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TRENDS AND EFFECTS OF THIRD-PARTY LOGISTICS IN
GLOBAL LOGISTICS OPERATIONS

A Project
Presented to the
Faculty of
California State University,
San Bernardino

In Partial Fulfillment
of the Requirements for the Degree
Master of Business Administration


by
Kai-Yu Ho
March 2009

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GLOBAL LOGISTICS OPERATIONS

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March 2009


Approved by:



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March 3, 2009

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ABSTRACT

The purpose of this research is to determine how third party logistics is playing an essential role in global logistics operations. The development of third party logistics has become one of the main streams in the development of the global economy. The competitive advantages from global logistics operations can reduce the risks and increase the flexibility of an enterprise's global strategy. This paper will first discuss the growth of third party logistics, followed by the framework of supply chain management, global logistics management and strategy, and finally, the reasons and benefits of business logistics outsourcing.

As part of the project, an interview was conducted with one of the leading third party logistics companies in Taiwan, which coordinates businesses with FedEx, UPS and DHL. The project will cover how responsibilities are delineated and clarified among air shipping, warehousing, and trucking companies. The following sections will illustrate the regulations and rules for outsourcing companies, and explain in detail how contracts can minimize risks and insure clients who may suffer damages to inventories during transportation. Discussion will also be made on how companies ensure that third party logistics

companies provide information and services. Examples of the decisions-making process will also be provided.

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CHAPTER ONE

INTRODUCTION TO THIRD PARTY LOGISTICS

Logistics has evolved into an imperative characteristic of the business world. Third party logistics (hereafter referred to as 3PL), which is an essential part of many operations has grown swiftly and progressively through supply chain management functions due to the fast pace of market changes. Third party logistics companies provide services that facilitate and expedite the association of elements and manufactured products from the suppliers to manufacturers. They also provide the final goods from the manufacturers to the distributors and retailers according to a customer's needs, and based on the conditions and demands of the market. The greatest significance of using a 3PL is the flexibility they provide in warehouse space, labor and equipment. The operation's activities require experience, skills and expertise. Various firms settle upon a partnership with 3PL companies to allow themselves to focus on the competency of their primary commerce while outsourcing the service types of management to the logistics management personnel. Some of these partnerships are based upon the uneconomical distribution of the companies' own 3PL

management, especially when the operations are done outside the original premises, at offshore locations or situated beyond the clients' control capabilities.

Advantages of Third Party Logistics

In today's world, large organizations have either partly, or completely, outsourced the logistics operations for their ideal needs.

With limited financial plans, smaller organizations maybe not be as sophisticated in outsourcing their goods, but are slowly catching up. In many ways, outsourcing the logistics operations to the 3PL provider may engender more benefits than operating within the main stream of business. Various conditions could be compared to extol the advantages of using a 3PL.

▪ Focus on the Core Business

Centered on the main operation of the business each company should focus on doing what they do the best. By outsourcing the logistics operations, the prevailing gain is to increase the focus for the company on the heart of the business. For example, Apple is good at promoting and advertising their electronic products (e.g. iPod). However, they do not have

any equipment, facilities or labor force to manufacture them. Even transporting the finished goods to retail locations is complicated. By outsourcing the logistics, they can focus on product research, engineering and development, marketing, and customer satisfaction.

▪ Flexibility in Technology

With the rapid modifications in technology today, there are no organizations that have the outlay capability to venture their time and money in all the different fields of their businesses. The latest RFID (Radio Frequency Identification) technology and other advancements necessitate the use of software that is capable of exploiting and processing the massive amounts of data. This becomes more efficient for decision making on the current systems which may not be proficient enough. Thus, it is essential for the software provider to manage upgrades and maintain decision-making software systems. They can then re-distribute resources to the correct location, in addition to showing when those resources should be used for a customer's business.

- Geographical Coverage

Companies are doing what they do best. For large businesses, it is of immense benefit to acquire satellite distribution centers (Hubs) nearer to the market demand where an enormous quantity of supplies can be hoarded, thus saving expenditure. For productions located at different areas around the world, the geographical advantages and political regulating policies may favor certain industries in local regions. For example, the Chinese government offers lower taxation for foreign investors to conduct their commerce in that country.

Understanding Management and Strategies

The nature and quality of global trade is shifting either materials or services. Competition has been rising beyond national borders as resources spread out internationally and more businesses and organizations rejuvenate themselves into multinational corporations. The expansion of global business has extended broadly to ensure stability of the businesses by realizing customers' demands. Instead of dividing businesses and operating each segment independently, major manufacturers are being

launched to take into effect a consolidated and globally integrated solution on international business functions. This has intuitive implications not only for sourcing operations and manufacturing goods, but also for logistics, say the authors of "The Globalization of Logistics," a new report from Coopers & Lybrand Consulting. (February 1998)

There are four essential factors driving the expansion of global logistics managements.

