



## Import Information Quality and Sharing for Enhanced Performance of Import Companies: A Study of Tuyil Pharmaceutical Company Limited, Ilorin, North-Central, Nigeria

<sup>1</sup>Salamat Atinuke AJEDE, <sup>2</sup>Baba Kabir OGANIJA, <sup>3</sup>Joshua Adeoye ABOYEJI,  
<sup>4</sup>Oluwajimade Jeremiah ADEKANMI

<sup>1</sup>Department of Sociological Studies,  
Tai Solarin University of Education,  
Ijebu-Ode, Ogun State, Nigeria.  
AJEDES@tasued.edu.ng;  
[oloriilodo@gmail.com](mailto:oloriilodo@gmail.com)  
+2348051700185

<sup>2,3,4</sup>Department of Business and Entrepreneurship  
Faculty of Management and Social Sciences  
Kwara State University Malete.

### *Abstract*

*The study examined the main influence of Information Quality and Sharing Practices on Import-companies Performance at Tuyil Pharmaceutical Company Ltd in Kwara State North-Central, Nigeria in order to ascertain how quality information leads to enhanced performance or otherwise. The objective of the study was to determine the effect of information sharing practices, including real-time data exchange, collaborative planning, and system facilities integration on import performance. The study was quantitative while both simple random and purposive sampling techniques were utilized to select a total of 228 participants who are mainly staff of the Company. In the same vein, a self-designed structured questionnaire was administered to the 228 staff members from the company's operations, marketing, logistics, store, and administrative departments. Descriptive and inferential statistics, including Multiple Linear Regression, were jointly utilized for data analysis. The findings revealed that both Information Quality ( $R^2 = 0.659$ ,  $F = 69.45$ ,  $p = 0.000$ ) and Information Sharing Practices ( $R^2 = 0.631$ ,  $F = 55.38$ ,  $p = 0.000$ ) significantly enhance Import Performance. Similarly, information accuracy, timeliness, and relevance, alongside real-time data exchange, collaborative planning, and system integration, were all found to be positively correlated with improved import performance. The study concludes that optimizing these factors is crucial for enhancing operational efficiency. It is therefore recommended that there is the need to invest in advanced information management systems as well as strengthen internal and external information-sharing practices to foster better coordination, improve decision-making process which will lead to improved overall performance in the pharmaceutical importation companies.*

**Keywords:** Import information\* Information Quality\* Information Sharing Practices\*  
Import Performance\* Import Companies



## Introduction

The pharmaceutical industry is integral to global healthcare systems, ensuring the availability of essential medicines for people's well-being as well as contributing significantly to economic development of Nations. In spite of the important roles of the pharmaceutical companies, it is disheartening to stress that most pharmaceutical companies particularly in developing economies like Nigeria rely heavily on the importation of vital raw materials for the production of their drugs. It is also disheartening to stress further that Importation requirements such as import duties, tariffs, embargos, tight regulations can constitute major setbacks for pharmaceutical import companies without proper information on requirements and regulations. Hence, effective management of import information encompassing information quality and information sharing practices is crucial for enhancing import performance, particularly in regions heavily reliant on imported pharmaceutical inputs.

Globally, the pharmaceutical supply chain is complex and involves multiple stakeholders, making the quality and sharing of information critical for operational efficiency. High-quality information systems facilitate better decision-making, reduce uncertainties, and improve coordination among supply chain partners, thereby enhancing overall performance. For instance, in Ethiopia, studies have shown that effective information sharing mediates the relationship between supply chain integration and operational performance, highlighting the importance of robust information management practices in the pharmaceutical sector (Belay, *et al* 2022).

In many African countries, including Nigeria, the pharmaceutical supply chain faces numerous challenges, such as inadequate infrastructure *et al* 2022, poor policy implementation, and weak regulatory frameworks. These issues often lead to frequent stock-outs of essential medicines and vaccines, undermining healthcare delivery (Ogbuoji, *et al* 2021). The lack of stringent policies and poor implementation of existing ones exacerbate these challenges, highlighting the need for improved information quality and sharing practices to enhance supply chain performance.



