypothesis.

H1: There is no significant relationship between respondent's perceptions about prohibitions and restrictions, trade policy, security and trade facilitating in logistics Operation Company and effectiveness of the logistics operations companies in the kingdom of Bahrain along with prohibitions and restrictions, regulations and trade policies and security and trade facilitations

Literature Review

Ratapol Wudhikarnet al. (2018) discuss about the logistics operations today requires a comprehensive set of performance indicators that measure both tangible assets and intellectual capital (IC) of organizations. Therefore, to explore and identify an opportunity for improvement, this study reviews the academic literature related to IC measures in logistics management. The key contribution of this review is that it addresses the following gaps in the literature: the limited adoption of comprehensive IC methods in logistics studies underdevelopment of specific indicators and measures used; failure to consider all human capital as well as renewal and development elements; and, finally, lack of academic research considering the influences among the different IC elements and logistics and financial performance.

Zaborowski et al (2019) cited about the IT tools used in the management enterprises that this modern tools in information technology solution that include in logistics application in order to diversified business profiles of the company. This will focus on the inventory management and minimization of cost and productivity of the enterprise, in improving relationships with partners and the quality of the company's operations and productivity.

Boile Maria et al (2019) study about the advance solution of efficient logistics operations in urban areas that will address both static and dynamic decision making in the company and network level. This will generate the most efficient in scheduling and routing decisions.

Punyapon Tepprasit and Natsapan Paopan, (2016) cited about the relationship among the reverse logistics operations and the forward logistics operations, This research also study about the information technology, corporate citizenship, logistics performance and using structural equation modeling. The concept also is to help to increase the efficiency and effectiveness of reverse logistics.

Chih Yang, Shu-Ling Chen(2016) From a logistics perspective , this paper discusses global logistics hub port evaluation requirements and contrasts the competitiveness of three major international hub ports in Northeast Asia, namely the ports of Busan, Tokyo, and Kaohsiung, using a hybrid multi-criteria decision-making methodology that combines the method of analytical hierarchy (AHP) and gray relational analysis (GRA). Under the five aspects of the political-economic environment, operational environment, expense environment, infrastructure facility environment, and preferential opportunity environment, a total of 20 evaluation requirements are obtained. The findings of the AHP reveal that the top five measurement factors are shipping and storage prices, ease of customs clearance processes, harbor and stevedoring costs, land costs and soundness of the expenditure and reward system from the viewpoint of all respondents.

Indra et al (2019) mentioned about the service quality that the most important aspect in the competitiveness in the enterprise. Companies in the logistics are implementing quality management systems in order to ensure the quality of the services given to them.

According to Ocicka, Barbara and Wieteska, Grażyna, (2017) mentioned about the logistics and supply chains today. Challenges on the managers who continuous searching for new innovative methods that will support in logistics operation especially in economic, social and environmental. They also discuss about the positive impact of building and development of collaborative relationship between business partners as well in the potential market rivals.

Bajdor, et al., (2017) cited about the important factors determining the company's success in the dynamics market. That cooperation can also be used as capital that can influence company management in terms of collaboration in getting information's through company's logistics cooperation.

According to Marta, (2016) she studies about the analysis of macro- environmental along with the strategic, tactical and operational development. On the study her aims is to analyze the impact of macro-environmental factors on selected company on management logistics service offering courier services.

Kramarz et al (2018) study about increase of implementing public services to create a prospect in using logistics management. It focus on the problems of public networks, however the direction of this research is about researching logistics operations in public networks that will specifically determined how to developed map of the relations in model of public institution sub network.

Garcia et al (2015) stated that an effective logistics system is a strategic objective in any productive business. However customer helps to develop satisfactions that will adopt by other company's growth. Profitability analysis is based on a considerable reduction in the total logistics costs. In the Improvement in the company's competitiveness and profit.

Yaw Agyabeng-Mensah, (2020), In their research they have examined the direct influence of green logistics management practices on environmental, social, market and financial performance. The study investigation reveals that the adoption of green logistics management practices has little influence on improving the social welfare and health of the society and employees.

