

Logistics and Supply Chain Management

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Abstract--- *This paper discusses various aspects of logistics and supply chain management, such as the benefits of a full logistics model and supply chain management. It also outlines a series of challenges in logistics and supply chain management. Technology has been regarded as an enabler for current supply chain and logistics processes to develop. Recent trends in culture and industry, however, such as mobile computing, social media, and online retailing, have changed almost every part of the supply chain and logistics environment significantly. In particular, it analyses ISOFT Australia's logistics and supply chain model-a computer and video game publisher. It points out some potential problems of Ubisoft Australia with the software system, communication and information flow in inbound logistic and non-conforming returns by conducting interviews and observations together with gathering company internal records. Eventually, a number of proposals are being made for further changes. Supply chains are now being used to support business strategies within an organization. Several organizations accept their supply chain as being a key business method versus a cost centre. Networks of distribution evolve from centralized to distributed, and then to hybrid. Businesses are also using logistics and transportation in multimode rather than a single mode. Nevertheless, in addition to the channel distribution, more businesses are delivering directly to their customers.*

Keywords--- *Inventory, Logistic, Software Integration, Supply Chain Management, Ubisoft.*

I. INTRODUCTION

In human societies, logistics operations have always accompanied life, although the scope of the term logistics as such would change overtime. It is most likely of Greek origin, indicated by the meanings of words like logos counting or reason logistic calculation art gismos calculation calculus reflection. They are also the origins of the idea of logistiquie which is the French term for transportation, lodging and provision of soldiers, as well as the root in its military sense of the English word logistics[1].

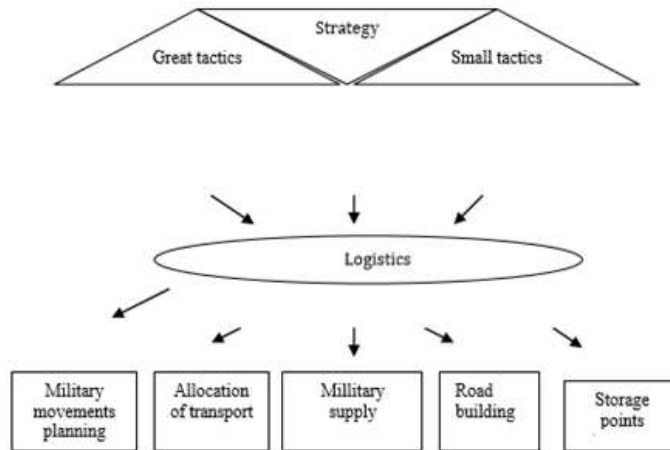


Figure 1: Logistics

Since that time, logistics in military terminology has been understood as the management of transportation processes, deployment, accommodation, and supply of troops-the areas of military activity theory and practice. It got widespread during World War II. The military logistics idea, along with a significant portion of the variety of activities related to this term is transferred to the civilian economy by American managers only as late as in the mid-50s. In the beginning term used was Physical Supply Management, rather than Logistics. With the use of machines and quantitative techniques in production, a simple breakthrough came when the crisis would cause cost reduction and tighter control[2].

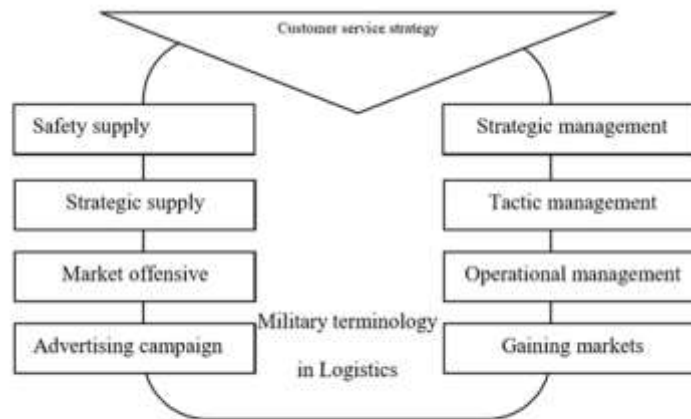


Figure 2: Military Terminology in Civilian Economy

II. LOGISTICS AND SUPPLY MANAGEMENT CHALLENGES CHAIN

The integrated logistics and supply chain process model is a complex system which not only offers a number of opportunities but also many challenges. The integration of software is one of the most demanding elements in the logistics and supply chain management process. It is undeniable that software integration has brought numerous benefits to effective purchasing, transportation, manufacturing, inventory, and payment control and operations[3]. Nevertheless, due to the convergence of many functions with the participation of many parties, the business suppliers of products,

