# Optimizing Distribution Channels for Packaged Food Products: A Case Study of Consumer Goods Industry in Oyo State, Nigeria


## Abstract

This study investigates the effectiveness of distribution channels for Indomie instant noodles in Oyo State, Nigeria, to increase product availability and reduce distribution costs. Utilizing a quantitative research design, quantitative data from 615 respondents, including members of staff of Dufil group Nigeria Plc, distributors, wholesalers, and sales representatives, combined with regression analysis, indicates that there is effectiveness in ascertaining that products reach their consumers in time at minimal costs through the producer-distributor-wholesaler-retailer-consumer channel. Significant elements of costs include transport, time taken for delivery, and infrastructural difficulties, with a case in point as poor road networks increase the cost of distribution. This study recommends strategic implementations such as the direct delivery system, integration of Information Communication Technology, and company-owned logistics to improve the efficiency of distribution, reduce costs, and ensure that customers are satisfied with the service rendered by the company. These upgrades can be used to further strengthen the position of Indomie instant noodles as the leading noodle brand in Nigeria.



**Keywords**: Distribution Channels, Packaged Food Products, Indomie Instant Noodles, Supply Chain Efficiency and Cost Minimization




## Introduction

Distribution is critical in marketing, where products are moved to reach consumers effectively. Lang et al., (2023) held that it played a significant role not only in making sure that the consumers receive the products but also moves raw materials to result in consumer satisfaction. Rushton, Croucher, and Baker (2022) defined it as the effective movement of goods from production to consumption. This improves the quality of service while keeping the cost of the same at a minimum. This holistic approach includes goods and services, and information flows in manufacturing and services. Production and consumption are at the very core of economic systems, and each depends on the supply and demand of the other. When there is a disequilibrium between production and consumption, market failures occur: the first situation causes waste and a lowering of prices, while the latter brings about shortages and an increase in prices (Rodrigue, 2006). This makes the distribution sector critical in allowing and ensuring a harmonious flow of goods between the production and the consumption environment.

The nature of business environments has experienced great dynamism because of the technological revolution, which means that customer demands have become more sophisticated and, therefore, there is a need for companies to ensure that they deliver the right products at the right time and in the right quantities if they are to continue benefitting from competitive advantages (Allegra, Bellia, &Zarbà, 2014). Competitive pressures on the market, therefore, compel companies to review their distribution strategies to ensure minimum cost and optimum customer satisfaction. The physical and legal paths that products take to move from production to consumption are complex, and they feature several stakeholders and processes (Dutilhet al., 2017).

To this effect, the current global boom in population has presented expanded markets, forcing businesses to remodel their distribution methods to suit many consumers worldwideas the world's population, which numbered around 7.8 billion in 2020, has been growing rapidly and expected to continue to grow in the coming decade (United Nation, 2021). The uneven distribution of resources and mounting demographic pressures foreground that, indeed, effective distribution systems are needed in managing increasing inter-regional interactions (Pu, 2021). Under such variable market conditions, particularly in this information technology era, businesses are increasingly compelled to constantly reassess their distribution channels to find a flourishing stand in such dynamic markets. However, just distribution is essential to bridge the gap between production and consumption.Global population growth and technological advancement are two things that keep happening, i.e., major part of population increase is due to the technological bias evolution between land and capital(Claire and Bertrand, 2019) and these two things have eliminated the distance between different geographical areas because high population spurs technological change (Coccia, 2014). As a result, there is an outstanding need for a distribution plan capable of taking care of the extensive coverage of products. Today's distribution systems also need to be flexible to accommodate new products or emerging requirements in the market. Systems already in place to support either a new or an existing product might not be good enough without being re-evaluated and tweaked occasionally.

There are some elements of complexity for the distribution of packaged food products, including Indomie instant noodles which are influenced by distance,costsand probably product and then market characteristics (Ma, & Wang, 2023, Arzani et al., 2021)though it is quiet different from agricultural products because of its package and shelf of life as it is not

highly perishable as in the case of agricultural food items such as pepper, yam, potatoes, plantain, vegetables and the likes. Misalignment in these areas will significantly impact the accessibility, availability, and general market efficiency of a product. Indeed, distribution costs play a particularly critical role in pricing because of the context where lower expenses of distribution can provide a competitive edge (Khoubseresht&Shayanfar, 2020). Although much research has been directed at the distribution of agricultural products, little interest has been accorded to processed foods like Indomie instant noodles, which have considerably different characteristics because of their packaging and long shelf life. This is a missing link in terms of the need for complete and thorough research on the packaged food items' distribution channels and what it implies in terms of cost, reach, and efficiency in reaching consumers. As a result, this research aims atoptimizing the distribution channels for packaged foodproduct (IndomieInsant Noodles) in Oyo State, Nigeria by:

- Identifying the existing distribution channels of Indomie instant noodles.
- Assessing the distribution rate of Indomie instant noodles into Oyo State.
- Analysing the relationship between distance andcost of distributing in Oyo State.
- Examining the interplay between distribution costs and the choice of distribution channels.