- Globalization of retailing
The broad expansion of chain stores such as Wal-Mart and Office Depot, on-line catalog and Internet retailing, drives the manufacture of finished products away from the market demands as sales can now be done on-line.
- Explosive growth in global sourcing
Manufacturers gather products and services from low-cost regions.
- Development of regional trade hubs
Places like Singapore and the Netherlands have the geographical advantage of being trading hubs closest to the market needs. Many places, such as these, have grown to be not only transportation hubs, but also hubs for the

configuration of finished goods and other value-added services.

- The rise of global logistics-service providers
These third-party logistics companies can either manage their whole supply chain on their own, or through alliances with local and regional strategic partners. These companies are helping to make global logistics strategies possible.

Regardless of the diversity in products, markets, and logistics systems, companies are directing three basic models to enforce a global structure on the logistics operations. These include:

- Logistics councils. Each council should understand the needs and regulations for the whole logistics operation. Each council should also fully communicate with the company's customer logistics member, and understand the level of service the customer requests, establish policies, import and export customs regulations, leverage with the volume of shipments and methods. There is always a trade-off between the service level requested and the project's budget, in order to determine the customer's needs and where the equilibrium

of a trade-off balance is. The council gives suggestions and recommendations to the project manager. The logistics council plays the role of logistics planner but lacks the managerial power to implement the changes in operational processes quickly.

- Purchasing management and policy-setting organizations. The function of the logistics operation basically converts everything into a monetary value. The kind of service provided, is related to how much these services would cost. It manages the contracts with providers, based on the contracts it needs to fulfill, and the criteria required to avoid penalties on those contracts. The company calculates how many employees are needed, the kind of equipment logistics companies need to purchase, and what will be the performance output. All the costs information will be factored in to show how much the 3PL needs to charge the clients. Therefore the purchasing management and policy-setting organization would need to take personnel, equipment, materials, methods and environment (regulations and policies) into consideration.

- Central organization with a matrix reporting organization. The matrix instruction of an organization combines with independent central authority
- Organization that needs to maintain a proper balance between the centralized and local authorities.

Logistic management needs to implement an effective strategy which includes customer services, manufacturing costs, in addition to having a balanced level of inventory, and communication skills. According to some consultants, these strategies need to have "a roadmap to achieve these quantum benefits and improve the way we do business." In some cases, by outsourcing their in-house logistics operation, companies reported for their chain, an overall costs savings of 15~20%. Consultants concluded that this is an effective strategy which allows companies to create a chain of supply that will cut losses but increase customer satisfaction (Vashistha, 2005).

Reason and Benefits of Outsourcing

The Outsourcing Institute discovered, that "Outsourcing is rapidly becoming an accepted management tool for redefining and re-energizing the corporation."

(Corbett, 2004) It challenges the executives to organize, gather and re-evaluate traditional business structures, and to vigorously facilitate a more flexible and convenient firm structure nearby, which forms major competencies and long-term relationships.

A study by the McKinsey Global Institute (2003) illustrated that the companies in the United States have a great potential for increasing outsourcing by 30~40% within the next five years. Thus, over the next few years, employment figures will decrease by about 200,000 jobs per year.

However, these perceptive statistics must still be observed closely. An account by the U.S. Department of Labor in June 2004 claims that in the first few months of 2004, job loss was less than 2% due to outsourcing in the non-farming private sector.

Despite the fact that the employment rate decreases, outsourcing manages to boost its way by adding net value to the U.S. financial system. When \$1 of labor costs is outsourced from the U.S., the total value created globally ranges from \$1.45 to \$1.47. The outcome of the outsourcing for the country in receipt, India in this case, earns just 33 cents. The extra \$1.12 to \$1.14 is taken by the U.S. for new profits such as countries that receive goods and

services from the U.S., returned earnings, and dispatched labor.

The study simply quantifies that outsourcing has the potential for distributing tangible and sizeable benefits by decreasing capital and labor costs; increasing efficiency; and prompting project starts by focusing on the core of business, and by leveling the playing field and reducing risks - the potentials that companies have foreseen in outsourcing become a reality.

For example, in the IT industry, Global Insight, created 257,042 net, new jobs in the U.S. in 2005 with their international IT sourcing software and services. They estimate that the number of jobs will increase to 337,625 by the year 2010. With elevated productivity and low inflation, global sourcing has also risen in real hourly wages by \$0.06 in the U.S. in the year 2005. (Sparrow, 2003)

Outsourcing Didn't Always Meet the Performance Expectations

The research of the McKinsey Quarterly report illustrated that more than 50% of the outsourcing covenant doesn't meet the expectations of delivering the projected goods and services. The report studies 30 outsourcing

