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### An Examination on the Relationship between Employees' Recruitment Process and the Performance of Third-Party Logistics Companies

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#### Abstract

This study, therefore, is poised to examine the relationship between employees' recruitment process and the performance of third-party logistics. Data for the study were sourced from both primary and secondary sources. Questionnaire was the instrument for data collection. The study population comprises of thirty-five (35) maritime Third-Party Logistics companies. 300 questionnaire were distributed and 273 were correctly filled and retrieved. The Spearman Correlation statistics was used in analyzing the empirical data. The result shows the correlation value is 0.955. This means that there is a strong positive relationship between recruitment process and third-party logistics in the study area. Given the decision rule, since the P-value < the critical P-value of 0.01, it means that there is a statistically

significant relationship between recruitment process and third-party logistics. Favouritism affects the quality of operations of third-party logistics companies in Nigeria. Hence this study concludes that avoiding favouritism in their recruitment process, is required for an effective and efficient operations of third-party logistics firms in Nigeria. Based on the results of findings, the following recommendations were made: Third party logistics companies should ensure through their Human Resources departments that favouritism is expunged from their recruitment process. Third party logistics companies should ensure proper job descriptions in every aspect of their operations.

**Keywords:** Employees' Relationship, Recruitment Process, Performance, Third-Party Logistics, Favouritism

#### 1. Introduction

Logistics is one of the active operations that enable the connection between production and consumption (Domingues and Macario, 2015) <sup>[6]</sup>. Logistics Glossary view Third Party Logistics (3PL) services as; outsourcing all or part of a business's logistics operations to a specialized company. According to Robinsocited in Vellian, Premkumar, and Veera (2020) <sup>[25]</sup>, the term '3PL' was initially used in the early 1970s with intention to identify intermodal marketing companies in transportation contracts however it has developed in modern days to the point where, every logistics firm that offers some kind of logistics service has been rebranded as a 3PL. The services 3PL provide includes transportation or freight management (including, inventory, warehousing technology, accounting, and services around claims), public fulfilment services, freight consolidation and distribution management. Nadarajah, (2015) <sup>[19]</sup> opined that the services of third-party logistics providers (3PL) were derived from the need of getting another service provider to manage the logistics job of an organizations. It entails assigning key logistics workloads to someone else who can do it in more effective and efficient manner. According to Katana and Gichure (2017) <sup>[13]</sup>, who depict that a third-party provider implies an employer company or maritime agency to focus on core proficiency and outsourced to other smaller firms activities/jobs to get those products or materials transported to the relevant customer/destination. The outsourcing of logistic functions has been a great opportunity for many companies, which cite the operational efficiency, a greater flexibility, an enhanced service level and allowing Employer Company/maritime establishment to focus on their primary business as the main benefits that can be obtained (Wang and Gong, 2014). Considering the views of Darko and Vlachos, (2022) <sup>[4]</sup>, this study argues that global maritime business has increased competition in 3PL operations, and the desire for improved logistics efficiency have compelled 3PL companies to re-examine their operational strategies. A business process that has gained significant importance within contemporary business strategies

is the management of logistics operations. The increasing awareness by companies that a competitive advantage does not only come from product offerings but also through the improvement in delivery processes, employer/employee relationship, has been critical in the evolution of logistics from its old supporting role to a more strategic role in recent times.

The third-party logistics (3PL) industry in Nigeria has sustained its growth in recent years, and is increasing in prominence as a means of coping with rapid changes in the global competitive environment. As a consequence of an increasing trend toward the outsourcing of logistics activities, maritime establishments, shippers and other stakeholders have been faced with an unavoidable need to employ the best suitable 3PL provider. The operational involvement of 3PL providers is significant in reducing logistics costs and fixed logistics assets, improved order fill rates, and shortened average order-cycle lengths and cash-to-cash cycles. If an appropriate 3PL provider is not recruited, problems such as low-quality logistics services and contract failure may arise. This may lead to a damaged reputation and trust of the employer or shipper as the case may be. Hence, the recruitment of a suitable 3PL provider is an important factor that determines the outcome of a logistics activities devoid of challenges, this has also been the view of Soh (2010)<sup>[23]</sup>.