## 2. Literature Review

Literatures on the distribution of goods and services includes factors affecting cost and efficiency. According to Pahwa and Jaller(2023), the level of cost can be highly reduced through direct delivery methods within organizations. They recommend that more organizations should consider direct delivery to reduce both the cost of distribution and capital locked up in inventory. In addition, they advise that transportation planning should be done; the state of roads and how they affect transport pricing should be noted. They also present the advantages of outsourcing the whole distribution system to outside transport operators. This will enable efficient product distribution, especially in cross-docking and direct delivery strategies. It will also help the company to redeploy the investment done in the distribution system to other supply chain elements.

Akerele et al., (2023) further explained that these are infrastructural challenges: road networks in poor conditions, inadequate transport facilities, and a lack of credit facilities. All these significantly disrupt the smooth distribution of products in the State of Oyo, Nigeria.

They argue that road infrastructure and accessibility need to be improved, especially when considering rural areas. This would require government intervention to ensure healthy competition in distributing products in a way that enhances living standards for the citizens.

Achrol and Kotler, (2022) and Guru et al. (2023) defined physical distribution as the tasks associated with planning, controlling, and managing a physical supply of materials and finished goods from points of origin to points of consumption. The procedure is done with the customers' satisfactory needs met, and the company profits. According to Babalola(2023), there are significant consequences in case the delivery of goods is not made on time; companies could lose clients due to a lack of timely deliveries.Xu (2020) further affirmed that the information flow in supply chain process has broken the limitation of time and space that information can be directly shared among customers, suppliers, subcontractors, vendors, producers, etc

The Conceptual Framework of the study is represented below in Figure 1. It attempts to close this particular gap in the literature on food products, including packaged foods such as Indomie Instant Noodles, where the quantification of how the independent variables(distance, delivery time, and transport cost) affect the dependent variable (total distribution cost) of a food product has not been done in any known studies. The current study fills this gap by incorporating such crucial variables in the distribution cost analysis, and their influences are tested for the distribution channel selection. Distribution costs have been emphasized as a principal driver in choosing the distribution channel; thus, its importance in the strategic distribution planning.

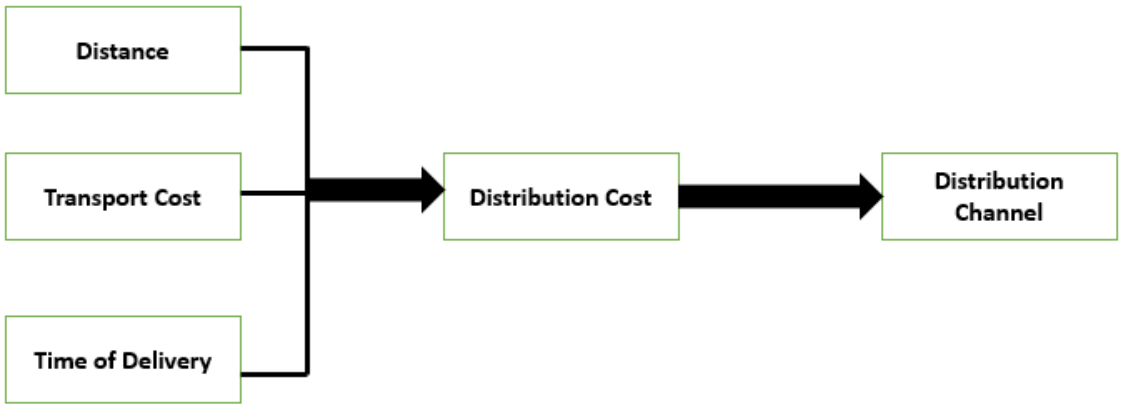


**Figure 1:Conceptual framework**

## 3. Methodology

The research focused on distributing Indomie instant noodles from Sango-Ota, Ogun State, to other parts of Oyo State. The study population comprised employees of the Distribution department of the Dufil Group and intermediaries, that is, distributors, sales representatives, and wholesalers of the Indomie instant noodles in Oyo state. Simple random sampling technique was adopted in selecting6 local government areas from the total number of 33 local government areas in Oyo State.The selected 6 local government areas captured all the senatorial districts that has been stratified into 3. The sample size therefore includes 100 distributors, 100 sales representatives, 400 wholesalers within the designated areas, and 113 distribution department staff members of the Dufil Group. This makes a total of 713 respondents. Though 615 questionnaires were duly filled and returned which represents 86.25% of the sum of the respondents