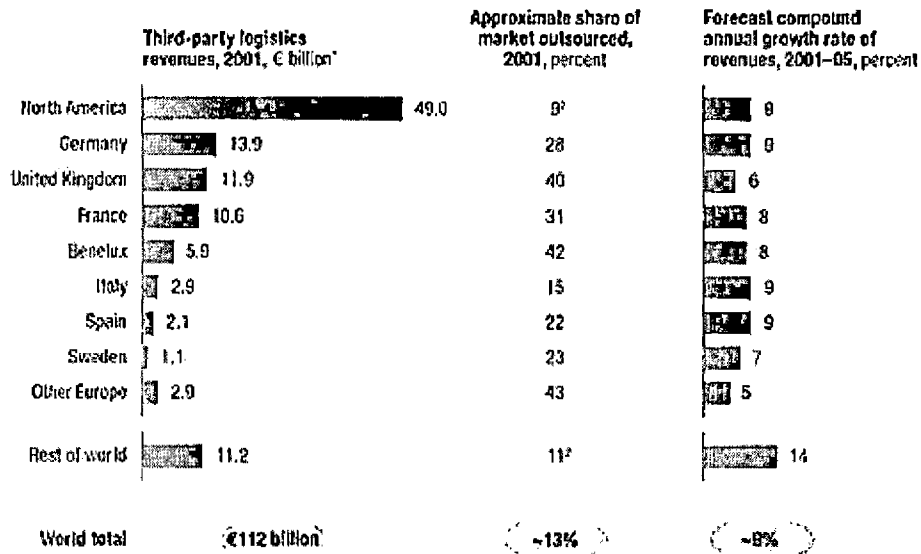
deals within four years which total 20 billion dollars in contract value.

Most of the companies still rely on the standard decision making process, with regards to contracts, regulations, and agreements with an individual department. Using a consultant agency as a third party often reduces the process of comparing different vendors. The price, and not the service level, becomes a major issue in the final decision. This outcome may create deliberate incompatibilities between customer and vendor, resulting in faulty matching of partners in the same business.

Third party logistics providers (3PL) have been playing an important role in the world of business since 1980. Their core objective is to reduce and save money for companies that pay out large figures in outsourcing, warehousing, distribution and other types of connected activities. In many parts of Europe and the United States, the number of 3PLs has increased more than 10% since 1990 and is still growing (Exhibit 1). In recent years, more and more customers have started to grow globally whilst requesting lower costs to fulfill their supply chain needs. This makes it difficult for the 3PLs as their related transportation businesses are also under pressure (Bot, 2003).

EXHIBIT 1

Growing



¹\$1 = €0.93

²2000 figures

Source: Armstrong & Associates; Data monitor; Drescher Kleinwort Wasserstein; McKinsey analysis

(David Craig and Paul Willmott, 2007)

Figure 1. Third Party Logistics Growth in the Different Regions

For the 3PLs, it is essential to build business models that are internationally structured and advanced in technology. Many of the 3PLs have already foreseen this and established themselves geographically, even before their customers have, to attain the necessary demands from the local areas. Thus, instead of customized services, costs could be reduced by customers sharing warehouse and distribution facilities (Exhibit 2). When warehousing is used by multiple customers, 3PLs must invest and modernize

their IT services to prevent a lapse or fragmentation of operations.