The third-party logistics industry in Nigeria has become one of the most competitive areas of venture where companies go for each other's throat to outdo the competitors who are always found right at the door step to customers. 3PLs are under constant pressure to expand and differentiate their services because of several different directions and strategies that they need to follow in order to be competitive (Maata, and Ombui, 2018)<sup>[17]</sup>. Therefore, it is important, third-party logistics (3PL) providers should not be seen as a mere service provider, but also as strategic partners (Zacharia, Sanders, and Nix, 2011)<sup>[27]</sup>, which makes it essential to have well-defined performance criteria that are continuously monitored to gain recruitment advantage.

It is imperative to note that third party logistics services vary in the maritime industry, it is evident to note that recruiting new 3PL provider, meeting the shippers' specific requirements, and latest trends in third-party logistics were identified as general problems affecting the effective services of 3PL providers, also to note is that these problems affecting the effective operations of 3PLs companies in the maritime industry in Nigeria is significant enough to disrupt the logistics operations of 3PL service providers. This however necessitated the need for this study which is tailored to investigate the relationship between employees' recruitment process and the performance of third-party logistics companies.

The aim of the study is to examine the relationship between employees' recruitment process and the performance of third-party logistics companies. The study tested the following hypotheses at 0.05 alpha level of the null hypothesis which is state that, there is no statistically significant relationship between employees' recruitment process and the performance of third-party logistics companies.

Findings from this study and relevant recommendations will be a viable solution to the issue on emphasize on the importance of employee recruitment process of third-party logistics, and positive outcome from employee / employer

relationship. Also, the findings of this study will be relevant to consultants and researchers to understand the problems encountered by third-party logistics companies in the maritime industry. The study shall help to influence the decisions of policy makers in addressing the challenges that hinder the effective and optimum performance of third-party logistics companies in Nigeria. Finally, the main beneficiary of this study are maritime establishments (employers/agencies) who hire many third-party logistics companies across maritime corridors in Nigeria. Third-party logistics companies will significantly benefit from the study as they can apply heuristic framework variables to maintain standard operational procedures in recruitment process as third-party logistics providers.

The study centered on third-party logistics firms operating in the maritime industry across the major maritime corridors in Nigeria. The major subject of interest is on examining the third-party logistics companies in relation to their employers / employee relationship, impact of third-party logistics companies recruitment process, amongst other interested variables. The study is limited to third-party logistics companies in Nigerian Maritime industry. This consist of logistics firms operational in Nigeria but whose focus is in the maritime industry. Hence the geographical interest of the study is on the Nigerian maritime environment. The unit of analysis are the operators of third-party logistics companies with the Nigerian maritime industry.

## 2. Literature Review

### Systems Theory

The Systems Theory was developed by the Austrian biologist Ludwig von Bertalanffy, in the 1936s. He originally named his idea "Allgemeine Systemlehre", and was far along to be translated into English as "General System Theory". According to Desouza, Chattaraj, and Kraft, (2003)<sup>[5]</sup> the theory is based on the relationships and subsequent arrangement between the different component parts of a system. Such relationships are vital to the concept of a system, considering that it is what forms the 'whole', and are in place to drive the system towards the achievement of a common, general goal (Desouza, *et al.*, 2003)<sup>[5]</sup>. According to Lewis (2005)<sup>[16]</sup> cited in Katana and Gichure (2017)<sup>[13]</sup>, Systems Theory can be described as a collection of dynamic elements that preserve their coherence through interdependent interactions. Ludwig von Bertalanffy acknowledged the distinctions between various operating systems but also held the belief that there existed a universal set of principles governing the concept of a system, irrespective of the unique constituent components. Although diverse disciplines encounter systems differently, general principles apply (Katana and Gichure, 2017)<sup>[13]</sup>. The underlying philosophy of Systems Theory is primarily about focusing on the relationship between the component parts, rather than dismantling a system into its comprising elements. Focusing on the connections between elements leads to the subsequent discovery that a system's worth extends beyond the simple sum of its individual components. It encompasses the additional value generated by these relationships and the outcomes that arise from them. Considering the significant value placed on relationships and the completeness of a system, it can be deduced that the individual components and the entirety of the system coexist in an interdependent manner, supporting each other's existence. This interdependence should be the

focus of study and comprehension (Lewis, 2005) <sup>[16]</sup>. The choice to apply the system theory to this study was to address the second objective of the study, the fact that the challenge being addressed concerns logistics. Taking into account that logistics is viewed as a system composed of several constituent parts, this approach provides suitable theoretical grounds to examine the problem at hand by using the systems theory, according to Katana and Gichure (2017) <sup>[13]</sup>, 3PLs service providers can be inferred as a set of dynamic elements maintaining reliability through mutual interactions.