The data collected was from both primary and secondary data sources. The primary data were collected through direct interviews (to corroborate the answers from the questionnaire) and questionnaires administered to the personnel of Dufil Group Nig. PLc, distributors, sales representatives, and wholesalers. The respondents had all relevant records, such as invoices and waybills. The respondents were asked questions about distribution channels, lead times, and order frequencies. Secondary data were obtained from publications of the Dufil Group.

The analysis was done using descriptive and inferential statistics. Descriptive statistics in this study were expressed via frequency distributions. Inferential statistics analysis includes multiple regression analysis; it was meant to explain relationship between distribution cost and distance and then the relationship between distribution cost and adopted distribution channel.

## 4. Results

Table 1 findings indicate varying preferences for distribution channels of Indomie instant noodles: 14.8% of respondents are of the opinion that the producer-distributor-consumer channel is in use, 3.4% indicated that the existing channel is producer-wholesaler-consumer, 19.7% affirmed that producer-distributor-retailer-consumer is the most preferred channel, 11.9% attested to the adoption of producer-wholesaler-retailer-consumer while 50.2% statedthat producer-distributor-wholesaler-retailer-consumer is the most suitable channel.

**Table 1: Distribution channel adoption**

| | Frequency | Percent |
|---|---|---|
| Middlemen's distribution channel | | |
| producer-distributor-consumer | 91 | 14.8 |
| producer-wholesaler-consumer | 21 | 3.4 |
| producer-distributor-retailer-consumer | 121 | 19.7 |
| producer-wholesaler-retailer-consumer | 73 | 11.9 |
| producer-distributor-wholesaler-retailer-consumer | 309 | 50.2 |
| Total | 615 | 100 |

Source: Field survey, (2024)

The highest lead time of products as indicated by table 2 is 72 hours as accounted for by 44.07% which implies that when an order is placed to the company, the order is gotten within two days, 37.07% agreed to 24 hours and 12.03% attested that order can reach them within 72 hours while 6.83% of the middlemen reported that they do get their order after 72 hours, it was also observed that 35.93% of the middlemen distributing Indomie instant noodles travelled between 21-50km to supply order, 18.70% covered a distance of 51-80km, 16.60% covered a distance of 81-110km, 14.63% covered a distance of 111-140km, 10.24% covered a distance of 141-170km while 3.90% travelled a distance of above 170km. The highest distance coverage of the middlemen is between 21-50km as accounted for by 35.93%.

**Table 2: Average lead time of indomie instant noodles and average distance coverage of middlemen (km)**

| | Frequency | Percent |
|---|---|---|
| Average lead time of indomie instant noodles | | |
| 24 hours | 228 | 37.07 |
| 48hours | 271 | 44.07 |
| 72hours | 74 | 12.03 |
| Above 72 hours | 42 | 6.83 |
| Total | 615 | 100 |
| | | |
| Average distance coverage of middlemen (km) | | |
| 21-50 | 221 | 35.93 |
| 51-80 | 115 | 18.70 |
| 81-110 | 102 | 16.60 |
| 111-140 | 90 | 14.63 |
| 141-170 | 63 | 10.24 |
| Above 171 | 24 | 3.90 |
| Total | 615 | 100 |

Source: Field survey, (2024)

According to Table 3, distribution cost among middlemen varies: 13.8% spent between 8001 to 10000 naira, 19.5% spent between 10001 to 12000 naira, 43.6% spent between 12001 to 14000 naira, and 23.1% spent over 14001 naira. The majority, thus, spent between 12001 to 14000 naira on the average. For transport cost, 11.2% of middlemen spent below 5000 naira, 13.3% spent5001 to 8000 naira, 32.7% spent8001 to 11000 naira, 23.6% spent11001 to 14000 naira, and 19.2% spentabove 14,000 naira.

