Chapter 3 – Intellectual Property Management

3.1 Introduction

This chapter will provide a thorough analysis of what IPM involves and its significance in today’s environment. A fragmented IPM, while serving the purpose of specific kinds of IP, fails to address the overall nature and utility of an organisation’s IP. A rather comprehensive approach to IPM is an essential requisite given the vast issues an organisation is likely to face by ignoring even one type of IP critical to the establishment.

The last constituent of this chapter will then outline some of the current IPM practices, if any, that are in place within organisations in India. Where required the chapter will also delve into aspects of some of the practices adopted by organisations outside India to see how these IPM systems have worked for such companies. The chapter will then go on to outline some of the lacunae that current practices have and state the need for a certain standardization of practices for the benefit of organisations.

3.2 Need for IP Management

Intellectual Property, as has been seen in the last chapter, has many different forms and any one organisation could be dealing with more than one type of IP at any given point in time. Depending on the nature of a business, a company or organisation would grapple with various issues related to IP including identifying the type of IP and considering its potential for exploitation for its commercial benefit.

One may think that an educational institute, for instance, would mostly consider Copyright as the form of IP it has to deal with given the immense research and publications the institute disseminates. However, any institute which could possibly have a specific delivery methodology for its course contents that it may have created would most likely be its trade secret. On the other hand, educational institutes which are research oriented would also have to consider forms of IP such as Patents and Designs.

A well-known institute would also have to constantly monitor its trademark to prevent other institutes from trying to piggyback on the goodwill that the institute would have generated.
It is equally important for educational institutes, like in the case of other businesses, to firstly ensure protection of its brand name and thereafter keep a watchful eye on possible trademark infringement lest they lose out on any means of exclusive use.

The case of *Skyline Education Institute*\textsuperscript{238} is one such instance in the Indian context where the institute lost out on exclusive use for lack of efficiently dealing and managing its trade name and seeking adequate protection.

Skyline Education filed a case of trademark infringement in the Bombay High Court against the respondent’s S.L Vaswani who ran the Satilila Charitable Society which was also in the education sector. Skyline Education submitted that the Satilila Charitable Society ran an institute under the name ‘Skyline Institute of Engineering and Technology’ and that the use of the word *Skyline* would cause confusion in the mind of the public. Skyline Education sought a permanent injunction against Satilila Charitable Society to prevent them from using the word Skyline. Satilila Charitable Society on the other hand contended that Skyline Education could not have monopoly over the word since it was generic and used worldwide and the then existing law on trademarks prohibited grant of marks in respect of educational services.

The Bombay High Court, while holding the word to be generic, ruled partly in favour of Skyline Education and restrained Satilila Charitable Society from offering similar courses while ordering them to include a disclaimer stating that Skyline Institute of Engineering and Technology was not associated with Skyline Education in their course advertisements.

On appeal the Supreme Court, the order regarding the injunction was vacated and the SC also ordered Skyline Education to pay costs for frivolous litigation.

The above example is just one such instance from the numerous other issues of how mismanagement or lack of efficient systems can result in loss of exclusive use of a trade name or other such losses vis-à-vis IP use or exploitation. Given the consequences of poor understanding of IP issues in organisations, it is imperative all forms of IP and intangible assets be considered to be of as much importance as its tangible assets.

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\textsuperscript{238} Skyline Education Institute (India) Pvt. Ltd. vs S.L. Vaswani & Anr, AIR 2010 SC 3221.
A 2015 study by an American Firm titled ‘Intangible Asset Market Value Study’ states that about 87% (Eighty seven percent) of the S&P 500\(^{239}\) companies asset value comprises of intangible assets such as IP. Only about 13% (Thirteen percent) was in the form of tangible assets such as equipment and infrastructure.\(^{240}\)

While such studies in India are still fairly limited in scope and not as comprehensive, a positive indicator of the rise in intangible asset disclosures\(^ {241}\) by Indian companies makes the case that there is a shift to suggest intangible assets, like IP, would soon be considered as important, if not more than its tangible counterparts.

Many organisations devote much of their resources and focus on managerial tasks in their day to day operations and not so much on intangible assets or intellectual property. A knowledge driven economy and the tremendous growth of information technology and allied products and services warrants a shift in focus of management from purely considering tangible or physical assets and infrastructure of the business alone to one where considerable attention is given to its intangibles.

