



FOURTH QUARTER 2024 LOGISTICS MANAGERS INDEX REPORT

(October - December 2024)

A CARISCA REPORT

The LMI value for Ghana for the fourth quarter of 2024 is 66.8

The LMI for the fourth quarter of 2024 increased by 1.4 points from the third quarter's value of 65.4.

Growth is increasing for Inventory Levels, Inventory Costs, Warehousing Capacity, and Warehousing Utilization. Conversely, **growth is slowing** for Warehousing Prices, Transportation Capacity, Transportation Utilization, and Transportation Prices.

(Kumasi, Ghana) – The fourth quarter 2024 Logistics Managers Index registered a value of 66.8, up (+1.4) from September's reading of 65.4. This marks the third consecutive increase in the growth of Ghana's LMI since March 2024. The positive movement in the overall index was driven by the continuing growth in inventory levels, inventory costs, warehousing capacity and warehousing utilization. Though rarely the case, corresponding growth in both inventory levels (+4) and inventory costs (+4.7) has been quite significant and has contributed to the current overall LMI growth registered. Both of these metrics have recorded their fastest rate of expansion in 2024 as businesses increased their volumes of stocks for the festive season. Costs are still relatively high as the country's inflation rate continues to increase in addition to the cedi's decline against the dollar on forex trading. It is interesting to see warehousing prices and transportation prices experience decreasing growth. Long-term rental lease agreements and a reduction in fuel prices leading to December have contributed to this.

Further evidence indicates that Ghanaian supply chains are not as strained as in the previous quarter with warehousing capacity increasing to 63.6 (+4.1). It's interesting that transportation metrics picked up slightly in December, with transportation capacity decreasing to 66.8 (-8.8) while the expansion of transportation utilization (71.6; -0.4) and transportation prices (91.2; -1) decreased minimally. The slight tightening of transportation capacity coupled with increasing levels of inventory suggests that inventory building up quickly in response to the needs of the December festive season.

Researchers at the Centre for Applied Research and Innovation in Supply Chain – Africa (CARISCA) issued this report today.

REPORT HIGHLIGHTS

The overall LMI score is a combination of eight distinct metrics that make up activities in the logistics sector: inventory levels and costs; warehousing capacity, utilization and prices; and transportation capacity, utilization and prices. A diffusion index, with a range between 1 and 100, is used to calculate the overall LMI. A reading above 50.0 indicates that logistics activities are expanding while a reading below 50.0 reflects a contraction of logistics activities. The LMI summarizes the responses of supply chain, logistics, procurement and operations professionals from multiple industries in Ghana. Data for this fourth quarter report (Q4-2024) was collected from October to December 2024.

- ❖ The overall Logistics Managers Index (LMI) for Ghana for the fourth quarter of 2024 stands at 66.8, up by 1.4 percentage points from the third quarter reading of 65.4. This slight increase in growth can be attributed to the increasing rate of growth in inventory levels, inventory costs, warehouse capacity and warehouse utilization. All the metrics for the fourth quarter registered values above the threshold of 50 with the transportation prices recording the highest value (91.2) and warehousing capacity registering the lowest value (63.6).
- ❖ Findings from this quarter's survey indicate that inventory levels have experienced increasing growth, recording a value of 66.0; an increase of +4 percentage points over the third quarter's value of 62.0.
- ❖ December's inventory levels (66.0) seem to be the highest level recorded in the history of the Ghana LMI with the second highest value being 65.5 (registered in the first quarter of 2022). This growth is very suggestive of high inventory ordering for the festive season. Speculative purchases could also be a factor as retailers are cautious of the possibility of increased depreciation of the local currency on the forex exchange market in the new year. The increasing rate of growth of inventory levels has also had a positive effect on warehousing utilization (67.7; +2.2) and transportation capacity (68.8; -8.8).
- ❖ The three cost metrics seem to be suggesting mixed signals with inventory costs growing at an increasing rate (88.7; +4.7) while warehousing prices (81.6; -3.1) and transportation prices (91.2; -1) are growing at a decreasing rate. Altogether, aggregate logistics cost remains almost the same from the previous quarter increasing by 0.6 points.
- ❖ Warehouse capacity grew at an increasing rate recording a value of 63.6 (up by 4.1 from the previous quarter's 59.5). Warehouse utilization also registered increasing growth at 67.6 (up by 2.2 points from the previous quarter's value of 65.5). Once more, this is driven by higher warehousing utilization among downstream firms, particularly retailers, which recorded a value of 75.0 this quarter. In comparison, upstream firms registered a slightly lower utilization rate at 66.3.
- ❖ Transportation capacity grew at a decreasing rate of 68.8 (down by 8.8) from the previous quarter's value of 77.6. This metric has dropped after it picked up in the third quarter. Transportation utilization on the other hand remains quite steady recording a value of 71.6 (down by -0.4)

- ❖ The growth of logistics activities is expected to experience a slight increase in the next 12 months, with a predicted overall LMI of 68.9. This is a higher projection than the previous quarter's 64.0. Respondents' expectations about growth seem to be hopeful, especially with the recent change in government. Respondents are optimistic that the prevailing economic situations in the country largely as a result of high inflation and the depreciation of the local currency against the US dollar would improve, leading to an increase in growth.
- ❖ The Electronic Payment System Index (EPI) experienced growth at a decreasing rate, falling slightly to 72.6 (a decrease of 3.6 from the previous quarter's 76.2). This quarter's EPI value is the fourth highest in the history of the Ghana EPI. It is suggestive that the use of electronic payment systems drop slightly as the peak season of purchasing for the festive season gradually draws to a close. It is expected that the use of electronic payments within the logistics sector will grow steadily over the next twelve months as respondents predict an EPI value of 80.2.

IMPACT OF THE LMI

The Ghana Logistics Managers Index (LMI) provides essential insights into the dynamics of logistics activities nationwide and has been widely endorsed by senior managers across various Ghanaian organizations. On average, 325 managers participated in the quarterly LMI surveys, contributing valuable data on industry trends and developments. Respondent feedback underscores the LMI's significance, with many managers recognizing its role as a vital market intelligence resource that facilitates data-driven decision-making for operational planning and activities. Several organizations engaged in the LMI surveys have begun integrating survey updates into their regular meetings, with some even adopting it as a forecasting tool.