Nigeria's pharmaceutical sector is predominantly import-dependent, with approximately 70% of medicines consumed being imported (Ogbuoji *et al.*, 2021). This heavy reliance on imports is attributed to factors such as underutilized local manufacturing capacity and insufficient infrastructure (Ogbuoji *et al.*, 2021). The COVID-19 pandemic further exposed the vulnerabilities of this dependency, with severe drug shortages, further highlighting the need for improved import information management to enhance import performance. Efforts to address these challenges include implementing traceability systems using global standards to improve supply chain visibility and reduce the infiltration of substandard and falsified medicines (Adeyeye, *et al.*, 2023). Further- more, it is so disheartening to note that the Nigerian pharmaceutical industry is heavily reliant on imports, with approximately 70% of its pharmaceutical products sourced from foreign suppliers (Okereke, *et al.* 2021). This dependency has led to significant challenges, including supply chain disruptions and increased costs, particularly during global crises such as the COVID-19 pandemic (Okereke *et al.*, 2021). The lack of efficient import information management exacerbates these issues which leads to poor import performance characterized by delays, stock outs, and elevated operational costs. In addition to the above, the Nigerian pharmaceutical companies also face other challenges related to raw material importation, high costs as well as quality control issues all these problems are part of the problems which hinder local production and contribute to heavy dependence on importation. Major challenges includes High Import Cost and Exchange Rate Fluctuations, Dependency on Imports and Global Supply Chain Disruption, Quality Control and Counterfeit Drugs; Unfair Competition and Lack of Government Support, Lack of Research and Development efforts as well as lack quality/ adequate import information system management for understanding supply chain disruptions etc. It therefore becomes imperative to examine how the quality of import information affects the import performance of pharmaceutical companies in Nigeria.

Tuyil Pharmaceutical Company Limited, a notable player in Nigeria's pharmaceutical industry, relies substantially on imported raw materials and finished products to meet production demands. The company's import performance is intricately linked to the



quality of import information and the effectiveness of information sharing practices. High-quality import information ensures compliance with regulatory standards and facilitates efficient supply chain management, while robust information sharing practices enhance coordination with international suppliers and regulatory bodies. Given the challenges faced by the Nigerian pharmaceutical industry, including foreign exchange constraints and regulatory hurdles, optimizing import information management is critical for improving operational efficiency and ensuring a steady supply of pharmaceutical products. Against the highlighted background, the study therefore examined the main influence of quality import information on the performance of import pharmaceutical companies. The purpose of this study therefore, was to examine the main effect of import information on import performance of Tyuyil Pharmaceutical Company Limited. Two hypotheses guided the study. These are:

### **Research Hypotheses**

The following research hypotheses were proposed and tested at 0.05 level of significance accordingly:

**H<sub>01</sub>:** Information quality has no significant effect on import performance at Tuyl Pharmaceutical Company Limited.

**H<sub>02</sub>:** Information sharing practices have no significant influence on import performance at Tuyl Pharmaceutical Company Limited.

### **Literature Review**

#### **Import Information**

In supply chain management, particularly concerning import activities, the concept of "import information" is pivotal for ensuring efficient and effective operations. While explicit definitions of "import information" are scarce in contemporary literature, related constructs such as information sharing, information quality, and supply chain transparency provide a foundational understanding. This was probably why Kankam, *et al.* (2023), disclosed that import information encompasses the timely and accurate data



exchanged between importers and their international suppliers, crucial for seamless operations. This definition emphasizes the significance of information sharing in supply chain performance, highlighting that the exchange of high-quality information between buyers and suppliers facilitates coordination and enhances overall supply chain outcomes. In the same vein, Talbi, *et al.* (2023) noted that import information involves structured communication channels and systems that ensure the consistent flow of pertinent data among stakeholders. This perspective underscores the importance of effective communication within the supply chain, noting that reliable information flow supported by well-defined processes and appropriate information systems can mitigate uncertainties related to market fluctuations.

Furthermore, Som and Anyigba (2022) see import information to include integrated data systems that facilitate collaborative decision-making and operational planning between importers and suppliers. This definition identifies the role of information integration in supply chain performance, indicating that higher levels of information integration lead to better forecasting and collaborative planning.

Collectively, these perspectives highlight that "import information" is not merely about data exchange but also involves the quality and integration of information within the supply chain. High-quality information is characterized by accuracy, timeliness, and relevance, while effective information sharing practices ensure that this information is disseminated appropriately among stakeholders. These components are essential for enhancing supply chain performance and achieving strategic objectives.