Hu W, Dong J,(2019)The presence of logistics facilities has a significant effect not only on the operations of the transportation of urban goods, but also on the urban climate, as these facilities are the primary originators and receivers of freight. The logistics sprawl phenomena, i.e. the transfer of logistics facilities from inner urban areas to suburban areas, has recently gained growing interest from scholars and decision makers alike .A comprehensive taxonomy of the impacts is given in this article, a literature analysis of the different impacts of logistics sprawl. It was found that logistics sprawl related to improvements in urban freight geography, raised the distance traveled by trucks and consequent pollution, and disrupted the commuting of logistics workers.

SuleÖnseleKici, ÖzgürKabak, FüsünÜlengin,(2016),The capacity of a nation to trade internationally depends to a large degree on the access of merchants to effective logistics networks. In particular, the success of logistics networks relies on government services, investment, and strategy. The fields where governments play an important role are the building of roads, the establishment of a regulatory regime for transport services and the creation and execution of effective customs clearance procedures. One of the national-level indicators for logistics efficiency. This thesis suggests that a close relationship exists between global competition and a country's logistical performance and analyzes the validity of these relationships using the approach of an artificial neural network (ANN) and accumulated belief degrees (CBD). To this end, a screening process is initially carried out in order to classify the productivity metrics of the World Economic Forum that could have an effect on any of the LPI indicators. Subsequently, the competitiveness connection

El Baz, J. and Laguir, I. (2017) in his study "Third party logistics - from an inter organizational point of view" says that the adoption of third party logistics is becoming widespread in the industry. A theoretical framework is then developed to explain the role and motivation for this development. Transaction cost analysis (TCA) explains the conditions under which third party agreements become preferable to the classical choice between market and hierarchy. Network theory explains the dynamics in third party cooperations. Three specific cases of third party logistics are included and analyzed on the bases of the theoretical framework. It concludes that third party logistics are not merely a means to cost efficiency, but also as a strategic tool for creating competitive advantage through increased service and flexibility. Furthermore, the discussion points to the importance of investment in human resources and change in attitudes as part of the success of the third party arrangements.

Data Analysis

Table 1.1 Reliability Statistics

Variable	Cronbach's Alpha	No of Items
Prohibitions and Restrictions	0.870	15
Regulations and Trade Policy	0.922	15
security and trade facilitating	0.805	15

Table 1.1 outlines the reliability statistics for the survey conducted. There were 30 questions listed in the survey divided over 4 variables and mostly utilizing a Likert scale. The internal consistency of the two sections of the satisfaction questionnaire was satisfactory. Cronbach's alpha for logistics operation effectiveness, Prohibitions and Restrictions Regulations and Trade Policy, security and trade facilitating were all above the acceptable limit of 0.7.

Table 1.2 Descriptive Statistics

	Mean	Std. Deviation	N
Effective are the logistics operations	3.9859	.72919	75
Prohibitions and Restrictions	3.8601	.65812	75
Regulations and Trade Policy	1.8996	.16790	75
security and trade facilitating	4.1187	.57418	75

Table 1.2 shows that the mean of the Effective are the logistics operations variable is 3.985, with a standard deviation of 0.729, indicating mostly effective. The responses also don't appear to be very polarized as indicated by the relatively low standard deviation.

For the independent variables, the mean of the Prohibitions and Restrictions variable is 3.860, with a standard deviation of 0.6581. This indicates that Regulations and Trade Policy has impact on

effectiveness, also since we used a five-point Likert scale, the low standard deviation indicates that most responses are within 0.6581 points around the mean.

For the Regulations and Trade Policy variable, we found a mean of 1.899, with a standard deviation of 0.1679. The mean shows a positive outlook towards the Variable; again standard deviation is very low and indicates that there are very little variability in the views held by the respondents.