In addition to supporting evidence-based decision-making, approximately 16% of respondents indicate that the LMI has influenced policy changes within their organizations. These changes predominantly pertain to inventory management, forecasting, warehousing, and pricing. Furthermore, insights derived from the LMI have contributed to the formulation of procurement policies, purchasing strategies, and improved company projections. A manager at Imperial Logistics, a leading freight company in Ghana, stated, "The information from the Ghana LMI reports supports us in strategic decision-making and operational planning. It serves as a benchmarking tool that provides an aggregated view of trends across the industry." This perspective is widely shared among managers familiar with the LMI reports, highlighting its role in shaping both tactical and strategic decision-making.

RESULTS OVERVIEW

This report presents the results of the fourth quarter of 2024 survey, which is the 12th survey carried out since the inception of the Ghana LMI in March 2022. The results of the LMI continue to serve as predictive indicators of economic activities in Ghana as a whole. Figure 1.0 on the next page shows the Ghana LMI values from March 2022 (Q1) to the current quarter of December 2024.

In the fourth quarter of 2024, there was an increase in the overall LMI value to 66.8 from the previous quarter's 65.4 (up by 1.4). This is the third consecutive quarter where we have seen an increase in logistics growth since March 2024 and the second highest value in the history of the Ghana LMI. This quarter also produced the highest inventory level recorded at 66.0. In general,

Ghana's logistics activities are in growth mode as all metrics are above the 50% threshold. In spite of the rate of inflation and high cost of doing business, we are yet to record an overall LMI value that is below the threshold of 50 which is an indication that logistics activities have not contracted since March 2022 when the LMI study began. There was a difference of 2.7 between the overall LMI value for manufacturing (64.7) and service (67.4) firms, which is not quite significant. Upstream firms recorded a value of 66.5 and downstream firms recorded 67.9 (with a delta of 1.4).

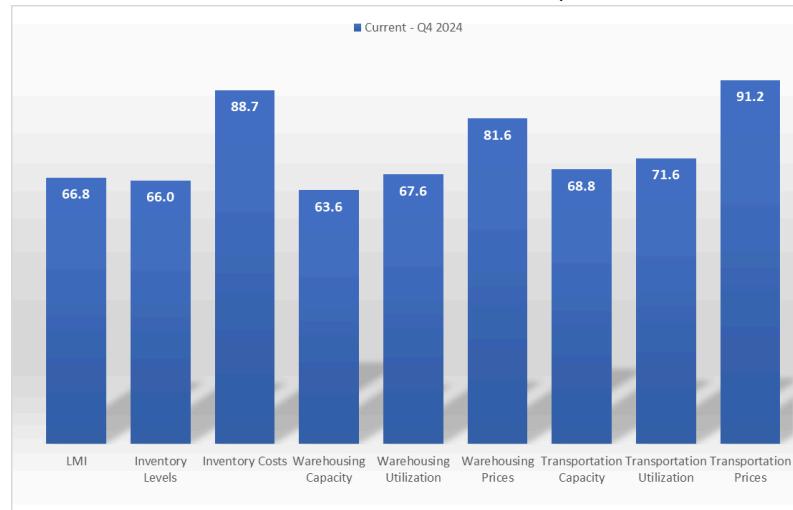


Figure 1.0: Values of LMI metrics for December (Q4) 2024

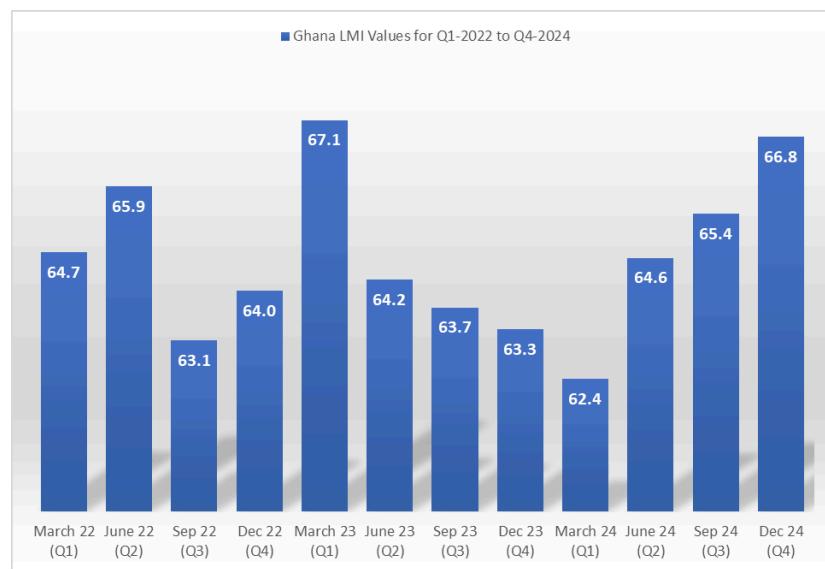


Figure 2.0: Ghana LMI values from March (Q1) 2022 to Dec (Q4) 2024

As earlier indicated, **inventory levels** experienced increasing growth this quarter registering a value of 66.0 (up by 1.4 from the previous quarter's 62.0). This quarter's inventory level is the highest recorded in the history of the Ghana LMI. The second highest value recorded occurred in the first quarter of 2022 and registered at 65.5 (see figure 2.0). The growth in inventory level, inventory costs, warehousing capacity and utilization is what boosted overall growth in the LMI index in December 2024. We are still seeing a significant increase in the growth of inventory levels at a period when national economic indicators seem to be at an all-time high. Ghana's inflation rose for the fourth straight month in December 2024 recording 23.8% from 23.0% in November 2024.

According to Reuters, this is the highest in the last eight months¹. This is nowhere close to the inflation target of 13 and 17 percent by December 2024 set by Ghana's Central Bank. Furthermore, the central bank aspires to see inflation dropping to a value between 6 and 10 percent by 2025². We believe the observed increase in inventory levels is as a result of speculative purchase to hedge against the risk of further depreciation of the Ghanaian cedi against the dollar as well as the seasonal ordering of inventory in large volumes in anticipation of increased demand during the Christmas holidays. The cedi is currently trading at 15.19³ cedis to the dollar (as of December 1, 2024), having appreciated slightly against the dollar. There is the expectation that this slight appreciation will continue in the new year.