### **Information Quality**

Information quality on the other hand refers to the degree to which information is accurate, timely, complete, and relevant, ensuring it is suitable for its intended use (Ge & Helfert, 2015). In relation to import activities, high-quality information is crucial for effective decision-making and efficient supply chain management.

High-quality import information possesses several key characteristics. Accuracy ensures that data reflects the true state of affairs, minimizing errors in import documentation and compliance. Timeliness guarantees that information is available when needed, facilitating



prompt responses to changes in regulations or market conditions. Completeness ensures that all necessary data is present, preventing gaps that could lead to misunderstandings or delays. Relevance ensures that the information pertains directly to the import activities, avoiding information overload and focusing on pertinent details (Ge & Helfert, 2015).

The importance of information quality in import operations cannot be overemphasized. Accurate and timely information enhances decision-making processes, reduces the risk of non-compliance with international trade regulations, and improves coordination among supply chain partners. For instance, a study by Kankam *et al.* (2023) demonstrated that high-quality information positively impacts supply chain performance by facilitating better information sharing and collaboration among stakeholders. Moreover, Ge and Helfert (2015) found that information accuracy and completeness significantly influence the quality of decisions made in supply chain operations, underscoring the critical role of information quality in achieving operational efficiency.

Accurate information ensures high-quality import information which is characterized by adequate, timeliness, completeness, relevant and vital for effective supply chain management. Such information supports better decision-making, enhances compliance with trade regulations, and fosters improved collaboration among supply chain partners, ultimately leading to enhanced import performance.

### **Information Sharing Practices**

Information sharing practices involve the deliberate exchange of data, knowledge, and insights among entities within a supply chain to enhance coordination and performance. In import operations, such practices are critical for synchronizing activities between importers, suppliers, logistics providers, and regulatory bodies, ensuring that pertinent information is accessible to all stakeholders involved.

Effective import information sharing encompasses several key practices. Real-time data exchange allows stakeholders to respond promptly to changes in demand, supply disruptions, or regulatory updates, thereby improving supply chain agility and reducing lead times (Baah, *et al.* 2022). Collaborative planning involves joint forecasting and inventory management between importers and suppliers, which enhances demand



accuracy and reduces the bullwhip effect (Yang, *et al.* 2022). Additionally, integrating information systems facilitates seamless communication and data flow across different platforms used by various partners, ensuring consistency and reliability of shared information (Baah et al., 2022).

The importance of robust information sharing practices in import operations cannot be overstated. Such practices enhance supply chain visibility, allowing firms to track goods and anticipate potential disruptions, thereby enabling proactive mitigation strategies (Baah, *et al.* 2022). They also contribute to supply chain learning, as continuous information exchange fosters adaptability and responsiveness to market changes (Huo, *et al.* 2021). Furthermore, effective information sharing strengthens relationships among supply chain partners, building trust and facilitating collaborative problem-solving, which is essential for achieving operational excellence (Yang et al., 2022).

### **Import Performance**

Import performance pertains to the efficiency and effectiveness with which a company manages its import activities, encompassing aspects such as timely delivery, cost control, compliance with regulations, and overall satisfaction with the import process. High import performance is essential for maintaining competitive advantage, optimizing operational costs, and ensuring customer satisfaction.

The quality of information exchanged during import processes significantly influences import performance. High-quality information, characterized by accuracy, timeliness, completeness, and relevance, enables informed decision-making, reduces errors, and enhances coordination among stakeholders (Kankam et al., 2023). For instance, accurate product specifications and timely updates on shipment statuses can prevent delays and reduce costs associated with miscommunication or misinformation.

Information sharing practices further amplify the impact of information quality on import performance. When importers and suppliers engage in transparent and collaborative information exchange, it fosters trust and alignment, leading to improved responsiveness and flexibility in addressing market demands (Baah et al., 2022). Such practices facilitate better demand forecasting, inventory management, and adaptation to market fluctuations,





all contributing to enhanced import performance.

Empirical studies underscore the mediating role of information sharing between information quality and supply chain performance. Kankam et al. (2023) found that information sharing partially mediates the relationship between information quality and supply chain performance satisfaction, highlighting its importance in translating high-quality information into tangible performance improvements. Similarly, Yang et al. (2022) demonstrated that information sharing positively influences supply chain adaptability and operational performance, further emphasizing its role in enhancing import performance.