The mean of the security and trade facilitating variable is 4.118, with a standard deviation of 0.6136. This is also similar to the findings for the Regulations and Trade Policy, still indicating that security and trade facilitating with very little variability around the mean. From the above findings, it can be inferred that the three variables considered as major reason to gain effectiveness of the logistics operations

Table 1.3 Hypotheses Testing

	Operation Effectiveness	Prohibitions and Restrictions	Prohibitions and Restrictions	Prohibitions and Restrictions
	1.000			
Prohibitions and Restrictions	0.615	1.000		
Regulations and Trade Policy	0.445	0.327	1.000	
security and trade facilitating	0.597	0.679	0.384	1.000

So as to identify the relationship between the two variables of the study: Prohibition and Restriction, Regulations and Trade policy, and security and trade facilitating and with the operations effectiveness the researcher make use of Pearson Correlations.

Table 1.3, To answer the research question two the Pearson Correlations have been applied and he result shows that there is a positive correlation between the Prohibitions and Restrictions and Operation Effectiveness equal to 61.5%. This indicates that there is a fairly strong linear relationship between the Prohibitions and Restrictions and Operation Effectiveness. A similar conclusion can be made between Regulations and Trade Policy and Operation Effectiveness which also show a positive correlation equal to 59.7% very close to the one indicated by the Prohibitions and Restrictions.

The findings also show that there is a positive correlation between security and trade facilitating and Operation Effectiveness equal to 44.5%.

Based on this we can conclude that the dependent variable is positively correlated with all the independent variables with moderate to strong relationships. All findings were also found to be statistically significant with a P- value less than 0.05 allowing for the rejection of the null hypothesis.

Table 1.4 Descriptive statistic

R	R Square	Adjusted R Square	Std. Error of the Estimate	ChangeStatistics				
				R Square Change	F Change	df1	df2	Sig. F Change
0.754 ^a	0.569	0.563	0.48212	0.569	91.770	4	278	0.000

- a. Predictors: (constant), Prohibitions and Restrictions, Regulations and Trade Policy, security and trade facilitating
- b. Dependent Variable: Operation Effectiveness

The study further carried out a regression analysis to establish the statistical significance relationship between the independent variables, “), Prohibitions and Restrictions, Regulations and Trade, security and trade facilitating and the dependent variable, Operation Effectiveness. Table 4.4 shows value of R equals to 0.754, this value indicates a good level of prediction with the effectiveness of logistics operation. Where the value of the R Square (the coefficient of determination) is equal to 0.569, which shows that 57% of the variation in the Operation Effectiveness is explained by the above-mentioned variables, while 43% is explained by other factors.

Table 1.5 ANOVA Table

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	85.325	4	21.331	91.770	0.000 ^b
Residual	64.619	278	.232		
Total	149.943	282			

- a. Predictors: (constant), Prohibitions and Restrictions, Regulations and Trade Policy, security, and trade facilitating
- b. Dependent Variable: Operation Effectiveness

The regression analysis results were presented using regression model summary tables, analysis of variance (ANOVA) table and beta coefficient tables. In Table 1.5, the sum of squares of The Independent factors is equal to 85.325, where the sum of squares of other factors in Operation Effectiveness is 64.619. The difference between the two values (F-ratio) in the one-way ANOVA table is equal to 91.770, which indicates that the independent variables listed above are capable of predicting the Operation Effectiveness dependent variable. The findings were statistically significant with a p-value less than 0.05.

Conclusion and Recommendation

These studies identified the role of Bahrain and its wise government in the field of logistics, the import and export application in order to enhance the quality of services and accessibility by establishing the portal of e-Government as an important example that leads to the vision of Bahrain 2030.

These studies explained to the researcher the idea behind this study and linking the role logistics and supply chains today. Challenges on the managers who continuous searching for new innovative methods that will support in logistics operations especially in economic, social and environmental. They also discuss about the positive impact of building and development of collaborative relationship between business partners as well in the potential market rivals.