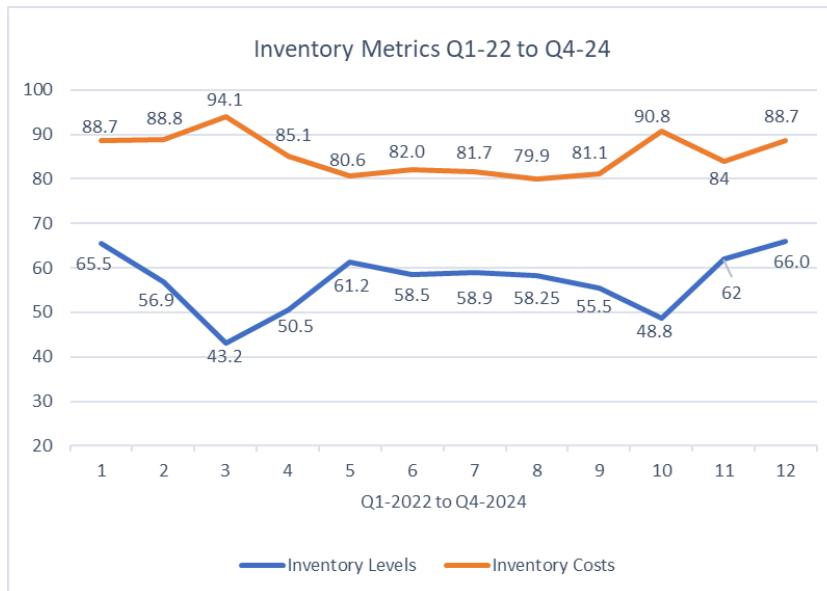


Figure 3.0: Inventory metrics from March (Q1) 2022 to Dec (Q4) 2024

The **inventory cost** metric registered a value of 88.7 (an increase of 4.7 points from the previous quarter's 84.0). This implies that goods have become slightly more expensive in the fourth quarter of 2024 compared to the third quarter. The increase in inflation (0.8 percent between November and December) is a key macro-economic indicator contributing to this increase in inventory cost. Respondents predict a shrinking of inventory costs in the next twelve months, to a value of 82.0 while inventory rises further to 81.9. It's quite early to predict how changes by Ghana's new government (e.g. proposed scraping of the e-levy bill) will impact the marketplace and how the LMI metrics will reflect these policy changes. We will continue to observe how logistics activities will be impacted in early 2025.

Warehousing capacity grew from 59.5 in Q3 2024 to 63.6 in the present quarter (up by 4.1). We found it interesting that at a time when inventory levels were increasing, warehousing capacity was loosening. This could be due to the commissioning of new warehouses that have added to the capacity of the metric. Looking at data from Q4-2024, downstream supply chains had experienced a greater loosening of warehouse capacity (70.9) compared to upstream supply chain actors (60.8).

¹

[https://www.reuters.com/world/africa/ghana-inflation-rises-fourth-straight-month-december-2025-01-08/#:~:text=ACCRA%2C%20Jan%208%20\(Reuters\)%20%2D%20Ghana%27s%20consumer,November%2C%20the%20statistics%20service%20said%20on%20Wednesday](https://www.reuters.com/world/africa/ghana-inflation-rises-fourth-straight-month-december-2025-01-08/#:~:text=ACCRA%2C%20Jan%208%20(Reuters)%20%2D%20Ghana%27s%20consumer,November%2C%20the%20statistics%20service%20said%20on%20Wednesday).

²

<https://www.reuters.com/markets/rates-bonds/ghana-central-bank-cuts-main-interest-rate-by-100-basis-points-2024-01-29/>

³ <https://www.bog.gov.gh/treasury-and-the-markets/daily-interbank-fx-rates/>

This makes sense as it's easier for downstream firms to increase warehouse capacity within a short notice compared to upstream firms.

Warehouse prices experienced growth at a decreasing rate from 84.7 in September to 81.6 in December (down by 3.1 points). **Warehouse utilization** also showed notable growth, rising from 65.4 in September (Q3) to 67.6 (up by 2.2 points) in December (Q4). This increase is largely attributed to higher utilization rates among downstream firms, mainly retailers, which reached 75.0 this quarter, compared to a utilization rate of 66.3 recorded by upstream firms.

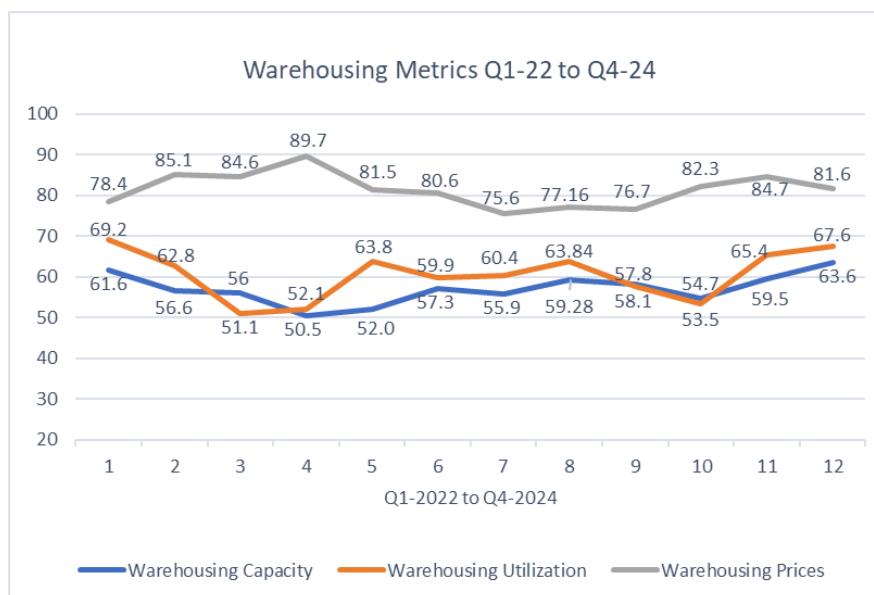


Figure 4.0: Warehousing metrics from March (Q1) 2022 to Dec (Q4) 2024

The **transportation price** according to this quarter's survey slightly declined to 91.2 (down by 1 point from the previous quarter's 92.2). The key trigger to this slowed down growth is due to the reduction in the price of fuel by Oil Marketing Companies in September and December 2024. The price per liter of petrol and diesel was reduced by an average of GH 0.25 cedis (2 percent decrease) for petrol and GH 0.30 cedis (5 percent decrease) for diesel⁴ in response to significant drops in the prices of refined fuel on the international fuel market. Furthermore, there were significant fuel price reductions over the second pricing window for December 2024 as some of the major Oil Marketing Companies (e.g. Shell) reviewed their prices downward with a liter of petrol selling at GH14.99 (down from GH15.30) while diesel sold at GH15.66 (down from GH15.72)⁵. There are indications that this trend of falling fuel prices may continue in early 2025. The transportation metric seems to have the greatest effect on the overall LMI value and reached its highest value of 97.1 in September 2022 (Q3).

