



MANAGING INTELLECTUAL PROPERTY IN GLOBAL SUPPLY CHAIN MANAGEMENT

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Abstract: Information sharing among business partners forms the foundation of the Intellectual Property Supply Chain: customers and vendors, agents and distributors, producers and creative, marketing and legal. Unique to intellectual property, any single company or individual may play from one to all of these roles. Over the past decade the Internet has simultaneously increased marketplace complexity and allowed partners to demand more timely and detailed information. In cases where the end-product itself is digital (music), actual delivery becomes an integral element of information flow. Intellectual Property stakeholders in physical products (apparel designers) wish to monitor final consumer distribution as well. This research tries to managing intellectual property in global supply chainrelationship to the management of IP and innovation generation.

Keywords: *IP, Global Supply Chain etc.*

Introduction: Supply Chain denotes an integrated approach towards supply of goods and services from sourcing point of raw material/Input to delivery point of product/service alongwith all intermediate stages (work-in-process). On a macro basis, a supply chain definitely consists of Upstream and Downstream processes. An upstream supply chain deals with sourcing of raw material from

suppliers through Purchase and Logistics, while downstream supply chain covers the delivery part through Sales and Disposal. The manufacturing part, if any, can be included in upstream. A typical supply chain is a set of multiple upstream and downstream process flows of goods and services with related finances, technology, methods, strategy and information.

With increasing competition and shrinking margins, companies are striving for more and more specialization, resulting into increase in number of players in a supply chain. Outsourcing non-core functions either aim for cost effectiveness or better product/service. In general, such a structure can be defined as "a

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group of semi-independent organisations, each with their capabilities, which collaborate in ever-changing constellations to serve one or more markets in order to achieve some business goal specific to that collaboration" (Akkermans, 2001). The success of any supply chain depends upon effective integration of key processes rather than optimizing individual functions. The critical supply chain processes, involving flow of goods and information, are:



- a. Product Development
- b. Supplier Relationship Management
- c. Demand Management
- d. Procurement
- e. Manufacturing
- f. Logistics
- g. Customer Relationship Management
- h. Distribution & Sales
- i. Outsourcing
- j. Performance Management & Capacity Building

For major parts of the development history of the supply chain management, the emphasis was to improve inventory management while maintaining good customer and supplier relationship. As noted by Mintzberg, 1979, "Traditionally, companies in a supply network concentrate on the inputs and outputs of the processes, with little concern for the internal management working of other individual players. Therefore, the choice of an internal management control structure is known to impact local firm performance."

In recent times areas like Risk Management, Social Responsibility, Sustainability, Transparency, Ethical Issues and Intellectual Property Issues have become prominent in research agenda. As the knowledge based economies are contributing major part of the wealth; Intellectual Property, related issues and management of the same is one of the major focus areas in supply chain.

Intellectual Property: Intellectual Property (IP) refers to intangible assets created by human intellect. Every IP can be classified into two major heads: Industrial or Copyright. Industrial IP includes Patents, Trademarks, Undisclosed Information (Trade Secrets), Geographical Indications (GI) and Industrial Designs. Copyright includes artistic & literary works and architectural design. For the purpose of this study, only Industrial IPs is of importance.

- a. **Patent:** An exclusive right to use/sell a product or process which brings out a unique solution to a problem. In a supply chain a supplier might be using a patented product or process or some patented process might need to be shared with the supplier. A non-disclosure agreement often prevents the embezzlement of IP in such cases.
- b. **Trademark:** A distinctive sign indicating that the goods or services produced or provided by a specific entity and hence have specific characteristics. The aim is to restrict the entry of counterfeit products in the supply chain, which occurs mainly in downstream phases.
- c. **Geographical Indication (GI):** A sign indicating that the goods have a specific geographical origin and hence have specific characteristics. As in the case of Trademark, this also aims to restrict the entry of counterfeit products in the supply chain.
- d. **Industrial Design:** It refers to the aesthetic aspects of an article having commercial value. During outsourcing of manufacturing or execution based on these designs, the related IP is at risk and might be

compromised. Modular approach is often used to minimise this risk.

- e. **Trade Secrets:** Undisclosed Information being used in business having commercial value because of secrecy. To qualify as a Trade Secret the owner of such information must take reasonably adequate actions to safeguard it from being readily accessible. While Trade Secrets are, by nature, more certain type of IP, they are also more vulnerable because of the difficulty to prove violation. A trade secret may or may not qualify for patent and the owner of such information decides whether taking a patent will diminish the competitive advantage.

Intellectual Property Laws in India

India being the member of Trade Related Intellectual Property Rights (“TRIPS”) has enacted the necessary statutes and amended the existing ones. These are:

- a. The Copyright Act, 1957 (amended to protect computer programs as “literary work”)
- b. Trademarks Act, 1999 (replaced the Trade and Merchandise Marks Act, 1958)
- c. The Patent Act, 1970 (amended by the Amendment Acts of 1999, 2002 and 2005)
- d. The Designs Act, 2000 (replaced the Designs Act of 1911)
- e. The Geographical Indications of Goods (Registration and protection) Act, 1999
- f. The Semiconductor Integrated Circuits Layout Design Act, 2000
- g. The Protection of Plants & Varieties and Farmers Rights Act, 2001
- h. The Biological Diversity Act, 2002

There is no specific statutory law in India to protect trade secrets (& know-how). However, under the doctrine of breach of confidentiality, equity & fraud (common law), the courts have granted protection in the recent past. For example Delhi High Court defined trade secrets in American Express Bank Ltd. v. Ms. Priya Puri case. Some important such cases are as follows:

- a. Burlington Home Shopping Pvt. Ltd. Vs Rajnish Chibber - The court held “a

database consisting of compilation of mailing addresses of customers can be subject matter of a copyright and if used by the defendant will amount to an infringement”. Thus the court protected a trade secret under the Copyright Act.