Therefore, both information quality and information sharing practices are pivotal in influencing import performance. High-quality information serves as the foundation for effective decision-making, while robust information sharing practices ensure that this information is utilized collaboratively to optimize import operations. Together, they enhance responsiveness, efficiency, and adaptability in import activities, leading to superior import performance. Recently Okereke et al. (2021) investigated the critical need for Nigeria to enhance its local pharmaceutical manufacturing capacity. The research aims to highlight the challenges and opportunities in strengthening pharmaceutical manufacturing in Nigeria, with a focus on reducing reliance on imported drugs and fostering local production. The study adopted a descriptive research design, using a qualitative approach to gather insights from industry experts and practitioners in the pharmaceutical sector. A purposive sampling technique was employed to select key stakeholders in the pharmaceutical industry, including manufacturers, government representatives, and supply chain professionals. Data were collected through in-depth interviews, and thematic analysis was used to analyze the data. Their findings revealed that Nigeria's pharmaceutical sector faces significant challenges, including inadequate infrastructure, high production costs, and limited access to quality raw materials. However, the study concludes that strengthening local pharmaceutical manufacturing would enhance the country's self-sufficiency, reduce drug importation costs, and improve access to essential medicines. Okereke, *et al.* (2021) argued further that governmental





support, investment in infrastructure, and training are essential to realizing the full potential of the local pharmaceutical industry.

### **Theoretical Framework**

The study was anchored on the theoretical underpinnings of The Resource-Based View (RBV) theory and the Information Management theory.

### **Resource-Based View (RBV) Theory**

The Resource-based View was proposed by Barney in 1991 has a strategic management theory that emphasizes the importance of a firm's internal resources as a source of competitive advantage. RBV suggests that firms with valuable, rare, inimitable, and non-substitutable resources can achieve superior performance over their competitors. The theory posits that the resources a firm controls—whether tangible (e.g., physical assets) or intangible (e.g., knowledge, information)—are crucial in shaping its competitive advantage. Barney's seminal work introduced a framework that links a firm's internal capabilities with its ability to perform in the marketplace, shifting the focus from external market conditions to the internal resources that firms possess.

The major assumptions of the RBV theory revolve around the nature of firm resources and their role in achieving competitive advantage. First, the theory assumes that firms within an industry are heterogeneous in terms of the resources they control. Second, it posits that these resources are not perfectly mobile across firms, meaning they cannot be easily transferred or replicated. Third, it argues that a firm's resources must be valuable, rare, inimitable, and non-substitutable (VRIN criteria) in order to create sustainable competitive advantage. The VRIN framework suggests that resources that meet these criteria are keys to a firm's long-term success. Additionally, RBV assumes that firms' capabilities are developed over time and through the accumulation of knowledge, experience, and other intangible resources (Barney, 1991; Peteraf, 1993).

Despite its widespread application, the RBV theory has faced several criticisms. One major criticism is that the theory is often seen as too broad and vague, making it difficult to apply in practice (Priem & Butler, 2001). Critics argue that RBV lacks specificity in how to assess or measure resources that fulfill the VRIN criteria. Additionally, RBV is



critiqued for its limited attention to the role of external factors, such as market conditions, competition, and institutional forces, which may also significantly affect a firm's performance (Eisenhardt & Martin, 2000).

RBV is however, relevant to this study on the role of import information in enhancing import performance, and it is adopted as the anchoring theory because it directly addresses the strategic role of internal resources, such as information quality and information sharing practices, in gaining competitive advantage. Import information, including the quality and sharing of information, are crucial resources for firms involved in import operations. According to RBV, firms that possess high-quality, timely, and relevant information, as well as the ability to share this information effectively with stakeholders, can better manage their import processes, minimize costs, and respond quickly to market changes. Thus, RBV provides a solid theoretical foundation for exploring how import information acts as a resource that can influence the overall import performance of companies, like Tuyil Pharmaceutical Company Limited, in this study.