The **transportation capacity** metric registered a considerable drop recording a value of 68.8 (down by 8.8 from the previous quarter's 77.6). In general, there seems to be a tightening of supply chains as indicated by the reduction in this metric. There was also a slight drop in the **transportation utilization** metric, which registered a value of 71.6 from the previous quarter's value of 72.0.

⁴ <https://www.myjoyonline.com/prices-of-petrol-diesel-lpg-to-decrease-between-2-and-5-ies/>

⁵ <https://www.ghanaweb.com/GhanaHomePage/business/Fuel-prices-reduce-at-the-pump-1964512>

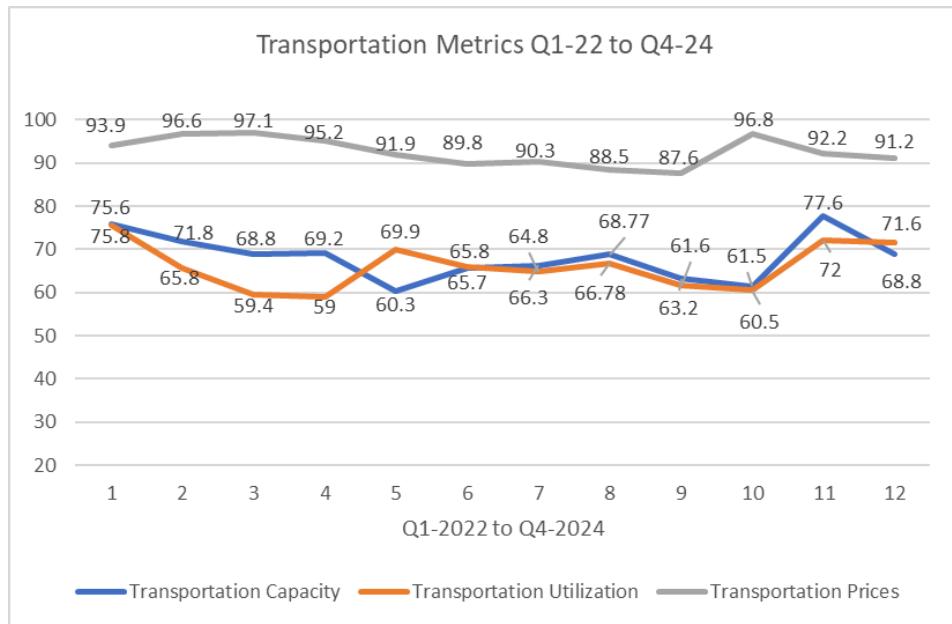


Figure 5.0: Transportation metrics from March (Q1) 2022 to Dec (Q4) 2024

Aggregate Logistics Costs

Aggregate logistics cost is derived by summing up the three cost metrics (i.e., inventory cost, warehousing cost and transportation cost). With a threshold value of 150, it gives an indication of the logistics cost profile for each quarter. Figure 6.0 shows the aggregate logistics costs for Ghana for the fourth quarter of 2024, recording a value of 261.5 (which is almost the same as the previous quarter's value of 260.9). There seems to be a leveling up in total logistics cost but it remains to be seen if this trend continues in 2025. Even though we see a slowing down of growth in aggregate logistics cost, logistics cost in Ghana is high and 111.5 points above the threshold of 150. This metric is directly linked to macro-economic factors affecting the country including cost of doing business, GDP, fuel prices and inflation. The current growth in inflation seems to inhibit aggregate costs from decreasing at a higher rate.

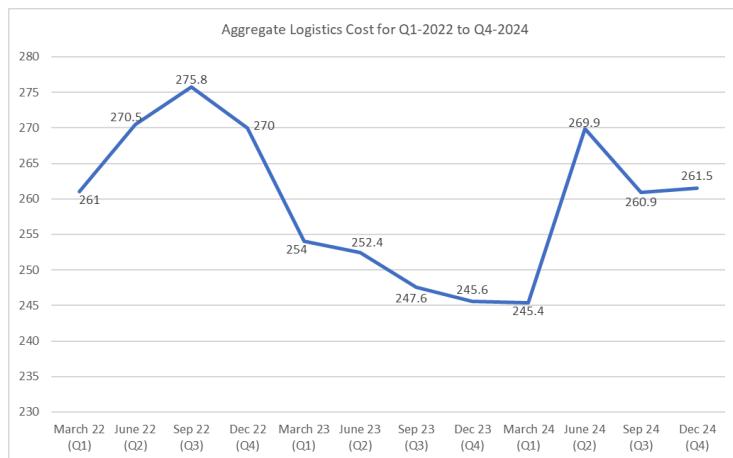


Figure 6.0: Aggregate logistics costs from March (Q1) 2022 to Dec (Q4) 2024

FOURTH QUARTER 2024 OBSERVATIONS

Overall LMI

The overall LMI metric for Ghana in the fourth quarter of 2024 increased by 1.4 points, registering a value of 66.8 compared to the previous quarter's (Q3 2024) value of 65.4. This increasing growth can be attributed to an appreciation of growth in both inventory metrics with inventory levels registering at 66.0 (up by 4) and inventory cost registering at 88.7 (up by 4.7). Warehouse capacity (registered at 63.6 and up by 4.1) and warehouse utilization (registered at 67.6 and up by 2.2) were contributing factors to the general growth observed in the overall LMI.

All other metrics experienced decreasing growth with warehousing prices at 81.6 (down by 3.1), warehousing capacity at 68.8 (down by 8.8), transportation utilization at 71.6 (down by 0.4) and transportation prices (down by 1). We also observed aggregate logistics cost to be almost steady (from 260.9 to 261.5). All metrics were in the growth category with half of the metrics registering increasing growth while the other half registered decreasing growth.

The index scores for each of the eight components of the Logistics Managers Index, as well as the overall LMI score for the third quarter of 2024, are presented in Table 1.0. There were no extremes in the values of the metrics with all the registering values above the threshold of 50%, which implies a growth in logistics activities. This however seems to be a slowed growth as inflation continues to threaten growth of logistics activities coupled with the consistent high cost of doing business and depreciation of the local currency on the forex exchange. Respondents anticipate that the growth observed in the logistics sector will continue over the next 12 months and predict an LMI value of 68.9. This prediction is slightly higher than the third quarter prediction of 64.0.