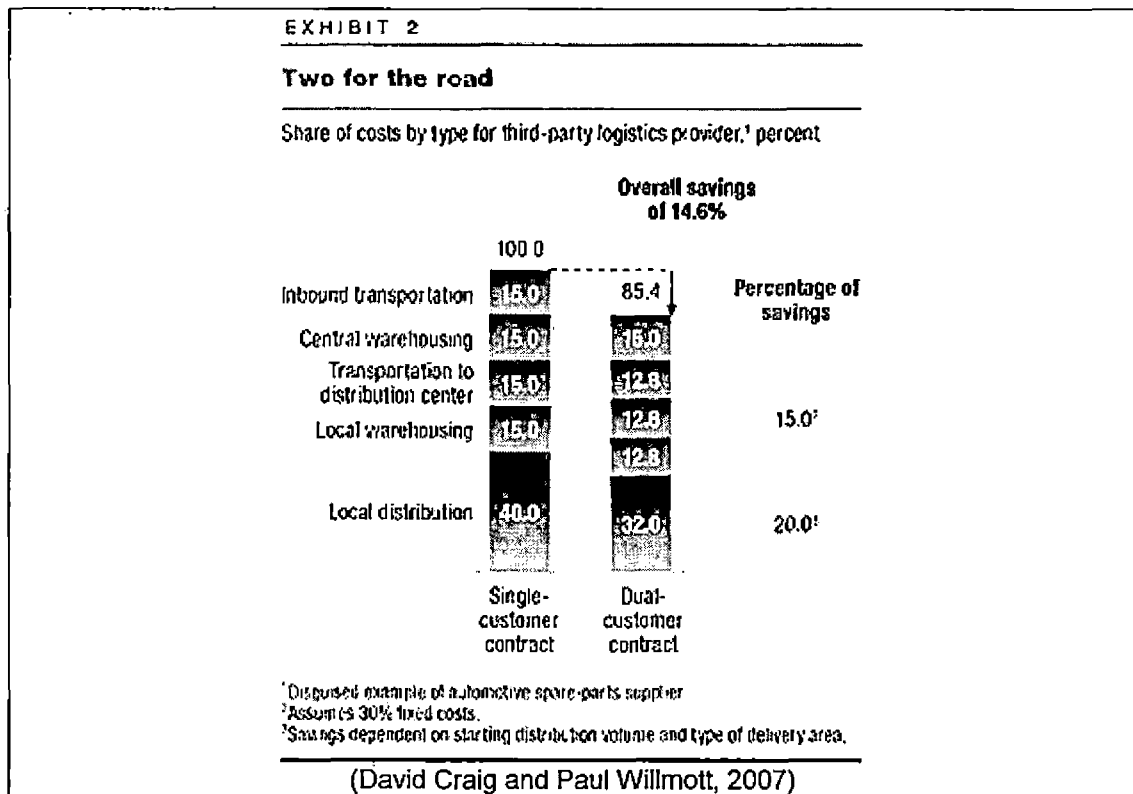


Figure 2. Costs Reduced by Having Dual Customer Contracts

The World of Third Party Logistics

The main characteristic of the 3PLs is to be able to decrease customers' warehousing and transportation costs. Thus, the success of 3PLs has been due to reductions in capital spending, working capital and personnel costs. These more efficient methods also help customers to forecast market trends quickly and move products faster

than by using in-house logistics. Some of the customers, such as those in the electronic and automotive industries, also outsource on a larger scale, in order to manage the logistics between the different countries and continents (cross-border flows). Several electronic industries have a total industry value of 35% in the cross-border flows between continents (Bot, 2003).

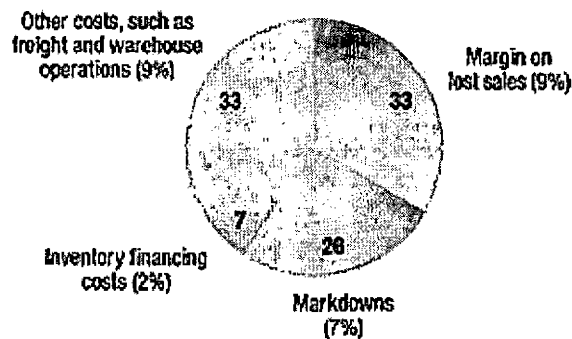
Information-related logistics is also essential in the 3PLs business. These include lost sales, rebates and inventory financing which composes about 70% of the total logistics costs (Exhibit 3). Therefore, it is essential for customers to save on information-related logistics (Bot, 2003).

EXHIBIT 3

The value of information

Share of logistics costs by type for apparel retailer, percent¹

Asset-related costs Information-related costs
(%) Percentage of net retail revenue represented by component



¹Disguised example; figures do not sum to 100%, because of rounding.

(David Craig and Paul Willmott, 2007)

Figure 3. The Value of Information

The downside of the 3PLs is their inability to meet the average capital costs and margin declines (Figure 4). Customers buy commodities based on suitable pricing, therefore they are well-aware of the costs when they request the services of a 3PL, based on their own in-house logistics. Thus, they are capable of estimating the lowest costs for the operations that the 3PLs are able to tolerate. In addition, 3PLs must bear the exclusive IT system under an unimaginably high price with costly warehousing and freight purchases. Even so, return customer rates are about 40%, mainly due to dissatisfaction with the quality of service.

This failure comes from operating individual contracts when the 3PLs often discover advanced technology and renovating difficulties within an operation, instead of understanding and developing the customers' trust and expectations (Bot, 2003).