Any successful enterprise relies on its efficient systems, policies, intellectual capital / human resource and the way it is able to capitalise on market share through its product and service offerings and delivery. The common factor that binds all these is of course sound and effective management. While organisations prioritise on the basis of their requirements on each of the factors that enable it run like a well-oiled machine, management plays a very vital and critical role.

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\(^{239}\) Standard & Poor's 500 is American stock market index based on the market capitalizations of 500 large companies having common stock listed on the NYSE (The New York Stock Exchange) or NASDAQ (National Association of Securities Dealers Automated Quotations).


The case of *Kodak*\(^{242}\) is an example of how poor management decisions led to the filing of bankruptcy proceedings\(^{243}\) by one of the leading companies in the consumer photography business in the United States of America.

Kodak was founded by inventor George Eastman in the late 1800’s.\(^{244}\) The company grew to be a formidable player in the photography business in America when “*it took photography out of the professional portrait studio and into everyday life*”\(^{245}\) by providing cost effective cameras to the public. Kodak was not only well known in the US but also had a strong international presence and made substantial profits from its 35mm camera films.

The company is also credited with the invention and introduction of the digital camera to the world. The digital camera was invented in 1975\(^{246}\) at Eastman Kodak by Steven Sasson and Gareth Lloyd, but was patented only in 1978.\(^{247}\) Furthermore, although earning revenues from their patents, Kodak failed to commercialise and capitalise on their digital camera invention for over 25 years (Twenty-five years) until 2001\(^{248}\), when it finally ventured into the market with the product it had originally invented.

Much like in the case of Xerox, as detailed in the previous chapter, Kodak too failed to completely consider its intellectual property like the digital camera technology it had created

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and poor management decisions led to a lack of comprehending how their own disruptive technology could have worked in their favour. Although Kodak was aware that the digital camera would eventually become a consumer technology and be accepted widely, it “did not anticipate digital toppling film the way that it did”\(^\text{249}\).

From the perspective of poor management decisions, in addition to the non-commercialisation of its digital camera technology at the appropriate time, Kodak also looked at diversification into another business area which was not its core domain strength. In 1988 Kodak acquired an American pharmaceutical company called Sterling Drug for 5.1 billion dollars.\(^\text{250}\) The idea behind the acquisition was to use its chemical engineering expertise to venture into the pharmaceutical domain, however in less than 6 (six) years Kodak was forced to dismantle Sterling and sell the remainder of that business for under 3 billion dollars.\(^\text{251}\)

There are lessons to be learnt from such mismanagement of business and IP decisions. Organisations need to understand that a lot of the times IP and business management and decisions affecting them need to go hand in hand and do not necessarily need to be kept separate from one another.

In the case of Kodak however, to state only poor management as the cause of its downfall from a formidable enterprise to one where it had to be delisted from the New York Stock Exchange\(^\text{252}\) would be to not give the picture in its entirety. Other factors, historically speaking, that came

\(^{249}\) *Supra* note 245.


into play, such as the lack of an effective succession plan\textsuperscript{253} for the company, also perhaps contributed to the eventual filing of bankruptcy proceedings of one of the greatest innovative companies the world had seen.

### 3.3 Importance of IP Management

In any organisation it is important that its IP be aligned with the overall goals of the company. Effective use of IP such as taking an invention to the marketplace is one of the aspects of IPR’s that can help an organisation achieve its desired results. However, innovation requires a thorough understanding of how those IP rights can enable an organisation to successfully use the invention that gives the company a competitive advantage.

It is not only a company’s own IP that needs to be considered while moving from invention to innovation, it is equally important that in order to be commercially viable the company does not infringe on third party IP. Disputes regarding infringement can prove to be extremely costly for any company such as in the case of Adidas America, Inc et al v. Payless Shoesource, Inc.\textsuperscript{254}

Adidas brought a trademark infringement suit amongst other causes of action against Payless in 2001 alleging that Payless was offering shoes with the famous three stripes mark of Adidas. They claimed that the use of the mark would cause confusion with consumers and have an adverse effect on the tremendous goodwill Adidas enjoyed. In 2008, after numerous motions, appeals and judgments the jury verdict found that Adidas’ trademark and trade dress were indeed infringed and Adidas was awarded 304.6 million dollars. Besides the cost of litigation and payout for infringement, such actions by companies can also seriously undermine their goodwill and name in the market. Perhaps efficient management of how best IP was to be understood and utilised could have possibly prevented Payless from being exposed to an expensive payout.