Table 1.0: LMI Values for Ghana for Dec (Q4) 2024 and Sep (Q3) 2024

LOGISTICS AT A GLANCE – Q4 2024					
Index	Dec 2024 Index (Q4)	Sep 2024 Index (Q3)	Quarter-Over-Quarter Change	Projected Direction	Rate of Change
LMI®	66.8	65.4	1.4	Growing	Increasing
Inventory Levels	66.0	62.0	4	Growing	Increasing
Inventory Costs	88.7	84.0	4.7	Growing	Decreasing
Warehousing Capacity	63.6	59.5	4.1	Growing	Increasing
Warehousing Utilization	67.6	65.4	2.2	Growing	Increasing
Warehousing Prices	81.6	84.7	-3.1	Growing	Decreasing
Transportation Capacity	68.8	77.6	-8.8	Growing	Decreasing
Transportation Utilization	71.6	72.0	-0.4	Growing	Decreasing
Transportation Prices	91.2	92.2	-1	Growing	Decreasing

Historic Logistics Managers Index Scores

The reading for the fourth quarter 2024 index along with readings from the previous ten quarters of the LMI are presented in table 2.0. The LMI index registered an all-time average of 64.60; an all-time high of 67.1; and all-time low of 62.4 and a standard deviation of 1.46. The overall LMI index has consistently been in growth mode and fluctuations in its value have mostly come from fluctuations in the values of the logistics costs metrics (inventory cost, warehousing prices and transportation prices) as well as varying inventory level over the past quarters. The highest warehousing price was recorded in the fourth quarter of 2022 at 89.7 while the highest transportation price index was recorded in the third quarter of 2022 registering at 97.1. The lowest inventory level was recorded in the third quarter of 2022 (registered at 43.2 with an associated inventory cost of 94.1).

Table 2.0: Historic Logistics Managers Index Scores from March (Q1) 2022 to December (Q4) 2024

Quarter	LMI Values	
December (Q4)	66.8	All-time Average – 64.60 High – 67.1 Low – 62.4 Std Dev – 1.46
September (Q3) - 2024	65.4	
June (Q2) - 2024	64.6	
March (Q1) - 2024	62.4	
December (Q4) - 2023	63.3	
September (Q3) - 2023	63.7	
June (Q2) - 2023	64.2	
March (Q1) - 2023	67.1	
December (Q4) - 2022	64.0	
September (Q3) - 2022	63.1	
June (Q2) - 2022	65.9	
March (Q1) - 2022	64.7	

Downstream and Upstream Activities

The differences between observations made for firms downstream (orange-colored bars in figure 7.0) and those upstream (blue colored bars in figure 7.0) are insignificant for all metrics with the exception of inventory levels (delta of 13.7), warehousing capacity (10.1) and warehousing utilization(delta of 8.7) where downstream firms were marginally higher values than upstream firms. We often expect to see a balance between these two groups. On average, downstream firms reported slightly higher values than upstream firms for all the metrics in the fourth quarter (with the exception of inventory costs albeit quite insignificant). The observation recorded for upstream firms often serves as an indicator of what is happening in the supply chain before it gets to downstream partners and this quarter's observation indicates a slowing down of inventory upstream. Even though inventory stocks by downstream firms are on the increase, this might not be the case in the next quarter. It will not be surprising to see contracting inventory levels downstream as indicated by lower inventory levels among upstream partners this quarter.

Table 3.0: Upstream and Downstream values for Dec (Q4) 2024

Downstream vs. Upstream Values – Q3 2024				
Index	Downstream Values	Upstream Values	Delta	Significant?
LMI®	67.9	66.5	-1.4	No
Inventory Levels	76.6	62.9	-13.7	Marginal
Inventory Costs	84.8	88.8	4	No
Warehousing Capacity	70.9	60.8	-10.1	Marginal
Warehousing Utilization	75.0	66.3	-8.7	Marginal
Warehousing Prices	85.1	81.1	-4	No
Transportation Capacity	75.3	67.7	-7.6	Marginal
Transportation Utilization	77.6	70.2	-7.4	Marginal
Transportation Prices	90.5	91.5	1	No

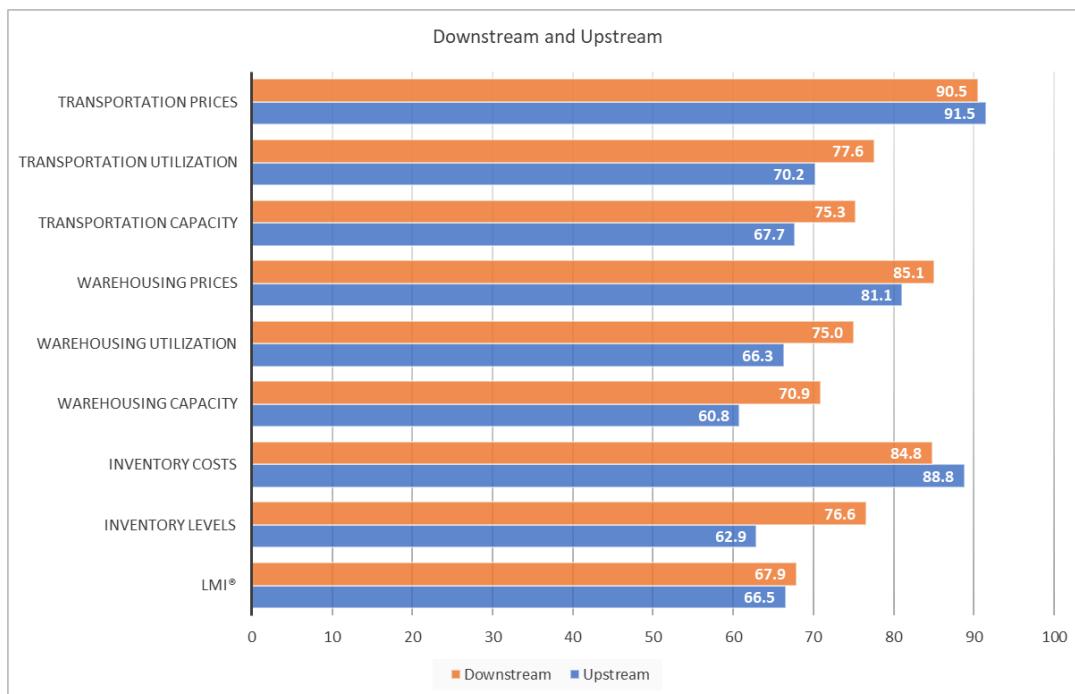


Figure 7.0: Downstream and Upstream values for Dec (Q4) 2024

Manufacturing vs Service Sector Activities

In general, there was no significant difference between values for manufacturing firms and service firms. However, manufacturing firms registered a marginally higher value for the warehousing capacity metric. For all other metrics service firms registered slightly higher values which were insignificant. The overall LMI value for the manufacturing sector was 64.7, while that for the service sector was 67.4 (see figure 8.0 and table 4.0). This quarter's survey responses included 83.3 percent from the service sector and 16.7 percent from the manufacturing sector (figure 8.0). The observations for results of the previous quarter (Q3) were similar, with the overall LMI for the manufacturing sector registering 65.4 while the service sector registered 65.3.