### **Effect of Employee Recruitment Process of Third-Party Logistics (3PLs)**

Jharkhariaa, and Shankar (2007) <sup>[12]</sup>. "Logistics Service Provider Selection: An Analytic Network Process (ANP) Approach" outlines a comprehensive methodology for choosing a logistics service provider, consisting of two key phases: (i) an initial screening of available providers and (ii) the final selection using the Analytic Network Process (ANP). The article identifies and employs criteria relevant to provider selection to construct an ANP model. An illustrative example demonstrates the application of ANP for the ultimate selection of a provider. The example's results emphasize that the primary determinant influencing the final selection process is the compatibility between the user and provider companies. This approach also enhances decision-makers' understanding of the intricate relationships among relevant attributes in the decision-making process, potentially enhancing decision reliability.

Anderson, *et al* (2010) <sup>[2]</sup> in their work what drives the choice of a third-party logistics provider. The study believe that firms select supply chain partners based on their particular value propositions; one would anticipate that this is also true when businesses select a logistics service provider. Yet it can be challenging for logistics service providers to gain a thorough grasp of how clients differently value the service components they provide due to the complexity of varying customer expectations. They responded to this by identifying the aspects that influence a customer's decision about a logistics service provider. We investigate the relative significance of seven service features using stated choice methods employing a sample of 309 managers who play a key role in the procurement of logistics services across a variety of industries and nations. The findings show that three different decisions models are used to generate our data, and these models reflect client groups whose preferences for various logistical service criteria, such as cost and delivery performance, differ significantly. In terms of strategy, our findings give the management of a third-party logistics provider a logical place to start when deciding the objectives that are set for their operations, particularly when deciding which customer categories to serve.

Wang *et al.* (2021) <sup>[26]</sup>, worked on a compromised decision-making approach to third-party logistics selection in sustainable supply chain using fuzzy AHP and fuzzy vikor methods. With the impacts of the Coronavirus pandemic, the online business pattern is driving quicker, significantly influencing supply chains all over the planet. Accordingly, the significance of operations and production network capabilities has been amplified in pretty much every business that ships actual merchandise. In Vietnam, the strategies administration area has seen fast development.

Since an ever-increasing number of organizations are looking for third party logistics (3PL) provider to rethink the coordinated factors works, this study aims to offer leaders an incorporated and reliable model for assessing and choosing the most efficient 3PLs. Ultimately, the upgraded 3PLs were resolved that completely met the measures of supportable turn of events. The created logistics model offers the total and vigorous 3PLs assessment and choice cycle and can likewise be a strong choice help device for different businesses.

Integrating operations is also crucial to the success of Logistics in any organization. It is described as the procedure through which several businesses operating within a common market collaboratively strategize, execute, and oversee the movement of products, services, and information from their source to the final destination (Heizer and Barry, 2013). Organizations rely heavily on efficient supply chains to provide a high level of customer service while meeting sales and profit targets. Information technologies, including enterprise resource planning systems, are at the core of integrated operations. There are several advantages associated with integrating operations. By embracing integrated logistics, companies gain an enhanced ability to forecast demand and respond proactively. In the current landscape of a global supply chain that's constantly evolving, businesses must be agile, capable of adapting swiftly to accommodate shorter product life cycles, emerging markets, and the ever-changing economic conditions. Integrated operations also improve flexibility, eliminate waste and achieve higher profit margins which translate to higher firm performance (Heizer and Barry, 2013). Furthermore, General System's theory finds significant relevance in this context as the integration of operations enables firms to function as a unified entity, resulting in enhanced efficiency. Various research studies have been conducted to elucidate how the integration of operations contributes to the enhancement of firm performance.

Jarzemskis (2006) <sup>[11]</sup> found that a large portion of firms outsources transportation and warehousing activities in a comparative analysis of small, medium, and large enterprises.

The findings of this study showed that about 40% of small businesses and 60% of medium-sized businesses purchase transport services. This supports the view on the prevalence of outsourcing for transport. Among the effect on performance as per Jarzemskis (2006) <sup>[11]</sup> is increased operational flexibility. Szuster (2010) <sup>[24]</sup> while investigating 189 manufacturing companies also found that outsourcing for transport increases operational flexibility. The specific findings show that a majority of the firms used services of 3PLs for transport to avoid tying up resources in assets.