The overall understanding of various IP issues, right from the inception of an idea, that can later result in exploitable IP is a critical aspect that organisations need to fully grasp so as to

\textsuperscript{253} Heather Schreiner, The Rise and Fall of the Kodak Empire, (23\textsuperscript{rd} April, 2012), https://www.csub.edu/kej/_files/KodakEmpire.pdf (Last accessed on 20/02/2018).

\textsuperscript{254} 2002 U.S. Dist. LEXIS 27438.
not falter at a later stage. According to the Research and Development Statistics 2011-2012 published by the Department of Science and Technology (DST) India devoted about 0.88% of its Gross National Product (GNP) to Research and Development (R&D) in 2009-2010.\textsuperscript{255}

With the thrust on innovation through the National Intellectual Property Rights Policy adopted in May 2016, the R&D activities resulting in growth of IP in India are bound to increase steadily. Better awareness and preparedness in IP related issues would be key for all organisations. How IP would have to be efficiently managed and considered in its entirety should be a focal point for companies and organisations in India as innovation and research activities would continue to steadily grow in the country.

In order to comprehend Intellectual Property Management (IPM) in its entirety, it would be beneficial to consider some basic principles/functions and definition of Management as well. A broad look at the meaning of Management would provide an insight to what an efficient IPM system would require. However, at its simplest, the combination of the terms Intellectual Property and Management gives the essence of what this study aims to propose as the holistic concept of IPM.

Any organisation that seeks to successfully obtain its various goals and objectives requires efficient management of its resources, people and policies. To enable an organisation to achieve its desired objectives it is crucial that planning and organising activities are performed effectively and therefore managed well.

3.3.1 Management definition

Harold Koontz (1909-1984), an American organisational theorist, in his paper suggests that management is:

\textit{“The art of getting things done through and with people in formally organized groups, the art of creating an environment in such an organized group where people can perform as individuals and yet cooperate toward attainment of group}}

goals, the art of removing blocks to such performance, the art of optimizing efficiency in effectively reaching goals”\textsuperscript{256}.

Henry Fayol (1841-1925), a French classical management theorist, also regarded as the father of modern operational-management theory, in his work \textit{General and Industrial Management}\textsuperscript{257} outlines Managerial functions and what it takes to ‘manage’ and states that

\begin{quote}
“\textit{to manage is to forecast and plan, to organize, to command, to co-ordinate and to control}”\textsuperscript{258}.
\end{quote}

As Fayol points out in his definition management requires the crucial functions of forecasting, planning, organising, commanding, co-ordinating and controlling. Given that every organisation has its own little nuances and aspects which are exclusive to the functioning of that organisation a broad look at what Fayol provides as a definition of management enables one to see how each of those crucial functions play a role in efficient management systems.

For instance, all the functions of management require planning in great detail for the successful execution of the work desired to be undertaken. In the case of IP as well, detailed planning right from the inception of an idea through to taking that idea and converting it into exploitable IP is an important task. The entire process of IP development if not understood and managed efficiently could result in substantial losses to organisations. The functions that Fayol outlines for effective management would be equally applicable to any IP process or system in an organisation.

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\textsuperscript{257} Translation of: ‘\textit{Administration industrielle et générale’}, Translated from the French ed. (Dunod) by Constance Storrs. With a foreword by L. Urwick. Published by Pitman, 1949.
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\textsuperscript{258} For a reading on Fayol’s work on Managerial functions see David Lamond, \textit{Back to the Future: Lessons from the Past for a New Management Era}, https://www.researchgate.net/publication/236111473_Back_to_the_Future_Lessons_from_the_Past_for_a_New_Management_Era (Last accessed on 20/02/2018).
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An organisation which does not focus on management of its IP would be faced with unwarranted risks as also losing out heavily on the value and benefits that IP may provide.