Table 4.0: Values for Manufacturing and Service Sectors, (Dec Q4) 2024

Values for Manufacturing and Service Sectors – Q3 2024				
Index	Manufacturing Values	Service Values	Delta	Significant ?
LMI®	64.7	67.4	2.7	No
Inventory Levels	64.6	66.7	2.1	No
Inventory Costs	84.7	89.3	4.6	No
Warehousing Capacity	70.1	61.5	-8.6	Marginal
Warehousing Utilization	71.1	67.2	-3.9	No
Warehousing Prices	81.6	81.8	0.2	No
Transportation Capacity	69.4	69.1	-0.3	No
Transportation Utilization	70.4	71.9	1.5	No
Transportation Prices	84.7	93.1	8.4	No

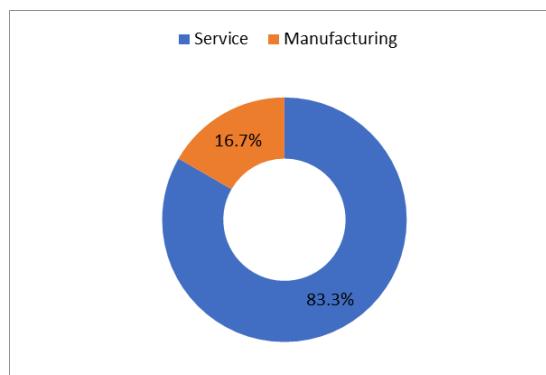


Figure 8.0: Percentage of respondents from manufacturing and service industries, Dec (Q4) 2024

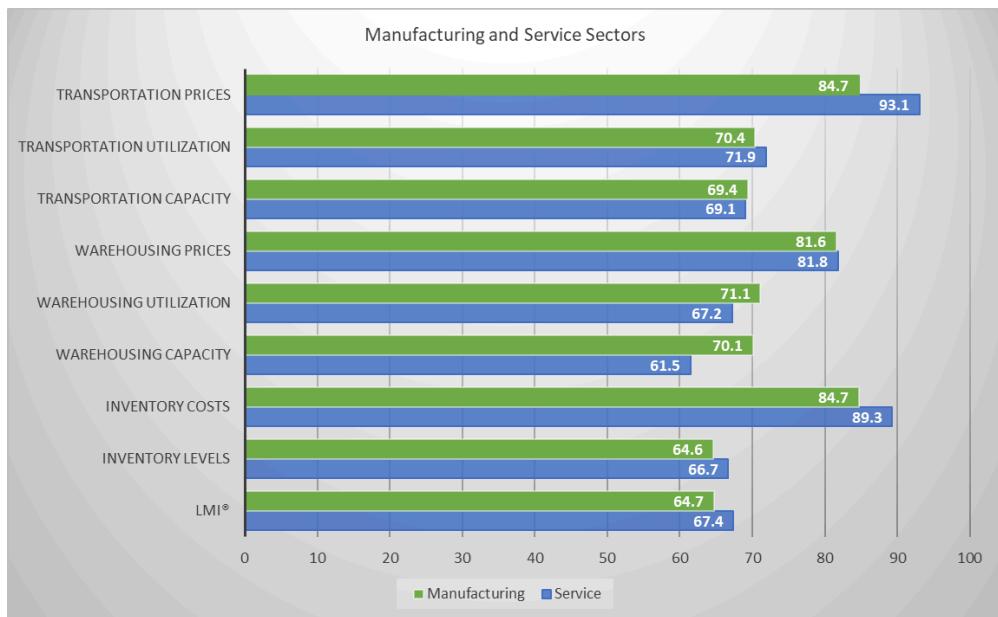


Figure 9.0: Values for manufacturing and service sectors, Dec (Q4) 2024

PREDICTIONS

A key aspect of the LMI study focuses on gauging the expectations of respondents for the future. We asked respondents to predict the movement in the overall LMI and individual metrics, 12 months from now. The predictions made in this quarter present seemed to be more positive than that of the previous quarter (as seen in table 5.0 and figure 8). The current LMI value is predicted to steadily increase to 68.9 compared to last quarter's prediction of 67.0. Similar to previous predictions, respondents generally expect inventory levels to build up and predict values of 81.9 in the next twelve months) and inventory costs to contract to 76.0. With warehouse metrics, respondents predict that warehousing prices will drop to 78.5; warehousing capacity will rise to 69.6 while warehousing utilization also increases to 83.9. Respondents also anticipate that transport capacity will increase to 75.5 (similar to last quarter's prediction). Respondents expect transport utilization to increase to 85.3, while the transportation price metric is expected to drop to 84.4. In general, respondents generally predict that the growth of the cost metrics (inventory cost, transportation price and warehouse price) will slow down over the next 12 months, while inventory levels and the utilization metrics (transport and warehousing) increase.

Table 5.0 shows the predicted values for all eight metrics from this quarter's survey (December 2024) and figure 10.0 compares both current and predicted values for September 2024.