**Table 3 Average distribution cost incurred by middlemen men**

| | Frequency | Percent |
|---|---|---|
| Distribution cost incurred by middlemen men(N) | | |
| 8001-10000 | 85.0 | 13.8 |
| 10001-12000 | 120.0 | 19.5 |
| 12001-14000 | 268.0 | 43.6 |
| 14001 and above | 142.0 | 23.1 |
| Total | 615 | 100 |
| Average transport cost incurred by middlemen men | | |
| Below 5000 | 69.0 | 11.2 |
| 5001-8000 | 82.0 | 13.3 |
| 8001-11000 | 201.0 | 32.7 |
| 11001-14000 | 145.0 | 23.6 |
| 14001 and above | 118.0 | 19.2 |
| Total | 615 | 100 |

Source: Field survey (2024)

### 4.1 Relationship between Distance and Distribution Cost

To assess the impact of distance on distribution cost for Indomie instant noodles, distance was proxied by transport cost and delivery time, a multiple regression analysis was employed (see table 4), where the dependent variable was distribution cost (dc) and the independent variables were transport cost (tc) and time of delivery (td). The resulting regression equation was dc = 3.253 - 0.531tc + 0.492td. The correlation coefficient, R (0.739), indicates a strong association between distribution cost and the independent variables. A decrease in transport cost results in a corresponding decrease in distribution cost, while an increase in delivery time elevates the distribution cost.

The $R^2$ value at 55% suggests that 55% of the variability in distribution cost is explained by variations in transport cost and delivery time. Statistical analysis confirmed the model's robustness with an F-ratio of 68.534, significant at both the 0.05 and 0.01 levels, indicating

significant regression parameters. Specifically, the beta coefficient for transport cost was -0.531, showing a significant reduction in distribution cost with reduced transport expenses. Conversely, the beta coefficient for time of delivery was 0.496, demonstrating that longer delivery times increase distribution costs. These findings align with Maxim *et al* (2018) who noted that within the hierarchy of supply chain performance metrics, delivery time is acknowledged to be a key metric for supporting operational excellence.

**Table 4:Test of the Relationship between Distance and Distribution cost**

**Model Summary**

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|---|---|---|---|---|
| 1 | 0.739 | 0.546 | 0.538 | 0.554 |

a. Predictors: (constant): td, tc

**Anova**

| Model | | Sum of Squares | Df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| | Regression | 42.079 | 2 | 21.040 | 68.534 | .000[a] |
| | Residual | 34.997 | 612 | .307 | | |
| | Total | 77.077 | 614 | | | |

**Source:**Researcher's computation (2024).

**Coefficients[a]**

| Model | | Unstandardized Coefficients | | Standardized Coefficients | | |
|---|---|---|---|---|---|---|
| | | B | Std. Error | Beta | T | Sig. |
| | (Constant) | 3.253 | .248 | | 13.093 | .000 |
| | Transport cost | -.531 | .061 | -.570 | -8.727 | .000 |
| | Time of delivery | .496 | .094 | .345 | 5.284 | .000 |

Dependent Variable: dc = distribution cost. Independent variables: tc = transport cost, td = time of delivery

**Source:**Researcher's computation (2024).

### 4.3 Relationship between distribution cost and adopted distribution channel

As shown in Table 5, distribution cost was proxied with transport cost, time of delivery and distance, the significance of transport cost, time of delivery, and distance in distribution was confirmed through t-tests, where each variable's t-value exceeded its corresponding p-value, indicating statistical significance. Specifically, transport cost had a t-value of -3.040 compared to a p-value of 0.003, time of delivery recorded a t-value of 3.062 against a p-value of 0.003, and distance showed a t-value of 11.144 with a p-value below 0.000. These results underscore the crucial impact of each factor on the effectiveness of the distribution system.

The multiple correlation coefficient, R, was 0.882, illustrating a strong relationship between the combined independent variables (distance, transport cost, and time of delivery) and the dependent variable, the distribution channel. This strong correlation suggests that increase in distance, transport costs, and delivery time significantly influence the choice of distribution channel, supporting the recommendation by Maliheh, et al. (2016) for organizations to consider direct delivery to minimize distribution costs.

Furthermore, the $R^2$ value of 77% indicates that 77% of the variation in the distribution channel can be explained by the variations in distance, transport cost, and time of delivery. This finding is consistent with observations by Abdul-Azeez et al. (2009), who noted poor road conditions and inadequate infrastructure in Oyo State as significant challenges to effective distribution. These results collectively highlight the integral role these factors play in shaping distribution strategies.