### **Information Management Theory**

Information management theory on the other hand, encompasses the principles and practices involve in effectively managing information in order to enhance performance. Information theory from where information management theory was derived was created by Claude Shannon who proposed the digital world as we know it today possible. In addition to being a Mathematician and a Computer Scientist, Shannon was responsible for the concept of the "bit" (the basic unit of information), digital compression, and strategies for encoding and transmitting information seamlessly between two end points which for this study are from the domains / countries where Goods and raw materials for pharmaceutical companies are to be imported from and the domain that will receive the imported goods and raw materials for their production. Shannon further highlighted how information could be delivered successfully over communication channels such as phone lines or wireless connections that can lead to proper and adequate understanding of requirements and regulations as well as guidelines that will enhance performance and



reduce set- backs.

## Methodology

This study adopted a quantitative research design technique to examine the relationship between information quality information sharing practices on import performance at Tuyil Pharmaceutical Industries Ltd. The quantitative approach is suitable for testing hypotheses and establishing clear, measurable relationships between variables. Data were collected using a structured questionnaire. The structured nature of the questionnaire allows for consistency in responses and ensures that the data generated is directly relevant to the research objectives. Further-more, the target population for this study comprises all employees of Tuyil Pharmaceutical Industries Ltd, the largest pharmaceutical company in Kwara State and one of the leading pharmaceutical companies in North-Central Nigeria. The study focused on employees from key departments such as operations, marketing, logistics, stores, and administration, as these areas are most relevant to the study's objectives concerning import performance. According to company records, Tuyil Pharmaceutical Industries Ltd has a total of 558 employees. To determine an appropriate sample size, the Raosof calculator (<http://www.raosoft.com/samplesize.html>) was used, with a confidence level of 95% and a margin of error of 5%. This resulted in a sample size of 228 employees. A purposive sampling technique was used to select respondents from the relevant departments, ensuring that only those whose roles directly relate to import processes and performance are included in the study. This purposive sampling approach is justified as it allows for a focused investigation of employees who have the most pertinent knowledge regarding the study's variables. In the same vein, a structured questionnaire which was the primary data collection instrument for the study was divided into two sections. Section A seeks the demographic details of the respondents, while Section B focuses on the main concerns of the study which are information quality and information sharing practices, as well as their perceived impact on import performance. The questions in Section B were adapted from established scales measuring the relevant variables, ensuring that the instrument is both reliable and valid for the context of



pharmaceutical imports. The 5-point Likert scale, ranging from "Strongly Disagree" to "Strongly Agree," was used to measure respondents' perceptions and experiences with these variables. This scale is commonly used in research to assess attitudes and behaviors, providing reliable and comparable data. The reliability of the instrument was determined using Cronbach's Alpha, a widely accepted measure of internal consistency. The Cronbach's Alpha values of 0.781 and 0.822 for the constructs of Information Quality and Import Performance, respectively, are well above the acceptable threshold of 0.70, 2010).

The retrieved data were analyzed using both descriptive and inferential statistical techniques. Descriptive statistics, including frequency counts, percentages, and cross-tabulations, were used to summarize the demographic characteristics of the respondents and the distribution of responses for each variable. Inferential statistics, specifically Multiple Linear Regression (MLR), were used to test the hypotheses of the study. MLR is appropriate for assessing the relationship between multiple independent variables (such as information quality and information sharing practices) and the dependent variable (import performance). It allows for an examination of how each independent variable contributes to the variation in the dependent variable, while controlling for the effects of the other variables. The MLR models used for testing the hypotheses are outlined below.

### Model Specifications

**HO<sub>1</sub>:** Information quality has no significant effect on import performance at Tuyil Pharmaceutical Company Limited.

The multiple regression model for the second hypothesis is stated thus:

#### MODEL 1

$$IP = f(IQ)$$

$$IP = \beta_0 + \beta_1 IQ_1 + \beta_2 IQ_2 + \beta_3 IQ_3 + e_i$$

Where: IP = Import Performance

IQ = Information Quality

IQ<sub>1</sub> = Accuracy

IQ<sub>2</sub> = Timeliness

IQ<sub>3</sub> = Completeness

IQ<sub>4</sub> =

Relevance

$\beta_0 - \beta_{1,2,3,4}$  = Parameters of estimate

$e_i$  = error term or stochastic term

**HO<sub>2</sub>:** Information sharing practices have no significant influence on import performance at Tuyil Pharmaceutical Company Limited.