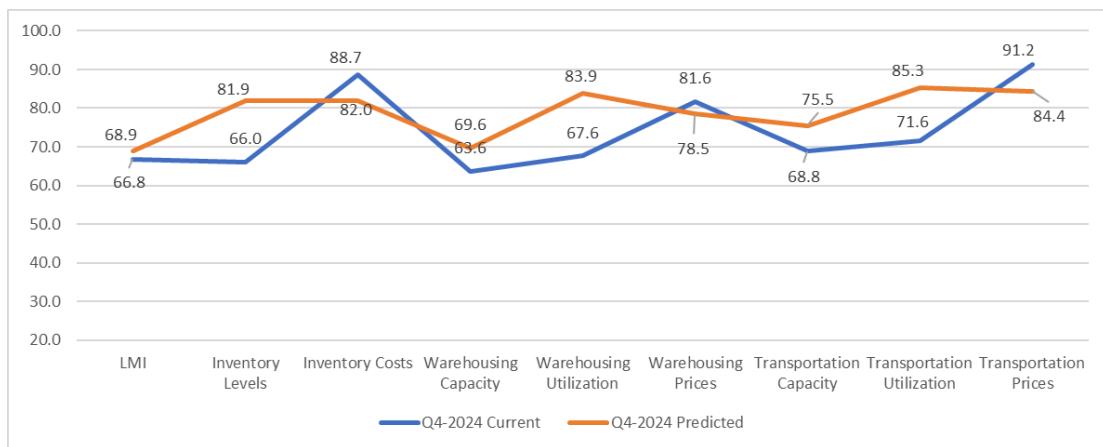


Figure 10.0: Current and Predicted Values – Dec (Q4) 2024

Table 5.0: Comparing Sep (Q3) predictions with that of Dec (Q4) 2024

LOGISTICS AT A GLANCE – Predicted Values (Q3 2024 and Q4 2024)		
Index	Sep 2024 - Predicted	Dec 2024 - Predicted
LMI	64.0	68.9
Inventory Levels	73.8	81.9
Inventory Costs	76.0	82.0
Warehousing Capacity	71.4	69.6
Warehousing Utilization	76.6	83.9
Warehousing Prices	76.8	78.5
Transportation Capacity	75.7	75.5
Transportation Utilization	76.9	85.3
Transportation Prices	79.0	84.4

Upstream and Downstream (Predicted)

Similar to the main predictions by the respondent firms, there was no significant difference in the disaggregated predictions between downstream retailers (represented by orange colored bars in

figure 11.0) and upstream firms (represented by blue colored bars in figure 11.0). The difference in prediction for the overall LMI index between downstream and upstream firms is 5 points. This is mainly due to the fact that downstream retailers in general expect to see slightly higher levels of growth in warehouse capacity (81.4 against 67.4) for upstream firms and transportation capacity (80.8 against 73.7 for upstream firms).

Upstream firms on the other hand expect to see inventory levels continue to build at a higher rate (83.9 against 75.6) over the next 12 months, more than downstream firms. The same is observed for inventory costs (80.7 against 78.5) and transportation prices (84.7 against 79.1). There is not much difference in values for the other predicted metrics.

Table 6.0: Predicted Upstream and Downstream Values – Dec (Q4) 2024

Predicted Upstream vs. Downstream Values – Q4 2024				
Index	Predicted Downstream Values	Predicted Upstream Values	Delta	Significant?
LMI®	64.5	69.5	5	No
Inventory Levels	75.6	83.9	-8.3	No
Inventory Costs	78.5	80.7	-2.2	No
Warehousing Capacity	81.4	67.4	14	Marginal
Warehousing Utilization	84.9	84.6	0.3	No
Warehousing Prices	77.0	77.7	0.7	No
Transportation Capacity	80.8	73.7	7.1	Marginal
Transportation Utilization	84.0	85.6	1.6	No
Transportation Prices	79.1	84.7	5.6	No

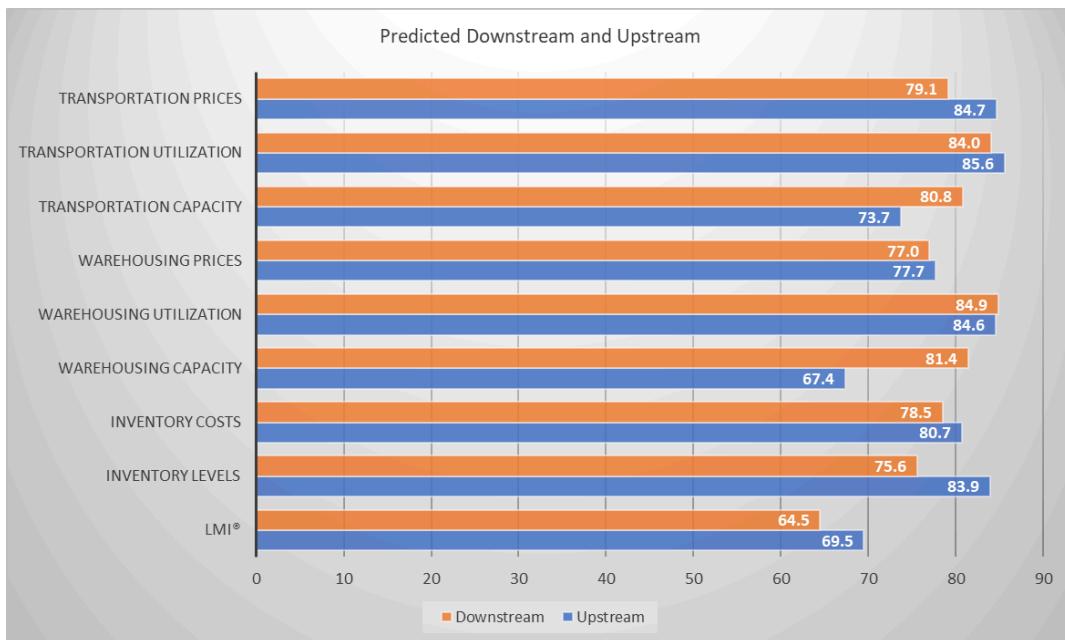


Figure 11.0: Predicted Downstream and Upstream Values – Dec (Q4) 2024

ELECTRONIC PAYMENT SYSTEMS INDEX

The **Electronic Payment Systems Index (EPI)** tool measures the usage of electronic payment systems. E-payment systems have seen much growth since the government introduced the Digital Ghana Agenda⁶, which seeks to improve economic inclusiveness through technology. This accelerated the development of fintech and the use of mobile payment systems. The use of e-payment systems also increased post-covid with many in Ghana opening up to the use of contactless methods of financial engagement. All this has had a positive effect on logistics transactions and the EPI aims at measuring the extent of adoption of digital payment systems spanning mobile money transfers (e.g. MoMo in Ghana and M-Pesa in Kenya) to electronic bank transfers in the logistics sector. The EPI was introduced in the second quarter of 2022 and is similar to the LMI and is also developed as a diffusion index with a threshold of 50%. Respondents were asked about the extent to which their organization utilizes mobile money transactions and e-payment systems when dealing with customers and/or suppliers. Respondents were also asked about their company's use of mobile money and e-payment platforms in terms of their decline, steady state or increase.