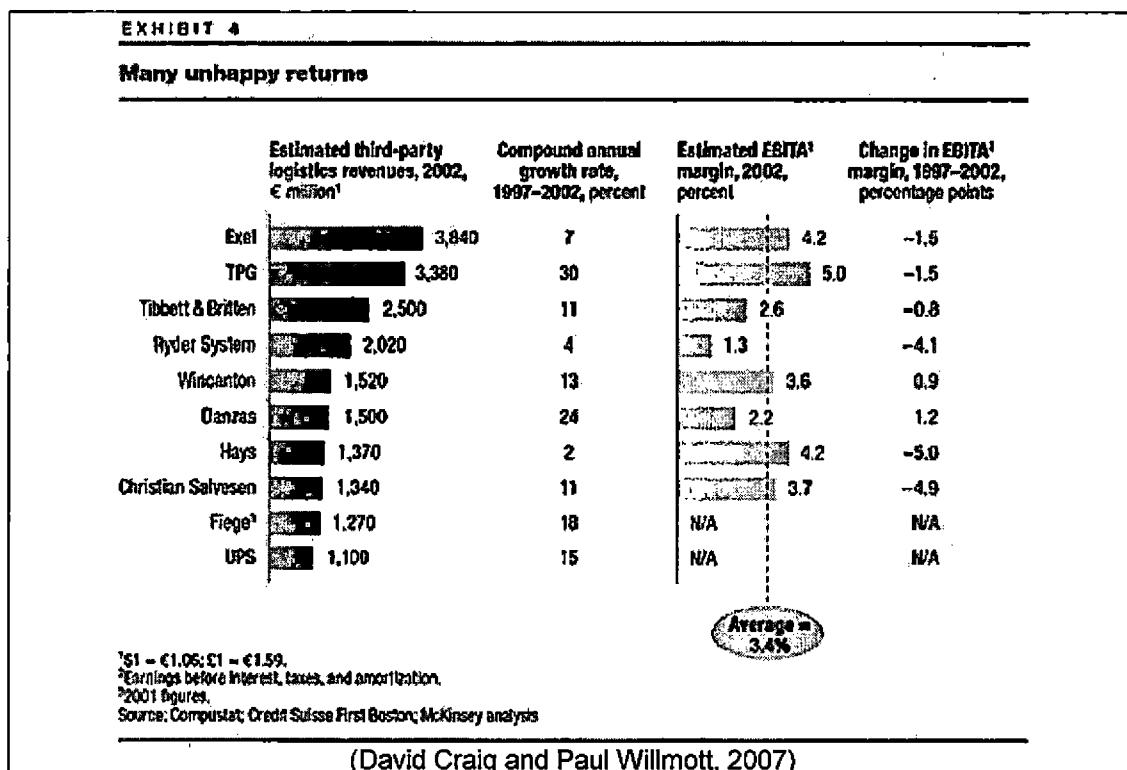


Figure 4. Third Party Logistics Margin of Profit Decline

CHAPTER TWO

JVAN AN, A THIRD PARTY LOGISTICS COMPANY

Introduction

Founded in 1969, Jvan An International Co., LTD. was originally a fiber/textile trading company. In 1998, to echo the government's policy of making Taiwan the "Global Operational Center", Jvan An purchased a piece of property, covering 33,700 square meters in Taoyuan County's Kweishan Industrial Park. In 2001, Jvan An obtained a logistics center license from the Taipei Customs Office under the Ministry of Finance. In March 26, 2002 Jvan An became, formally, one of the largest international logistics parks in northern Taiwan with 50,000 space allocations.

Since entering the World Trade Organization (WTO), the concept of free trade has become increasingly popular in Taiwan. Further, the rise of electronic businesses convinced Jvan An to become officially engaged in the logistics business by restructuring their Nankan Warehouse into the Jvan An International Logistics Centre. This allowed them to take advantage of the C. K. S. International Airport and the No. 1 National Highway. In a timely fashion, Jvan An further planned the Kweishan

International Logistics Park to meet the development and demand for a global logistics supply chain.

Globalization

Having transformed from a traditional industry into the advanced international logistics and storage business, Jvan An is also the pioneer of the modern automatic storage in Northern Taiwan. Jvan An advocates diversities, moderation and safety as its corporate philosophy. In addition to these, geographical advantages, sophisticated storage equipment, and leading technology of computerized information integration and management systems are essential. These were aspects prior to Jvan An's modernization, and thus the company is able to offer the services of multi-functioned logistics centers.

Logistics is separated into an independent division for all business interactions. As the boundary for each department becomes thinner, a new concept of logistics has gradually emerged. That is, the entire transportation and storage of commodities. This concept gets more and more popular, along with new demands for fast delivery of services, closer distribution locations, timely production and more over-all management.

Competitive Advantages

Being able to be competitive is one essential aspect for being a successful logistic service provider. The advantages of being a great competitor would include providing 3PL services to help save time and reduce costs in manpower, distribution and transportation. Furthermore, being designated as an international logistic business with authorization and monthly bonded warehouse cargo clearance, offers independent management and tax reductions. Thus, monthly bonded warehouse clearance and value-added services are able to enhance the relative value of the customers' products.

Locality

The key to a successful logistics business is "speed"; however the "locality" affects speed the most. Having major highways and airports within reach drastically enhances the competitiveness of distribution and transportation efficiency. Service locations (Nankan/Kweishan) listed below.

To Destination	Kweishan International Logistics Center	Nankan Regional Logistics Center
Area	84957 square meters	26619 square meters
Space Allocation	Over 50000	Over 6000
Highway	3 km from Bade Interchange	3 km from Nankan Interchange
CKS International Airport	Approx. 16km	Approx. 6km
Port	50 km from Keelung Port	40 km from Keelung Port
Hsinchu Science Park	Approx. 45km	Approx. 44km
Downtown of Taipei City	Approx. 28 km	Approx. 26km

Figure 5. Distances to Airport, Highway and Ports

Creating New Prospects for Taiwan's Logistics Industry

In creating new prospects for Taiwan's logistics industry, Kweishan was chosen as Jvan An's International Logistics Park because it is near to the CKS International Airport, Keelung Port and major highways. This location allows Jvan An to provide a consistent level of services and fulfill the growing demand for supply chain management. With an ideal location for a Global Logistics operation, Jvan An is capable of meeting and supplying the customers' requirements of "Just in Time".