Sheikh and Rana (2012) <sup>[21]</sup> concluded that outsourcing has a direct effect on the extent of resources committed to a particular process. They also established that outsourcing affects the level of capital invested within the firm. The achieved operational flexibility is necessitated by dynamic market conditions. The dimensions of flexibility investigated in primary research mostly include scale flexibility, that is, the level of output that meets customer demand, and service, and product flexibility, which entails the range of products and services that a firm offers to the market.

According to Adebambo *et al.*, (2015) <sup>[1]</sup>, manufacturers outsource warehousing activities alongside transportation services. This is because 3PLs package these as a single service among other offerings. Payaro and Papa (2017) <sup>[20]</sup> found that most SMEs are not aware of their logistical costs including warehousing costs and consequently fail to realize the benefits associated with such services. Moreover, the study indicated that a large percentage of SMEs are not convinced that outsourcing has a direct impact on their competitiveness.

Solakivi *et al.*, (2013) <sup>[22]</sup> investigated the motives and cost effects of outsourcing in trading and manufacturing companies in Finland. The authors found that among other aspects, outsourcing for warehousing and inventory management led to higher operational efficiency. The findings also showed that among the investigated firms, value-added services such as warehousing and in particular, inventory management were low since the firms operated under low standards of outsourcing with ignorance of the benefits related to optimization of outsourcing decisions.

Evangelista (2012) <sup>[7]</sup> found that ICT is an integral part of the international transport business since it allows the integration of shipping lines and channels. The same ICT benefits accrue in the area of warehousing and inventory management. It is however important to note that these IT-related benefits are tied to the main services outsourced i.e., warehousing and inventory management. This is because Kyusya (2015) <sup>[14]</sup> found that outsourcing for ICT services directly had no significant relationship with operational performance. On logistical packaging, Lady-Pokoloandrewson. (2016) <sup>[15]</sup> found that firms outsourced for the design of packaging materials, packaging of finished goods, and packaging compliance. Effective packaging serves to protect the product in storage and transport and can support information needs. In addition, the correct design of packaging reduces the complexity of delivery. Hellstrom and Nilsson (2011) <sup>[9]</sup>, on the other hand, link packaging with logistics, innovation, and competitive advantage. The argument is that legal frameworks, consumption trends, distribution trends, and business dynamics of the logistics industry influence packaging. The analysis of innovation and packaging in logistics by Hellstrom and Nilsson (2011) <sup>[9]</sup> shows that it is possible to achieve operational flexibility for partners; distributors, wholesalers, retailers, and transporters with innovative packages.

Regarding the regional state of logistics outsourcing, in developed countries such as the US, Canada, and EU region, logistics outsourcing practices are advanced in nature with third-party service providers seeking to add relationship value to customers (Min, 2013 <sup>[18]</sup>; Wilding and Juriado, 2014).

Contrastingly studies by Hofer, *et al.* (2015) <sup>[10]</sup> show that developing countries have previously adopted logistics outsourcing at its basic level. For example, Arroyo, *et al.* (2006) <sup>[3]</sup> explained that though Mexican firms used logistics outsourcing to be focused on core activities and to improve service delivery, firms in the US and Europe focus on tactical, integrated functions and cost reduction. In developing countries, logistics outsourcing can be used to improve the productivity of small firms albeit the restrictions due to market conditions. There are few third-party logistics providers and their packages are tailored for large institutions hence limiting the access of SMEs to outsourcing and the scope of outsourcing that can be

achieved (Arroyo, *et al.*, 2006) <sup>[3]</sup>.

### 3. Methodology

Research design is the specification of procedures for collecting and analyzing the data necessary to help solve the problem at hand. This current research adopted the cross-sectional research design in achieving its aim. The study was carried out in Nigeria, particularly the maritime corridors where third-party logistics operations are dominants.

The study population comprises of thirty-five (35) maritime third-party logistics companies. For the purpose of data collection, one thousand, two hundred and four (1,204) operational (logistics staff, transport unit and operations) staffs across the thirty-five (35) maritime third-party logistics companies were sampled (Researchers Reconnaissance survey, 2022).

To achieve a manageable population, thirty percent (30%) were obtained from the total 35 3PL companies. Also, to ascertain the study sample size to be investigated through questionnaire administration, the targeted population of 1,204 is a large one, thus the Taro Yamane formula was used to determine a manageable population size. The study applied the simple random sampling method to examine the respondents because it gives every member of the population equal chances of being selected.