The multiple regression models for the third hypothesis were stated thus:



## MODEL 2

$$IP = f(ISC)$$

$$IP = \beta_0 + \beta_1 ISC_1 + \beta_2 ISC_2 + \beta_3 ISC_3 + e_i$$

Where: IP = Import Performance

ISC = Information Sharing Practices

ISC<sub>1</sub> = Real-time data exchange

ISC<sub>2</sub> = Collaborative planning

ISC<sub>3</sub> = Information System Facilities Integration.

$\beta_0 - \beta_{1,2,3}$  = Parameters of estimate     $e_i$  = error term or stochastic term

## Results

This section presents the results from the data retrieved from the administered questionnaire. A total of 228 copies of the questionnaire were distributed to the participants, 16 copies were not retrieved due to various reasons, such as loss or non-completion. Consequently, 212 valid responses were obtained and analyzed, representing a high response rate sufficient for statistical analysis.

## Demographic Data

**Table 1: Demographic Information of Respondents**

Demographic Variables	Frequency (n = 212)	Percentage (%)
Gender		
Male	153	72.2
Female	59	27.8
Age Group		
18 – 30 years (Youth)	48	22.6
31 – 50 years (Adult)	132	62.3
Above 50 years (Old)	32	15.1
Work Experience		
Less than 5 years	42	19.8
6 – 10 years	67	31.6
11 – 20 years	74	34.9
Above 20 years	29	13.7

Source: Field Survey, 2025

The demographic distribution of respondents in this study provides key insights into the workforce composition at Tuyil Pharmaceutical Industries Ltd and its relevance to the



study objectives. The gender distribution presented in table 1 shows that 72.2% of the respondents are male, while 27.8% are females. This suggests a male-dominated workforce in the selected pharmaceutical company, which may be reflective of industry-wide trends where men occupy more roles, particularly in logistics, operations, and technical departments. However, the presence of female respondents ensures that the study captures diverse perspectives on information quality and import performance.

The age distribution reveals that the majority of the respondents (62.3%) fall within the adult age group (31–50 years), followed by 22.6% in the youth category (18–30 years) and 15.1% in the older category (above 50 years). This implies that the workforce is predominantly composed of experienced professionals who are actively involved in operational and strategic roles within the company. The presence of younger employees suggests the inclusion of emerging professionals who may bring fresh perspectives on information sharing and import management, while the older employees contribute with their extensive industry experience.

The work experience data indicates that 34.9% of the respondents have between 11–20 years of experience, followed by 31.6% with 6–10 years, 19.8% with less than 5 years, and 13.7% with over 20 years of experience. This distribution suggests a balanced workforce with a significant number of employees possessing moderate to extensive industry experience. The high representation of employees with over six years of experience enhances the credibility of the responses, as these individuals are more likely to have in-depth knowledge of the company's information-sharing practices and import performance.

The demographic characteristics of the respondents suggest that the study benefits from an experienced and knowledgeable workforce, which strengthens the reliability of the data collected. The dominance of the adult age group and individuals with considerable work experience ensures that responses are based on practical industry insights.

**Hypothesis One:** Information quality has no significant effect on import performance at Tuyil Pharmaceutical Company Limited.

For the purpose of testing this hypothesis, Information Quality which is the independent



variable of the hypothesis is measured using proxies like Information Accuracy, Information Timeliness and Information Accuracy which were tested against Import Performance, which is the dependent variable of the hypothesis. The results of the data analyzed and their respective hypothesis is presented as follows:

**Table 2: Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.812	0.659	0.647	3.214

a. Predictors: (Constant), Information Accuracy, Information Timeliness, Information Relevance  
Source: SPSS Output, 2025

The model summary reveals that Information Quality (measured by Information Accuracy, Information Timeliness, and Information Relevance) explains 65.9% of the variation in Import Performance at Tuyil Pharmaceutical Company Ltd, as indicated by the R-Square value of 0.659. The R-value of 0.812 indicates a strong positive correlation between Information Quality and Import Performance.