The facility at the International Logistics Park in Kweishan is constructed of SRC shockproof steel

structures, with the quality exceeding CNS (Taiwan on Line Service) standards. The facility is equipped with various security measures such as load-bearing, compression resistance, quakeproofing, anti-efflorescence etc. Unlike any typical storage facility, Jvan An incorporated a "green environment" by planting trees around the main building, in addition to its sophisticated high-tech design, to create an environmentally friendly locale for both employees and customers.

Diversified Logistics Services

In order to meet different customers' needs, Jvan An designs tailor-made logistics services according to individual cargo characteristics. Furthermore, various warehousing equipment enables the customers to determine the most desirable storage method. In addition, a standardized operating process minimizes human error. Customers can also undergo required follow-up procedures through a computerized system during the warehousing period, thereby avoiding management obstacles.

A diversified logistics service allows better control over the lead-time for international logistics with a rapid 24-hour clearance.

- 24-hour rapid clearance service allows for better control over lead-time for international logistics.
- General warehousing
- Humidity and temperature controlled warehousing
- Bonded warehousing
- Warehousing for hazardous items
- Warehousing for chemicals
- Electronic anti-theft and fire alarm systems
- Warehousing for Medical / cosmetic items
- Warehousing for specialty/fine goods
- Automated warehousing with AS/RS

Value-added services are also provided. Some products require manufacturing or packaging before being warehoused or marketed. Jvan An's International Logistics Park has more than 50,428 square meters of operational area, offering a convenience for such needs, consequently saving costs and time and improving value-added activities.

Instead of seeking alternative subcontractors, the designated processing area allows many value-added activities to take place. This consequently saves the

manufactures or distributors time and expense, and achieves higher profit margins. These include:

- ❑ Labeling
- ❑ Price and barcode printing
- ❑ Assembling and packaging Electronic components
- ❑ Shrink-wrapping
- ❑ Weight and quantity assessment
- ❑ Easy function testing and quality inspection

According to the Taiwanese government's "International Logistics Center," policy having the "Logistics center cargo clearance" drastically shortens clearance times and lowers transit cargo costs. It also provides 24-hour on-demand services, which allows an even more timely control over international logistics.

- ❑ Jvan An International Logistics has self-owned and partnered cargo trucks, which can improve mobility and flexibility in the transportation and delivery of cargo.
- ❑ General import and export cargo clearance and other services are available.

High-tech logistics and warehousing management systems and sophisticated communications, plus a radio terminal control system with AS/RS connection enables rapid delivery, inter-warehouse operations and electronic

information exchange. The warehouse management system is one of the software systems that control the movement and storage of materials within the warehouse. They not only enhance Jvan An's International Logistics operating efficiency, but also enables seamless operations between the suppliers, customers. They also allow better communications for the highest degree of international logistics management.

- WMS (Warehouse Management System) mode and radio terminal control system in conjunction with an AS/RS connection enables rapid delivery, inter-warehouse operations and data exchange. They not only improve the operating efficiency, but also enable smooth operations between all parties. Moreover, they allow better communication for superior international logistics management.
- The perfect arrangement reflects high efficiency.
- VNA (very narrow aisle) pallet racking system and AS/RS (automatic storage and retrieval system)
- 6 heavy-duty cargo lifts and 2 pallets lifts

- More than 27 40-meter containers, 30 3.5-ton truck docks and 24 6.5-ton truck docks.
 - Standard loading docks allow trucks to load/unload directly.
 - All equipment and facilities conform to European standards to ensure the best logistics service.
- Security system
 - 24-hour gated controlled access with an identity check point
 - 24-hour CCTV surveillance with security guards on duty
 - Floor & cargo lifts with IC-card controlled access
- Fire protection (The protection reduces the customer's insurance premium.)
 - All buildings are equipped with an automated sprinkler system and each floor has its own fire alarm, powder fire extinguisher, fire hose reel and emergency exit floor directory.

- Each factory building has reliable independently powered doors and a fire protection system.
 - Emergency power supply
 - In conjunction with Chunghwa Telecom, Jvan An uses fiber optical cables for communication in order to meet the needs of a high data flow.
 - An outdoor independent 1,300-watt power generator insures a smooth operation during power outages.
 - A UPS circuit system has been installed for providing power to computers, communications, the fire alarm system and lighting during any emergency.
 - Ideal working environment
- Revenue reached more than 38.5 billion NT dollars in 2004. For more than 30 years, Jvan An has developed and sustained its reliability while, at the same time, upholding safety and honesty as its corporate philosophy. Jvan An, along with its humane management style, not only provides its employees with a safe working

environment, but has also established an outstanding corporate reputation.

Jvan An has also made available a modern office building equipped with two passenger elevators and various computerized offices to provide businesses with their logistics needs. Having foreign investment working in conjunction with domestic industry eliminates property costs, but at the same time satisfies the local customers' needs.