The EPI for the fourth quarter of 2024 registered a value of 72.6 from the previous quarter's 76.2 (a drop of 3.6), as indicated in figures 12.0 and 13.0. The EPI has been quite steady, registering in the low 70s (with the exception of Q3-2025 which registered a value of 76.2). In general, there is still a positive outlook in relation to the use of e-payment systems in the logistics industry. Moreover, respondents predict greater growth for this index in the next twelve months (up to 80.2). This prediction might very well come true as the new government has proposed repealing the e-levy which taxed electronic transfers at 1.5%⁷. This is partly the reason why the EPI registered its lowest value in the third quarter of 2023 when the index dropped to a value of 61.0. That period was

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<https://moc.gov.gh/ministers-press-briefing-communications-ministry-makes-strides-in-ghanas-digital-transformational-age-nda/#:~:text=%E2%80%9CThis%20simply%20means%20that%20Ghanaian%20subscribers%20of,also%20be%20exempt%20from%20international%20roaming%20charges.%E2%80%9D>

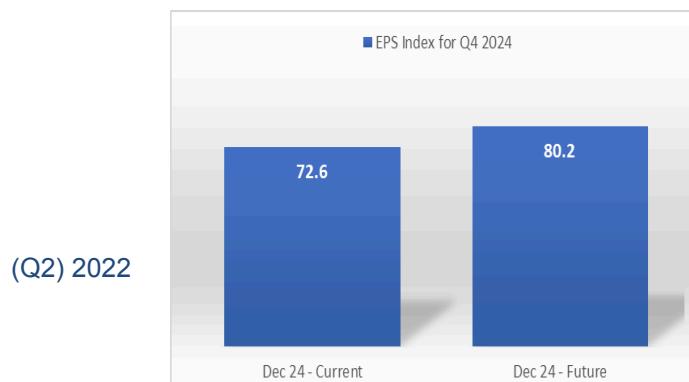
⁷ <https://mofep.gov.gh/about-mof/e-levy-faq>

generally marked by a high inflation and soaring business cost described as 'a time of fiscal distress'⁸ coupled with the introduction of the e-levy in May 2022.



Figure 12.0:
predicted

Current and
values for the



(Q2) 2022

Figure 13.0: EPI values for June
to Dec (Q4) 2024

⁸ <https://theconversation.com/ghanas-e-levy-3-lessons-from-the-abolished-mobile-money-tax-253285>

About This Report

The Logistics Managers Index (LMI) is a tool developed by researchers at the Centre for Applied Research and Innovation in Supply Chain – Africa (CARISCA), based at Kwame Nkrumah University of Science and Technology (KNUST), for Ghanaian businesses and policymakers. The LMI reports are based on quarterly surveys conducted with industry leaders in Ghana. The study is led by Emmanuel Kweku Quansah (PhD), Nathaniel Boso (PhD), and David Antwi (PhD). CARISCA wishes to acknowledge the support of the Chartered Institute of Logistics and Transport (CILT) and the Chartered Institute of Procurement and Supply (CIPS).

The calculated LMI for Ghana, along with the accompanying analysis of its components, provides useful insights for the government of Ghana, business decision-makers, market analysts and investors, as it offers a predictive indication of overall economic activity in the country. The LMI report is made available quarterly at <https://carisca.knust.edu.gh/LMI>. Senior supply chain (including logistics, operations and procurement) managers of businesses in Ghana are invited to participate in the quarterly LMI surveys by visiting: <https://www.surveymonkey.com/r/Q1-25-LMI>

The LMI measures the growth or decline of Ghana's logistics industry along three components: inventory, warehousing and transportation activities. The LMI for Ghana study utilizes eight metrics across the three components to capture Ghana's logistics activities. The index measures combinations of inventory, warehouse and transportation activities and tracks the relationship between these variables to make inferences about their effects on the broader Ghanaian economy.

An index score is calculated for each of the eight components, and an overall index score (i.e., an LMI value) is then calculated as a composite of these components. This approach is an effective and reliable way to identify prevailing trends in logistics activities. Due to its predictive nature, the LMI is also a useful tool for forecasting future trends in a modern economy (Rogers et al., 2019).

Data and Methodology

Data for the Logistics Managers Index for Ghana are collected in quarterly surveys. Respondents for the study include senior logistics, supply chain and procurement executives and managers in the formal sector of the Ghanaian economy. Senior executives and managers are most likely to have macro-level information on inventory, warehousing and transportation trends in their organizations. Data is also collected from professional members of the Chartered Institute of Logistics and Transport (CILT) and the Chartered Institute of Procurement and Supply (CIPS). Members of these professional bodies in Ghana tend to hold senior management positions in their organizations.

To ensure that the LMI value for Ghana is a true reflection of logistics activities in the Ghanaian economy, the respondents for this study were required to be working for organizations that operate in Ghana. Multiple industries were represented in the respondent pool: automobile and parts, telecommunications, shipping and transport, agriculture and agribusiness, manufacturing, mining, pharmaceuticals, industrial services, oil and gas/petroleum, and machinery and equipment.

A total of 311 valid responses were used for the Q4 2024 report.

The Diffusion Index

The LMI for Ghana is calculated using the diffusion index. The diffusion index is used to calculate other widely accepted indexes, such as the Purchasing Managers Index (PMI) and the USA LMI. This index gives an indication of whether the metric being evaluated is contracting or growing.

Values below 50.0 suggest a contraction, while values above 50.0 suggest growth in an activity (Getz and Ulmer, 1990). Diffusion indexes are used to measure how widely a variable is spread across a group. The Institute for Supply Management (ISM) has been using the diffusion index to compute the Purchasing Managers Index since 1948. In keeping with the approach by Rogers, et al. (2018) and ISM, we computed the diffusion index as follows: DI: $0.0 * PD + 0.5 * PU + 1.0 * PI$ Where PD = % of respondents saying a category is declining, PU = % of respondents saying a category is unchanged, and PI = % of respondents saying a category is increasing.

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The Logistics Managers Index (LMI) for Ghana makes no representation other than that stated in this release regarding the individual company data-collection procedures. The data should be compared to all other economic data sources when used in decision-making.

To participate in the LMI survey, go to <https://www.surveymonkey.com/r/Q1-25-LMI>



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