The studies also highlighted the importance of technology in improving the development and implementation of strategic plans using logistics and chain management and enabling decision-makers to formulate their instructions using various tools such as accurate and qualified reports that also help in devising future expectations to remedy risks underlying causes of the port logistics accidents related to hazardous goods and contribute to the implementation and monitoring of port strategies that will allow for more sustainable and secure development

the key purpose of the study was to measure the effect of the customers types along with suppliers, competitors, regulations, economy and technology on the prohibitions, regulation, security in the kingdom of Bahrain. The result of this will contribute the success factors in the Logistics operational management, The study had fully tested its assumptions based on the hypothesis which is derived from the research objectives, these objective are restated in the study questions, the data collected and analyzed showed that there is significant relationship between perceptions and the level of effectiveness logistics operations of selected companies in the Kingdom of Bahrain.

Recommendations

Through the study investigation the researcher found some important challenges appear in the research area ,specially effectiveness, barriers and challenges encountered by the respondents in the logistics companies in the Kingdom of Bahrain to face this challenges it is recommended to reduce fees and cost

that will be reflected to the consumer Benefit and incentives the policies and regulation suppose to support this point . More over the traffic was the main problem specially the roads around the airport it's very small , it will be effective and useful to find solutions to this problem by increasing facilities and equipments , as appears there is lack of ease of dealing and financial transactions system , and there's gap between logistics companies and government. Government should make everything easier for companies and reduce time by making department the connect between government and companies finally making everything online.

The remedial measures to improve and implement the on logistics companies in the Kingdom of Bahrain are encountered to utilization of technologies and using network telecommunication and application of ideas and awareness of companies on the most important project, Follow the international standards and contracting with institutions and companies specialized in implementing each of the logistical aspects.

References

- Anagnostopoulou, Afroditi, Spyrou, Evangelos, Mitrakos, Dimitrios and Boile, Maria (2019). An advanced solution for efficient logistics operations at both company and network level, *Transportation Planning & Technology*. Vol. 42 Issue 4, (p324-338). 15p.
- Chih Yang, Shu-Ling Chen (2016) Determinants of global logistics hub ports: Comparison of the port development policies of Taiwan, Korea, and Japan, *Transport Policy*, Volume 45, Pages 179-189,
- El Baz, J. and Laguir, I. (2017), "Third-party logistics providers (TPLs) and environmental sustainability practices in developing countries: The case of Morocco", *International Journal of Operations & Production Management*, Vol. 37 No. 10, pp. 1451-1474.
- Gargasas, Audrius, Samuolaitis, Mindaugas and Mūgienė, Indra, (2019) *Quality Management Systems in Logistics Management*., Vol. 41 Issue 2, (p290-304). 15p.
- Hu W, Dong J, Hwang B-g, Ren R, Chen Z. A Scientometrics Review on City Logistics Literature: Research Trends, Advanced Theory and Practice. *Sustainability*. 2019; 11(10):2724. <https://doi.org/10.3390/su11102724>
- Kożuch, B., Kramarz, M., & Sienkiewicz-Małyjurek, K. (2018). The concept of research on logistics management in public networks. *Management Theory and Studies for Rural Business and Infrastructure Development*, 40(4).
- Ocicka, Barbara and Wieteska, Grażyna, (2017) *Haring Economy in Logistics and Supply Chain Management LogForum*. 2017, Vol. 13 Issue 2, p183-193. 11p.
- Punyapon Tepraprasit and Natsapan Paopan, (2016) *The Reverse Logistics operations Model: Thailand Context*. *International Journal of Business & Information*., Vol. 11 Issue 4, p385-403. 19p.
- Ratapol Wudhikarn & Nopasit Chakpitak & Gilles Neubert, 2018. "A literature review on performance measures of logistics management: an intellectual capital perspective," *International Journal of Production Research*, Taylor & Francis Journals, vol. 56(13), pages 4490-4520, July.

Shvartsburg, L., & Zaborowski, T. (2019). EDI system in logistics management of an enterprise. *LogForum*, 15(2).

Sule Önsel Ekici, Özgür Kabak, Füsün Ülengin, Linking to compete: Logistics and global competitiveness interaction, *Transport Policy*, Volume 48, 2016,

Yaw Agyabeng-Mensah, Ebenezer Afum, Esther Ahenkorah, (2020) Exploring financial performance and green logistics management practices: Examining the mediating influences of market, environmental and social performances, *Journal of Cleaner Production*, Volume 258,

© GSJ