- A shockproof steel structure ensures the highest standard of world-class warehousing facilities
- A spacious facility for easily adjustable inventory control
- The multifunctional logistics park accommodates customers' needs at different developmental stages

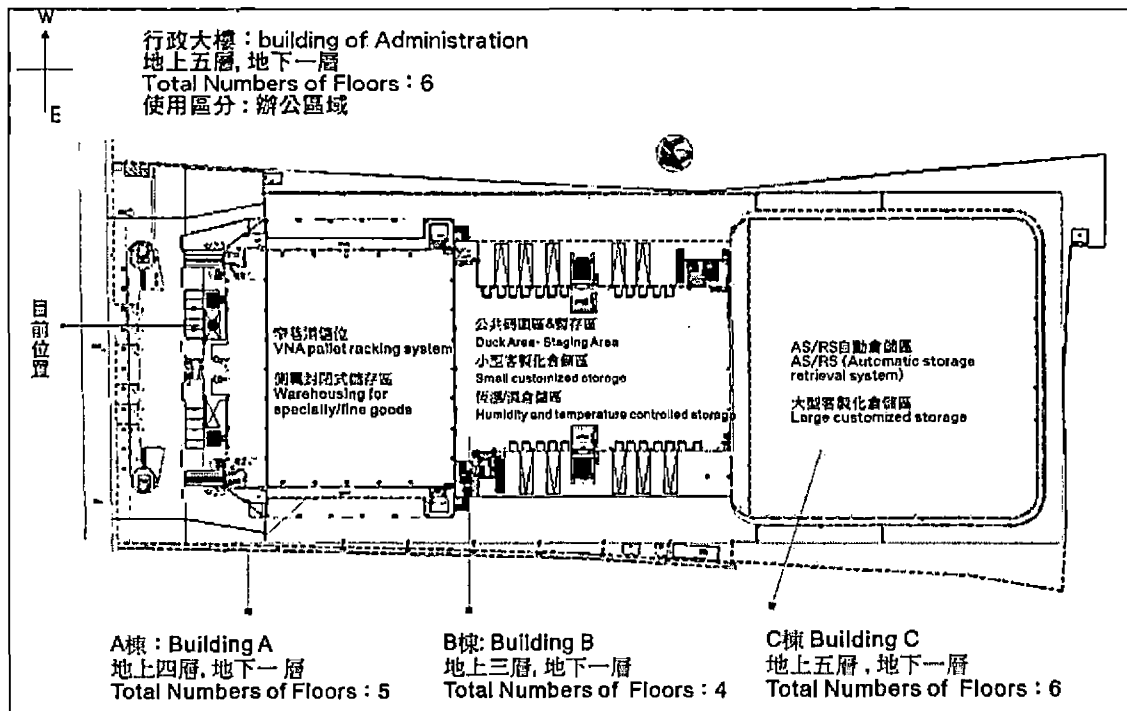


Figure 6. Jv-An Floor Map

Interview

The interview was conducted by Kai-Yu Ho with Jessica Lin, one of the top executives from the Jvan An logistics company. Jessica, the general manager, explains the evolution of the company, and how it demonstrates the profound strategies and approaches to survive, to become and sustain its position as one of the top logistics company in Taiwan.

1. If inventory A and B have strong coefficients, when demand A increases, demand B increases as well. However, two of those products belong to different clients. How does the third-party

logistic provider play an essential role in resource distribution?

There is a contract between all of the clients. The company cannot share the internal information gathered from other clients. Each client is treated as an individual. However, any information regarding the resource planning regarding where to put the goods, a source of manpower shifting, mobile re-scheduling and so forth is usable. For example, company A increases their inventory stock level, therefore, company B can increase their inventory forecasting but only if a third party logistic provider provides this reliable information to them. It certainly helps company B to reduce its cost on forecasting cost and increases the accuracy of procurement for next season. What the logistics company can do is use the information between the clients to decrease costs, without directly providing company A's information to company B which can influence company B's decision making.

2. How can a third party logistic provider extend their visibility in a supply chain network?

Most of the companies are not willing to share their forecasting information with the third party logistic provider, and that internal information should be treated as confidential. Clients consider that a third party logistic provider should have the capacity to handle the unexpected fluctuations of inventories. Therefore, clients are not willing to share the supply chain information details with the logistic company. It really takes time to gain a secure relationship with the clients. Furthermore, a logistics company must constantly maintain communication with the clients to consider themselves as being a part of the strategic alliances. It can be good for both parties to share supply chain information to the third party warehousing, in order for the supplier to provide better service with better prices. The surplus revenue would return back to the client, therefore lowering their costs. By extending the visibility of the supply chain, a 3PL can provide more services such as customs for any inbound and outbound flows. Detailed information can be obtained regarding product

quantities, size and weights. All the preparations will be made ready before products are on ships or flights. Thus, a 3PL can have better forecasting abilities when estimating the manpower and calculating spaces for in-coming inventories.

3. When the warehouse is close to 90% capacity, how can your company increase revenue?

Profits equal revenue minus costs. We can either increase revenues or decrease costs in order to garner higher profits.