distributors and even customers, software integration has become complicated and difficult for the operations of the organization. Concentrate on other aspects of global logistics and supply chain management called the contact process and information flow. Poor communication leads to numerous supply chain issues such as delivering wrong products and quantities to customers, missed or late deliveries that hinder full-time delivery[4]. Another problem which has been increasingly troubling in logistics and supply chain management is defective stock returns or reverse logistics. Reverse logistics process is to handle the collection, handling and return of defective stock which increases time and cost in the supply chain. In addition to the above-mentioned challenges, transport, demand forecasting, network relationship building, inventory and green logistics and supply chain, in general, are also considerable logistics and supply chain management problems. Logistics and supply chain management has not only been limited to these problems in the computer and video game industry but also to some other traditional challenges such as embargo issues and digital-physical delivery. It's usual to have a strict global launch date for a new product within the video games industry. Failure to control access to a new product may have consequences in territories outside our own country. Product may be intended for store, end-user customers or journalists reviewing the product and adherence to strict delivery guidelines is important[5]. Distributors like Ubisoft need to have a measured and detailed influence over all aspects of the supply chain to ensure that street dates are respected. Embargos are imposed on stores preventing early selling of any stock. Order to avoid having stock shipped too early, attention is paid to delivery schedules thereby reducing the risk of missing street dates. Another problem which has been of concern to all game publishers is the increase in digital distribution. Although the increase in digital distribution has brought many benefits, there are a very large number of obstacles that have implied negative impacts on a retail chain, or that could even lead to retail outlets disappearing in the future. However, it is argued that physical distribution has its own strengths that help the video game industry continue to run this form of distribution, especially the hands-on experience at retail outlets that the digital distribution can never have[6].

III. POPULAR LOGISTICS AND SUPPLY CHAIN MANAGEMENT MODELS

A 3PL model is a form of logistics and distribution related outsourcing activities. A vast resource network, scalability and flexibility, expertise, continuous optimization, time and money savings are the benefits that a 3PL provider can bring. A 3PL provider company does not spend time taking care of the tasks behind the scenes; the company can focus on other tasks, such as marketing, sales and business development. Drop shipping is another logistics and supply chain management method in which the goods are delivered directly to the customers without going through the distribution centres or warehouses. The sellers can save costs and time for storage, inventory, delivery and administration fees[7]. By comparison with the drop shipping model hub and spokes model, when the products are distributed prior to delivery to consumers, a distribution centre is improved. Strategically the hub is usually at a good location that is more convenient for transportation of the product from suppliers / manufacturers to the hub than from the hub to the spokes. Under the pressure of fierce competition on the global market, companies are forced to change or think about new ways to improve their operation, attract consumers and stay ahead of their competitors in the game. The most recent distribution and supply chain management method invented by Amazon is anticipatory delivery technique[8]. This approach is based primarily

on the Big Data and predictive analysis. Based on previous browsing behaviours and customer purchasing decisions, Amazon can predict which items and the quantity its customers would like to purchase in the near future; then arrange delivery to the Amazon hub in the geographically related region before their customers officially purchase those items. The key strengths of this method are quicker delivery and extra sales. Although this method still has much debate about its advantages and disadvantages, it is still considered an innovation in logistics and supply chain management[9].

IV. UBISOFT AUSTRALIA LOGISTICS AND SUPPLY CHAIN MODEL

Ubisoft is a world leader in developing, publishing and selling interactive entertainment and services, especially computer and video game. Ubisoft Group has become one of the top 10 public companies with a diverse portfolio of world-renowned brands according to the game revenue rankings. Ubisoft provides memorable gaming experiences across all the popular platforms through its worldwide network of business offices and studios. Ubisoft Australia is a branch of the Ubisoft international group[10]. It is a company office with about 30 staff assigned to four teams-marketing, advertising, finance, and operations. The business sells goods not only to Australian and New Zealand retailers but also online games shops. Ubisoft Australia's logistics and supply chain model has been viewed as a typically full model with forward logistics, reverse logistics and 3PL combining drop shipping and hub and spokes logistics model as shown in Figure. The inbound flow from production is managed to draw stock from local factories as well as from manufacturers in other parts of the world. Orders can be shipped directly from suppliers to the retail / wholesale distribution centre, or channelled through the 3PL warehouse, depending on demand volumes. For urgently needed orders, stock may be cross-docked through the 3PL; or stored at the warehouse until necessary. Using the 3PLs courier agreements, stock will be delivered to its desired destination based on Ubisoft customer's needs. The orders are sent to the main distribution centres of the courier before being diverted to regional DC's and depots[11].