- b. Tractors and Farm Equipment Ltd. Vs. Green Field Farm Equipments Pvt. Ltd. and Ors. – The court stated that an injunction, under Designs Act, is possible only if there was a non-disclosure agreement in place.
- c. Pramod s/o Laxmikant Sisamkar and Uday Narayan rao Kirpekar Vs Garware Plastics and Polyester Ltd. and Anr - The court made an observation that in case of use of the technical know-how is in contravention of the agreement of service, then section 408 and 420 (of IPC) can be attracted.
- d. Control Print (India) Limited Vs. Sanjay Sribastab and Ors - The Court held that if the ex-employees had access to the information, which was not available to any outsider, then only an injunction can be granted.

Intellectual Property Issues in Supply Chain

IP leakages and the inadequate protection for the same is widespread, resulting into loss of substantial value for the IP owner, Industry and the world economy as a whole. A white paper from McAfee noted, “Every company in every conceivable industry with significant size and valuable IP and trade secrets has been compromised (or will be shortly)”. In an estimate released by The International Chamber of Commerce the value of counterfeiting and piracy has increased by more than double from year 2008 to 2015, amounting about US \$1.7 trillion.

IP laws violation varies depending upon the type of IP in question and the infringements may take place upstream and downstream in the supply chain. The major causes for the same are as follows:

- Lack of information about suppliers’ and outsourcing partners’ practices: With increasing globalization, supply chains have

included multiple suppliers' and outsourcing partners to achieve cost advantage and engage local talent & expertise. However, the spread and distance also imposes the risk of IP leakages and violations.

- Little or no incentives for supply chain partners to take care of IP laws: To generate more profits and reduce licensing costs in the short term, suppliers and distribution partners may deliberately violate the IP laws, such as counterfeiting.
- Tedious legal proceedings and delayed or limited law enforcement also contribute to the problem.
- Availability of vast traditional knowledge sometimes create a culture of using acquired information without taking care of attached IP.
- More often than not employees become the leakage points of confidential information. IP rights violations and infiltration of counterfeits can impact the top-line revenue in two ways – first, the cheaper and low-quality alternatives can tarnish the brand image of the company resulting into diminished demand and second by generating the demand for the counterfeits.

Managing Intellectual Property

In most of the organizations management of IP has been the responsibility of Legal function only. However, IP are indeed assets of a firm that have commercial value, mostly for productive use within the firm and in some cases, as in R&D and Market Intelligence, for direct sale to customer and hence a proper strategy to manage them is required.

Depending upon the nature of business the objective of an IP strategy may vary in degrees with respect to minimizing the risk of IP leakage, reducing cost of developing IP, reducing cost of production with the help of IP and thus increasing bottom-line revenue and generating competitive advantage. In any case, an IP strategy must take care of protecting the IP i.e. preventing the loss, organizing for

enforcement procedures and managing the business partners.

The conventional approach to manage financial assets can be applied in the case of IP management as well. These can be:

1. Managing Return on Investment (RoI): Compare relative RoI to decide which IP has what value to the firm
2. IP can also be used as an instrument to facilitate Financing
3. An IP can be used at multiple points in a supply chain and thus proper care needs to be taken as per prevalent taxation practices.
4. Forming Joint Ventures and collaborating with supply chain partners to control the use of IP

Further, the conventional Asset Management System can also be used. The components of such system are:

1. Accountability – Who has the asset, when it is due for review
2. Asset Life Cycle Management with Audit trail
3. Compliances and MIS
4. SOPs and Internal Control

While conventional approaches are applicable to manage IP; the nature, value and threats associated demand a specific organization of IP strategy. The framework should be consisting of:

1. Top management buy-in to ensure awareness for IP issues throughout the supply chain, centralized single IP policy and set-up of cross-divisional function.
2. Regular assessment of IP portfolio and proactive risk assessment
3. Vertical expansion through collaboration
4. Appraisal of supply chain members as part of supplier assessment and Capacity Building
5. Long term engagement with suppliers to ensure better relationship management
6. Detailed study of violations and preparation of response mechanism like authenticated access, modular execution etc.

7. Training of employees and non-disclosure agreement

8. Compliance reward system for employees and suppliers both

Conclusion: Given the low priority assigned to formulate an integrated IP strategy in supply chains, it is evident that IP rights violations and inadequate enforcement thereof are widespread. Every organisation, based upon its current standing in terms of maturity in managing IP, should formulate a framework. The maturity levels can start from Defensive to Cost Control, Profit Centre, and Integration and finally up to Visionary level.

The conventional approach of managing financial and physical assets may not be adequate to address the complex issues of IP in a supply chain and therefore a specific organization as described above is required to employ integrated management processes.

Two most important players in a supply chain, as far as IP is concerned, are Suppliers and Employees. Relationship building, Capacity building and contractual binding (such as non-

disclosure agreement) are the tools to prevent IP loss on these fronts.

IP being intangible/financial asset requires strong legal framework and swift enforcement of the same. The most vulnerable IP in this context is Trade Secret. In Indian scenario a strong and uniform statute to protect Trade Secret is need of the hour.

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