It isn’t the planning of any strategy in detail alone that matters, companies need to ensure that how that plan, policy and strategy is finally executed is of equal importance. Execution of any strategy or policy needs to be successful for the company to succeed in achieving its goals.

It is common knowledge that any policy or strategy of an organisation is only as good as its execution. An organisation that has a well thought out policy with poor implementation could be worse off in the long run than a company with mediocre strategy but excellent execution.259

Effective and efficient management tries to do essentially just that, ensure that a sound policy or strategy of the organisation has been duly implemented as desired so that the company meets its actual goals and meets its intended targets. Companies that constantly innovate are bound to see their profits increase as also see an overall growth in their performance.260

However, merely innovating is not enough if such intangible assets and IP are not efficiently managed before and after they are introduced into the market. The Hewlett-Packard Touchpad is one such example of a product failure which resulted in huge losses for the company. The HP Touchpad was launched in July 2011 to compete with the Apple iPad, but in under 7 (Seven) weeks from the date of its launch the company not only slashed the prices but also announced it would discontinue the product.261


Being a leader in the Personal Computing market and taking such a big hit with one of its products, HP suffered losses and saw a substantial drop in its share prices as well.\(^\text{262}\) There are a number of reasons for the failure of the HP Touchpad but failure to align the various objectives of R&D with their marketing and innovation capabilities is one such reason. HP merely reacted to the Apple iPad and launched the Touchpad instead of understanding what the market and consumers really needed.\(^\text{263}\)

Every organisation needs to have some strategy in place to help meet its business goals. Merely adopting a well-known strategy because it may have worked for a competitor would not be an ideal situation. Innovation & IP strategy should form part of the overall business strategy of an organisation.

There are various factors such as, creative / innovative capabilities, financial resources, field of technology, competitive environment, etc that help an organisation determine its overall IP and innovation strategy. Nevertheless, companies ideally should consider aligning their IP strategy with their overall business goals.

An organisation that also exports its products to various countries needs to consider implications of the various legal regimes. Some countries offer strong IP protection and some do not\(^\text{264}\), and companies need to factor in those issues as well while formulating any IP strategy vis-à-vis their business objectives.


\(^{264}\) See generally *The International Property Rights Index*, http://internationalpropertyrightsindex.org/countries (Last accessed on 20/02/2018).
For instance, The Gillette Safety Razor Company had a sound IP oriented approach to its overall growth and at one time in 1998 its IP and intangible assets accounted for over 85% (Eighty five percent) of its asset value.265

The case of Gillette is one where the IP strategy played a pivotal role in the phenomenal growth of the company. The company capitalised not only on its patents but provided a thrust to its trademark and ensured that they created substantial brand value and good will amongst their consumers. Innovation was the key at Gillette, James M. Kilts who was the Chairman and CEO of the company prior to its acquisition by Procter & Gamble in 2005 had stated that the vision of the company was to: “Build total brand value by innovating to deliver consumers value and customer leadership faster, better and more completely than our competitors”266.

Gillette is a great example of how a company that got its first patent for a safety razor in 1904267 went on to successfully innovate in consumer products and ensured that its IP and business strategies were well aligned to meet its objectives and business goals. This is perhaps one of the reasons why the company was finally acquired by P&G for 57 billion dollars.268

The failures of Kodak and HP and the success story of Gillette, as also numerous other such cases, highlight that IP and efficient management of the same has to be considered from a holistic perspective and not looked at in a piece-meal fashion.

No matter the size of the organisation or its innovative capacity it is imperative that any IP strategy be well aligned with the company’s business goals and objectives and managed effectively.


266 TONY DAVILA, MARC EPSTEIN & ROBERT SHELTON, MAKING INNOVATION WORK: HOW TO MANAGE IT, MEASURE IT, AND PROFIT FROM IT, 6 (Pearson Education India, 2008).


3.4 Management of Intellectual Property – Current Practices

“Any company wishing to prosper in the next millennium will also have to efficiently manage its IP portfolio. For this reason, it has become essential that every manager in the enterprise - not just those working in the corporate legal department - appreciates and understands not only what IP is, but how it can be more effectively exploited”\textsuperscript{269}.

Prophetic words from Dr. Horst Fischer about two decades ago and something that organisations in India need to consider seriously if they wish to be competitive and innovative enterprises to sustain in the global knowledge driven economy.