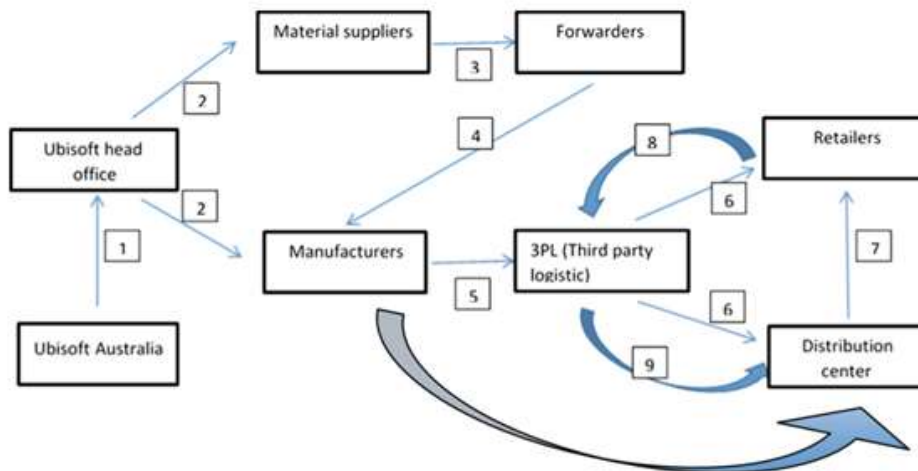


Figure 3: Flow Chart of Ubisoft Supply Chain

Finally, either the courier or subcontractors deliver them to the store docks. In some situations, the orders are then inducted into the supply chain of the retailer for delivery to its own network shops. In circumstances where consumers

are required to return stock to Ubisoft, the consumer is requesting an authorisation. Once this request has been accepted, products are collected using the carrier of the 3PL either from the store or from its reverse logistic warehouse. When returned to warehouse, prior to reworking or destruction the products are tested for conformity[12].

V. MOTIVATION FOR SUPPLY CHAIN TECHNOLOGY INVESTMENTS

For numerous reasons, businesses have implemented new technologies in their supply chain and logistics activities. These are given below:

- Improving investment returns (ROIs) by using technologies that better leverage the utilization of human and equipment capital expenditure.
- Create operational efficiencies to reduce inventories and increase cycle times; and
- Increasing customer responsiveness by minimizing lead times, increasing product availability, reducing stock-outs and ensuring flexibility to change customer demands.

All of the above factors eventually lead to higher demand for the customer base, and increased profitability. Companies are looking for ways of achieving greater end-to-end visibility across the complexity of supply chain processes, operations and systems. Visibility provides controlled access and transparency to accurate, timely and complete events and data transactions, content and relevant information on the supply chain within and across organizations and to support effective supply chain planning and execution[13].

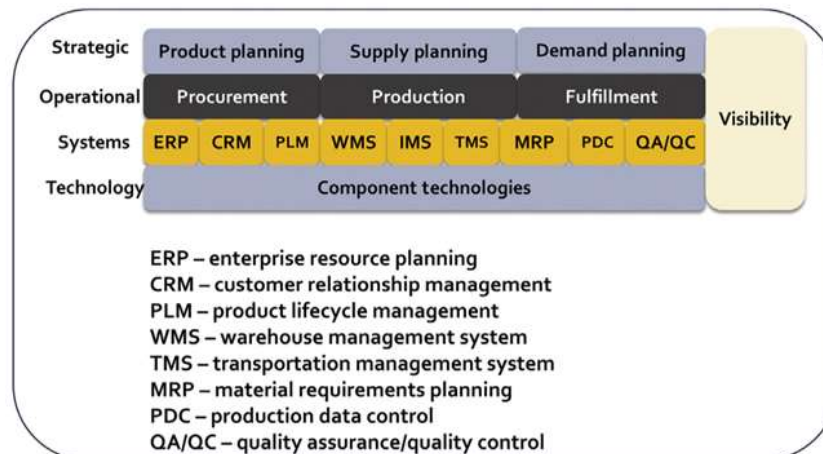


Figure 4: Supply Chain and Logistics Relationships

VI. CONCLUSION

The paper reviews various aspects of logistics and supply chain management in general in the computer and video game industry. Additionally, it analyses Ubisoft Australia's logistics and supply chain model as a computer and video game publisher. The results highlight Ubisoft Australia's problems with the software system and the flow of communication and information in inbound logistic and non-conforming return areas. Finally, it proposes several recommendations to stop the problems. The integrated logistics and supply chain process model is a complex system

which not only offers a number of opportunities but also many challenges. The integration of software is one of the most demanding elements in the logistics and supply chain management process. It is undeniable that software integration has brought numerous benefits to effective purchasing, transportation, manufacturing, inventory, and payment control and operations. Reverse logistics process is to handle the collection, handling and return of defective stock which increases time and cost in the supply chain. The orders can be shipped directly from suppliers to the retail or wholesale distribution centre, or channelled through the 3PL warehouse, depending on demand volumes.

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