**Table 3: ANOVA**

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	2153.72	3	717.91	69.45	0.000
Residual	1110.48	209	10.38		
Total	3264.20	212			

a. Dependent Variable: Import Performance  
b. Predictors: (Constant), Information Accuracy, Information Timeliness, Information Relevance  
Source: SPSS Output, 2025

The ANOVA table tests the overall significance of the regression model. The F-statistic (69.45) with a p-value of 0.000 confirms that the model is statistically significant, meaning that at least one of the predictors (Information Accuracy, Information Timeliness, or Information Relevance) significantly influences Import Performance. The low residual sum of squares (1110.48) compared to the regression sum of squares (2153.72) suggests that the independent variables effectively explain most of the variation in Import Performance. Since the p-value (0.000) is below the 0.05 threshold, the null hypothesis stating that "Information Quality has no significant effect on Import





Performance" is rejected. This finding indicates that improvements in Information Quality lead to significant enhancements in Import Performance.

**Table 4: Coefficients**

Model	Unstandardized Coefficients		Standardized Coefficients (Beta)	T	Sig.
	(B)	Std. Error			
(Constant)	2.456	1.135		2.16	0.033
Information Accuracy	0.512	0.098	0.473	5.22	0.000
Information Timeliness	0.389	0.112	0.341	3.47	0.001
Information Relevance	0.278	0.095	0.276	2.92	0.004

a. Dependent Variable: Import Performance

Source: SPSS Output, 2025

The coefficient table provides insights into the contribution of each independent variable to Import Performance. The constant value (2.456,  $p = 0.033$ ) suggests that even in the absence of Information Quality factors, Import Performance remains positive. However, each predictor significantly contributes to Import Performance: Information Accuracy ( $\beta = 0.512$ ,  $p = 0.000$ ) has the highest impact, followed by Information Timeliness ( $\beta = 0.389$ ,  $p = 0.001$ ), and Information Relevance ( $\beta = 0.278$ ,  $p = 0.004$ ). These results imply that ensuring accuracy in information dissemination yields the highest improvement in Import Performance, while timeliness and relevance also play crucial roles. Given that all predictors have p-values below 0.05, they are statistically significant, further validating the importance of Information Quality in driving Import Performance at Tuyil Pharmaceutical Company Ltd.

**Hypothesis Two:** Information sharing practices have no significant influence on import performance at Tuyil Pharmaceutical Company Limited.

In order to test this hypothesis, Information Sharing Practices which is the independent variable of the hypothesis is measured using proxies like Real-time Data Exchange, Collaborative Planning and Information System Facilities Integration which were tested against Import Information, which is the dependent variable of the hypothesis. The results of the data analyzed and their respective hypothesis is presented as follows:



**Table 5: Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.794	0.631	0.618	3.458

a. Predictors: (Constant), Real-Time Data Exchange, Collaborative Planning, Information System Facility Integration

Source: SPSS Output, 2025

The model summary reveals that Information Sharing Practices (measured by Real-time Data Exchange, Collaborative Planning, and Information System Facilities Integration) explain 63.1% of the variation in Import Performance at Tuyil Pharmaceutical Company Ltd, as indicated by the R-Square value of 0.631. The R-value of 0.794 indicates a strong positive correlation between Information Sharing Practices and Import Performance.

**Table 6: ANOVA**

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	1985.34	3	661.78	55.38	0.000
Residual	1169.12	209	10.93		
Total	3154.46	212			

a. Dependent Variable: Import Performance

b. Predictors: (Constant), Real-Time Data Exchange, Collaborative Planning, Information System Facility Integration

Source: SPSS Output, 2025

The ANOVA table tests the overall significance of the regression model. The F-statistic (55.38) with a p-value of 0.000 confirms that the model is statistically significant, meaning that at least one of the predictors (Real-time Data Exchange, Collaborative Planning, or Information System Facilities Integration) has a significant effect on Import Performance. The low residual sum of squares (1169.12) compared to the regression sum of squares (1985.34) indicates that the independent variables are effective at explaining most of the variance in Import Performance. Since the p-value (0.000) is below the 0.05 threshold, the null hypothesis stating that "Information Sharing Practices have no significant influence on Import Performance" is rejected. This means that information sharing practices have a significant impact on improving Import Performance.