**Table 5: Relationship between distribution cost and the adopted distribution channel**

**Model Summary**

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|---|---|---|---|---|
| 1 | 0.882 | 0.777 | 0.771 | 0.398 |

a. Predictors; (Constant), distance, td,tc

**Anova[b]**

| Model | | Sum of Squares | Df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| | Regression | 62.339 | 2 | 20.780 | 131.303 | .000[a] |
| | Residual | 17.883 | 612 | .158 | | |
| | Total | 80.222 | 614 | | | |

**Source:** Researcher's computation (2024).

**Coefficients[a]**

| Model | | Unstandardized Coefficients | | Standardized Coefficients | | |
|---|---|---|---|---|---|---|
| | | B | Std. Error | Beta | T | Sig. |
| | (Constant) | .425 | .315 | | 1.350 | .180 |
| | Tc | -.168 | .055 | -.177 | -3.040 | .003 |
| | Td | .218 | .071 | .149 | 3.062 | .003 |
| | Distance | .623 | .056 | .686 | 11.144 | .000 |

Dependent Variable: Dc, Independent variables: Tc, Td, Distance
**Source**; Researcher's computation (2024)

### 4.5 Discussion

The distribution of goods is pivotal in linking production with consumption through a network of activities and organizations aimed at ensuring the delivery of products in their best condition. It is based on this that this research seeks to evaluate the physical distribution channels of Indomie instant noodles to different shops by their marketers in Oyo State, Nigeria, and, as well, pinpoint which distribution strategies or mix of strategies can be most effective about the maximization of profit, minimization of cost, and attaining maximum customer satisfaction. It emerged from the study that the most dominant distribution channel was producer-distributor-wholesaler-retailer-consumer, as indicated by 50.2% of the respondents. On average, the processing time of an order is 72 hours, as opined by 44.07% of the respondents.

The statistical analysis reflected considerable relationships within the distribution system. The regression model for the distribution costs showed an R-value of 0.739, $R^2$ of 0.546, and F-statistic of 68.534, also proving the model as significant at a 95% confidence level. Moreover, the model that evaluated the distribution channels had a value of R = 0.882, $R^2$ = 0.777, with F = 131.303, indicating that the value is significant, so the transport cost and delivery time have a substantial impact on the distribution cost and, as such, on the choice of the distribution channel.

Deeper inspection showed that, as the research indicates, significantly influencing distribution costs are transport cost, time of delivery, and distance. Transport cost presented a

negative relationship with distribution costs ($t = -3.040$, $p < 0.05$) and time of delivery positively influenced distribution costs ($t = 3.062$, $p < 0.05$). The distance significantly influenced distribution costs ($t = 11.144$, $p < 0.05$). These variables together explained 77.7% of the variation of making the selection to distributive channels, thus being the ones of higher value within strategic plans in the field of distribution. The research is in line with a similar study by Oluwakoya and Ogundipe, (2022) that showed that distribution involves all activities regarding the transfer of goods from manufacturers to consumers. The same study goes further to confirm that distribution costs are part of significant company expenditures and hence calls for effective strategic planning to ensure product delivery is cost-effective and as timely as possible.

## 5.1 Conclusion

The research findings indicated the selected distribution channel for Indomie instant noodles to be one of the significant drivers of its high accessibility and acceptance in Nigeria. It suggests the approach adopted in distribution, including manufacturers, distributors, wholesalers, and retailers is very efficient in getting the product to consumers. The strategy of distribution is lean, albeit with high costs in distribution. The significant role of salespersons in linking the various channel members has also been emphasized, yet with no consideration for the cost of overall production. Key factors that might influence designing a distribution channel include channel, market and product characteristics, competitive variables, and the company's resources. Interestingly, the road infrastructures and the geographic intermediaries distance considerably reflect on the distribution costs, and these deteriorating conditions incur more costs.

## 5.2 Recommendations

Given the above findings, a company such as Dufil Group should consider having its fleet of haulage vehicles to mitigate the risk of failure in third-party logistics agreements. By taking this step, the firm's products will always reach consumers to ensure a constant flow. In trying to cut down on distribution costs, direct delivery strategies should be implemented to strengthen the feedback loop between the company and its distributors. Moreover, further optimization of the distribution is by the use of ICT and reverse logistics in having to minimize transportation that is not necessary. The ICT may enable better control of stock levels by the distributors and, therefore, may reduce costs related to such frequent deliveries

as fewer deliveries may be required. Furthermore, ICT can reduce the number of trips to be generated by the sales representative and this is achievable when perfect communication is maintained by the parties involved.