Increasing revenue: It is necessary to find a constant high turnover rate for the products of those companies, for example cigarette companies, who have a stable demand to ensure high profits.

Decreasing costs: It is necessary to find the most efficient operational strategy. For example: Reward the warehouse workers to provide better solutions based on packing methods and operating details.

The 3PL can also reject and stop doing business with bad customers who are not willing to fully

cooperate with the warehouse, and with whom it is difficult to negotiate and communicate.

4. What kind of application does a third party logistic provider use to integrate with all of their clients? Why do clients choose a 3PL to manage their inventory?

Other companies use an ERP system such as SAP. But Jvan An is different and uses an EDI (electronic data interchange) system as its platform. EDI is one of the common application interfaces to exchange data between business (B2B) operations. By transforming data into valuable information, Jvan An Co. inputs data into an Excel application to monitor every single inventory in the supply chain network. The application answers questions such as: How much does it cost to store a single unit in the warehouse? What is the stacking method on a pallet? How many goods should be on a single pallet? How much does it cost to deal with the different shipping methods? Excel can do calculations regarding - how much it costs if clients store their goods; how much detail is needed to be put on the sticker labels; and how

fast the clients would want to transfer their products. The 3PL can also arrange for a whole pallet to be shipped directly to the end user by using a PPS (Picking, Packing, and Shipping) system. For example, the 3PL can provide this service to those online stores who locate their offices at overseas locations in order to reduce their costs, while at the same time having a warehouse in Taiwan to distribute the products.

5. Has Jvan An handled any special task as the 3PL?
As a 3PL, a company may face unexpected challenges daily by receiving a variety of frail and expensive inventories which can range from hazardous chemical materials to such tiny pieces as screws. A 3PL needs to understand each material's characteristics for constructing specific warehouse facilities and purchasing special vehicles to ensure the warehouse and working personnel's and safety. For example, foods such as chocolate, milk, wine, and cosmetic products have special storage and handling needs relating to temperature. Luxury items belonging to large reputable companies require highly secured personnel and facilities.

6. Some products have warranty issues. How can you insure that a product can be FIFO?

Some products such as cell phones, LCD and plasma-related electrical products already have warranty concerns covered by both their OEM (Original Equipment Manufacture) factory and the customers. All products have their own identifying serial number. When the products are inbound to a 3PL warehouse, the reader will scan the barcodes into the computer which records the date that the products were stored in the warehouse. Whenever clients recall their products from the warehouse, the computer would first and foremost, want to find those products that have been stored in the warehouse the longest. On the other hand, the clients can provide which serial numbers need to be sent out as a back-up confirmation to make sure the 3PL sends out the correct inventories.

7. How do you communicate with your clients to ensure the efficiency of the whole Supply Chain network?

As a 3PL warehousing service, many clients do not consider the warehouse distribution center

as their strategic partner. They consider the 3PL as their secondary warehouse or outsourcing distribution center. Clients are not willing to share supply chain information about when their products will be on board a ship or reach port. They usually inform the 3PL warehouse 4 hours ahead of the cargo arriving in port. The clients believe that the 3PL should be able to manage such fluctuations. The 3PL provider not only cooperates with one company. Jvan An also manages several different companies who are competing with each other. Therefore, companies are not inclined to be willing to share the exact time schedule of when their new products will be on the market due to their marketing strategies.

According to the interview with Jessica Lin, it can be concluded that at present, as a seemingly substantial business, third party logistics has grown in reputation and reliability throughout the world. Third party logistics perceives the idea that business is not only about the amount of money companies could make, but also the art of stabilizing, and becoming flexible for both themselves and the customers.

In conclusion, outsourcing of logistics has become a trend due to globalizing economies. As a third party logistic provider, "know how" would be the first priority for running a business. A client comes for the management of their goods and inventories beginning with the manufacturing factory until their arrival at the retail stores. It has involved ground transportation, forwarded customs documentation, and warehousing managerial skills. The third party logistic provider may need to outsource a trucking company, and/or staffing company, in order to yield to the fluctuations of unexpected forecasts of inventories. It is essential that a 3PL has the ability and capability to manage the operations and have all the companies work together. "Know how" would be the key issue to determine whether the whole operation is either a success or not. The 3PL needs to manage each outsourcing company, communicate and integrate with each of them throughout the whole supply chain. Even though it can be a global supply chain, the 3PL faces the challenge of dealing with each country's different regulations and cultural differences.

Globalization is the trend that makes all businesses focus on their core competency, and outsource the minor competencies to other companies. Since each company is so

focused on their own core competency, they are unaware of what is going on in other companies that are not in their competitive market. All the companies are extremely focused on investigating their own specialized field. Therefore, communication between outsourcing partners plays an important role in knowing how to make all the special skills from the different fields work together in the same direction to achieve the same goal. Companies can not be focused primarily on their own field and remain unaware of their partners' needs.

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