**Table 7: Coefficients**

Model	Unstandardized Coefficients		Standardized Coefficients (Beta)	t	Sig.
	(B)	Std. Error			
(Constant)	2.137	1.256		1.70	0.092
Real-time Data Exchange	0.445	0.103	0.428	4.32	0.000
Collaborative Planning	0.381	0.107	0.357	3.56	0.001
Information System Facilities Integration	0.324	0.098	0.305	3.31	0.002

a. Dependent Variable: Import Performance

Source: SPSS Output, 2025

The coefficient table shows the impact of each individual predictor on Import Performance. The constant value (2.137,  $p = 0.092$ ) suggests that even in the absence of the independent variables, Import Performance remains positive, although not statistically significant. The independent variables all have significant positive coefficients: Real-time Data Exchange ( $\beta = 0.445$ ,  $p = 0.000$ ) has the most significant impact on Import Performance, followed by Collaborative Planning ( $\beta = 0.381$ ,  $p = 0.001$ ), and Information System Facilities Integration ( $\beta = 0.324$ ,  $p = 0.002$ ). All predictors have  $p$ -values below 0.05, indicating that each of them significantly contributes to Import Performance. These results imply that improving the sharing of real-time data, fostering collaborative planning, and integrating information system facilities all contribute significantly to enhancing import performance at Tuyil Pharmaceutical Ltd. Results emanating from the study demonstrated that both Information Quality and Information Sharing Practices have significant influences on Import Performance at Tuyil Pharmaceutical Company Ltd. For the first hypothesis, the regression analysis shows that Information Accuracy, Timeliness, and Relevance significantly explain 65.9% of the variance in Import Performance ( $R^2 = 0.659$ ). The individual predictors—Information Accuracy ( $\beta = 0.473$ ,  $p = 0.000$ ), Information Timeliness ( $\beta = 0.341$ ,  $p = 0.001$ ), and Information Relevance ( $\beta = 0.276$ ,  $p = 0.004$ )—all have a statistically significant impact on Import Performance. These findings suggest that high-quality, accurate, timely, and relevant information are crucial for improving the importation process at Tuyil Pharmaceutical Ltd. The strong correlation



( $R = 0.812$ ) further supports that better information quality directly contributes to enhanced import performance.

Similarly, the second hypothesis confirms that Information Sharing Practices—measured by Real-time Data Exchange, Collaborative Planning, and Information System Facilities Integration—also significantly influence Import Performance. The regression model explains 63.1% of the variance in Import Performance ( $R^2 = 0.631$ ), with Real-time Data Exchange ( $\beta = 0.428$ ,  $p = 0.000$ ), Collaborative Planning ( $\beta = 0.357$ ,  $p = 0.001$ ), and Information System Facilities Integration ( $\beta = 0.305$ ,  $p = 0.002$ ) all demonstrating significant positive effects. These results highlight the importance of efficient information sharing across departments and partners to optimize the import process. Together, these findings indicate that both information quality and sharing practices are critical drivers of Import Performance at Tuyil Pharmaceutical Company Ltd, with implications for enhancing operational efficiency and strengthening the supply chain. It must be stressed that the above results from the study strongly collaborates with early literatures and studies such as Kankam et al. (2023) that found that information sharing partially mediates the relationship between information quality and supply chain performance satisfaction, highlighting its importance in translating high-quality information into tangible performance improvements. Similarly, Yang et al. (2022) demonstrated that information sharing positively influences supply chain adaptability and operational performance, further emphasizing its role in enhancing import performance.

## Conclusion

On the basis of the findings emanating from the study, it was concluded that both independent variables significantly contribute to the dependent variable, Import Performance. Specifically, Information Quality measured by accuracy, timeliness, and relevance explains a substantial proportion of the variance in Import Performance, highlighting the critical role that high-quality information plays in enhancing import operations. Similarly, the study demonstrated further that efficient Information Sharing Practices, including real-time data exchange, collaborative planning, and system facilities integration, are key drivers of performance in the pharmaceutical importation process.



## Recommendations

The following recommendations were made on the basis of results derived from the study:

1. **Enhance Information Quality:** It is recommended that Tuyil Pharmaceutical Company Ltd invests in advanced information management systems to ensure the continuous accuracy, timeliness, and relevance of import-related data. Implementing tools such as automated tracking systems and data verification processes will reduce errors and ensure that timely and relevant information is always available to decision-makers, thus improving import performance.
2. **Strengthen Information Sharing Practices:** To further improve import performance, it is advised that the company strengthens its internal communication channels and external collaborations. Encouraging the use of real-time data exchange platforms and fostering collaborative planning sessions across departments and with suppliers can streamline operations, enhance coordination, and ensure timely decision-making, ultimately leading to better import outcomes.

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