The Taro Yamane (1967) provide a simplified formula to determine the research sample size.

$$n = \frac{N}{1+N(e)^2}$$

Where:

n = the sample size

N = the total population

e = the error of sampling/accepted error limits (0.05%)

1 = the constant figure/level of precision

The Taro Yamane formula was applied to the above total population to determine the study sample size:

$$= \frac{N}{1 + N(e)^2}$$

$$n = \frac{1204}{1 + 1204(0.05)^2}$$

$$\frac{1204}{1 + 1204(0.0025)}$$

$$\frac{1204}{1 + 3.01}$$

$$\frac{1204}{4.01}$$

$$n = 300.2 \text{ (sample size)}$$

This study adopted descriptive and inferential statistics to carry out the data analysis. The stated study hypothesis was tested using the Spearman rank correlation statistics.

### 4. Analysis

**Table 1:** Relationship between Employee Recruitment Process and the performance of Third-Party Logistics Companies

S. No	Statement	SA	A	SD	D	Total
1	Favouritism in Recruitment Process Affects the Quality of Third-Party Logistics Companies Businesses	154	92	17	10	273
2	Equipment Type Affects Quality of Operations of 3pls	137	105	24	7	273
3	Poor Recruitment Standards Affect the Quality of Operation	175	88	6	4	273
4	Job Specifications in the Recruitment Process Affects Third Party Logistics Companies	136	54	51	32	273
5	Recruitment in Third Party Logistics Based on Financial Status Affects the Operations of Third-Party Logistics Companies	145	81	21	26	273

**Test of Hypothesis:**

**H<sub>01</sub>:** there is no statistically significant relationship between employee recruitment process and the performance of third-party logistics companies.

**Table 2:** Summary of Analysis of Relationship (Spearman Correlation) between Recruitment Process and Performance of Third-Party Logistics Companies

		Recruitment Process	3PLs
Recruitment Process	Pearson's R	.961**	.955**
	Sig. (2-tailed)		.000
	N	273	273
3PLs	Spearman Correlation	.955**	.961**
	Sig. (2-tailed)	.000	
	N	273	273

Source: Computed from SPSS 23 Version

\*\* . Correlation is significant at the 0.01 level (2-tailed)

As presented in Table 2, the result shows the correlation value is 0.955. This means that there is a strong positive relationship between recruitment process and third-party logistics in the study area.

Hence the P-Value = 0.000. Hence, the P-value < the critical P-value of 0.01. Given the decision rule, since the P-value < the critical P-value of 0.01, it means that there is a statistically significant relationship between recruitment process and third-party logistics. We, therefore, reject the H<sub>0</sub> which says that there is no statistically significant relationship between recruitment process and third-party logistics.

As regards the effect of employee recruitment process of third-party logistics, analysis of the result has it that favouritism in recruitment process affects the quality of operation of third-party logistics across the different sections of a given firm for all the marine companies in the study area. Favouritism, when introduced, disrupts the flow of interaction amongst the staff of a company as they serve as individual components of the human resource of that particular company. In a situation wherein there is favouritism, incompetence might be introduced; and there won't be flow of work within. This runs in tandem with the study of Lewis (2005)<sup>[16]</sup> on the systems theory as cited in Katana and Gichure (2017)<sup>[13]</sup> alluding to it as a set of dynamic components maintaining integrity through mutual interactions. It further portrays the fact that all thirty-five companies must have faced the effect of this challenge in their business operations. Other aspects of factors in the recruitment process are equipment type, poor recruitment standard, job specifications in the recruitment process, recruitment in Third Party Logistics based on financial status.

**5. Conclusion and Recommendations**

**5.1 Conclusions**

Result gathering, evaluation and analysis using the

appropriate tool revealed the following findings; Favouritism affects the quality of operations of third party logistics companies in Nigeria. The study also showed that there is a statistically significant relationship between employee recruitment process and the performance of third-party logistics companies. The study from its onset was set to examine the relationship between employees' recruitment process and the performance of third-party logistics companies in Nigeria. Amidst the several challenges in the operations of third-party logistics companies in Nigeria, there exist identifiable solution for the smooth running of their operations. Hence this study concludes that avoiding favouritism in their recruitment process, is required for an effective and efficient operations of third-party logistics firms in Nigeria.

**5.2 Recommendations**

The profitability of any business organization can be increased through effective management of its operational aspects. Based on the results of findings, the following recommendations were made:

Third party logistics companies should ensure through their Human Resources departments that favouritism is expunged from their recruitment process. Third party logistics companies should ensure proper job descriptions in every aspect of their operations.

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