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**References**

Achrol, R. S., & Kotler, P. (2022). Distributed marketing networks: The fourth industrial revolution. *Journal of Business Research, 150*, 515-527.

Akerele, E. O., Akanni, K. A., Agbaje, E. M., Oyebanjo, O., &Aderinto, O. (2023). Determinants of Marketing Channel, Margin and Efficiency in Local Stimulants Marketing in Osun State, Nigeria. *ActaUniversitatisDanubius. Œconomica, 19*(2), 126-140.

Allegra, V., Bellia, C., &Zarbà, A. S. (2014). The logistics of direct sales: new approaches of the EU. *Italian Journal of Food Science/RivistaItaliana di ScienzadegliAlimenti*, *26*(4).

Arzani, M., Abazari, A., Oshnoei, A., Ghafouri, M., &Muyeen, S. M. (2021). Optimal distribution coefficients of energy resources in frequency stability of hybrid microgrids connected to the power system. *Electronics*, *10*(13), 1591.

Babalola, F. D. (2023). Assessment of Marketing and Distribution Channels of Bushmeat in Kwara State, Nigeria. *Tanzania Journal of Forestry and Nature Conservation*, *92*(1), 122-137.

Claire, L.,& Betrand, W. (2019). Technological changes and population growth: The role of land in England. Economic Modelling, 79, 198-210.

Coccia, M. (2014). Driving forces of technological change: The relation between population growth and technological innovation: Analysis of the optimal interaction across countries. 82(1):52-65.

Dutilh, G., Vandekerckhove, J., Ly, A., Matzke, D., Pedroni, A., Frey, R., ... &Wagenmakers, E. J. (2017). A test of the diffusion model explanation for the worst performance rule using preregistration and blinding. *Attention, Perception, & Psychophysics*, *79*, 713-725.

Guru, S., Verma, S., Baheti, P., & Dagar, V. (2023). Assessing the feasibility of hyperlocal delivery model as an effective distribution channel. *Management Decision*, *61*(6), 1634-1655.

Khoubseresht, O., &Shayanfar, H. (2020). The role of demand response in optimal sizing and siting of distribution energy resources in distribution network with time-varying load: An analytical approach. *Electric Power Systems Research*, *180*, 106100.

Lang, L. D., Behl, A., Guzmán, F., Pereira, V., & Del Giudice, M. (2023). The role of advertising, distribution intensity and store image in achieving global brand loyalty in an emerging market. *International Marketing Review*, *40*(1), 127-154.

Ma, J., & Wang, C. (2023). A review of studies on the relationship between paleogeography and resources: The interplay and impact of food, water resources, and energy. *Geographical Research Bulletin*, *2*, 218-233.

Maliheh, G., Giovanni, Z. & Teodoro, M. (2016). Home delivery services: innovation s and emerging needs. ScienceDirect, IFAC_PaperOnLine 49-12, 1371-1376.

Maxim, B., Alfred, L., & Tatiana, R. (2018). Supply chain delivery performance improvement for several delivery time distributions. *International Journal of Operational Research* 33(4): 538.

Oluwakoya, A. O., & Ogundipe, S. D. (2022). Investigating the Influence of Third-Party Logistics Providers on the Physical Distribution of Manufactured Products. A Study of MDS Logistics. *Journal of Behavioural Studies*, *3*(2).

Pahwa, A., & Jaller, M. (2023). Assessing last-mile distribution resilience under demand disruptions. *Transportation Research Part E: Logistics and Transportation Review*, *172*, 103066.

Pu, L. (2021). Fairness of the distribution of public medical and health resources. *Frontiers in public health*, *9*, 768728.

Rodrigue, J. P. (2006). Transportation and the geographical and functional integration of global production networks. *Growth and Change*, *37*(4), 510-525.

Rushton, A., Croucher, P., & Baker, P. (2022). *The handbook of logistics and distribution management: Understanding the supply chain*. Kogan Page Publishers.

Xu, M. (2017). Distribution Logistics and Logistics Customer Services of B2C E-tailing Industry in the Chinese Market. 58(2). Saimaa University of Applied Sciences, Faculty of Business Administration Lappeenranta.