The awareness with regards to Intellectual Property at all levels and its accompanying issues in India is yet to gain ground and develop into a more significant understanding as compared to other developed nations. IP Management systems are very specific to organisations and are more or less a domain ventured into by the bigger more resource capable enterprises. A lot of the practice of IP Management, however, is looked at from a very selective perspective. Organisations tend to focus more on their IP rights (and more so from a patent heavy outlook) and do not necessarily consider IPM in its entirety.\textsuperscript{270}

Most of the literature on the management of IP in today’s context is focussed on a very piecemeal approach and more so studied extensively in other jurisdictions. Current practices of IP management within organisations in India are varied and tend to be concentrated upon managing existing IP that the firm has developed or acquired. For instance, an organisation that has a patent to its name will focus on managing that patent alone rather than see the management of IP from a holistic perspective.


A study on IP Management in the Indian context considers the practices at the Indian Institute of Technology, Bombay where the Institute has adopted an Intellectual Property Management System (IPMS) through the creation of an IP Policy. An important aspect of the IPMS as described by the authors of the study is the creation of an IPR Cell, a body within the institute created by virtue of an IP Policy that helps “administer IP creation, research and education, and spin off firms”.

The authors go on to highlight that the adoption of the IPMS has

“contributed to the institute in terms of increase in IP filings, technology transfers, and introduction of several new research programmes”.

As per the Annual Report (2014-2015) from the Office of the Controller General of Patents, Designs, Trademarks and Geographical Indications, Government of India, the IIT’s collectively had the highest number of applications for patent filings amongst Indian Universities. IIT Bombay alone has seen a substantial growth in Patent filings since 2008 and saw about 128 applications filed in 2015-2016.

The Indian Council of Agricultural Research (ICAR) an autonomous organisation under the Department of Agricultural Research and Education (DARE), Ministry of Agriculture and Farmers Welfare, Government of India has established an Intellectual Property &Technology


272 *Id.* at 332.


Management (IP&TM) Unit. The unit since October 2006 has a “decentralized three-tier IP management mechanism that is institutionalized in ICAR” 277.

The IP&TM Unit oversees all matters related to intellectual properties and technology transfer/commercialization. A reading of the ICAR website also lists numerous innovations that have been seen in Agricultural practices from all across the country. The innovations are a result of the institutionalisation278 of a proper Management system in the IP and technological sphere at ICAR which provides tremendous support to its various organisations.

Organisations that have the resources available to them also use technology and docketing software to help them manage their IP. However, the deployment and use of software is an additional cost that has to be borne by the organisation and one which may not yield the desired result. Studies suggest that there is a “decreasing use of IP software along the IP value chain”279.

The Gassmann et al. study also found that the providers of IP Management software needed to be more adaptable to user requirements and would need to develop more integrative systems. In countries, such as India, where adoption of technology for regular business functioning would be first priority, organisations may not look too favourably in expending resources on technology that caters to IP specific issues alone.

The use and engagement of technology, as also awareness of the same is relatively low in Micro and Small enterprises in India.280 While the benefits of adopting technology for business functioning does have a positive and overall impact on the growth of the business, the costs


associated with technology adoption make the use of technology, especially IP Management software systems, a potential barrier to its deployment.

The Ministry of Micro, Small and Medium Enterprises (MSME), Government of India, Annual Report (2014-2015)\textsuperscript{281} on MSME’s has a projected number of 488.46 lakh enterprises as on 2013-2014 which accounts for 37.54% of the total Gross Domestic Product (GDP) of India. Given the innovative capacities in MSME’s it would be useful for these organisations to consider IP Management as an essential process within their businesses.

The Jain and Sharma paper on the use of IPMS at IIT Bombay and the Rao and Sastry study on IP Management systems at ICAR is testament to the fact that any organisation that adopts a system to manage their IP efficiently would reap the benefits in the long run. Having said that, given the innovative capacity of Indian firms and organisations, it is important to consider IPM from the perspective of the enterprise’ individual and unique requirements.

A standard form management system may not suit the requirements given the different goals of organisations as also their internal functioning, departments and divisions. For instance, the IP requirements of a marketing-oriented organisation would be far different from the IP issues faced by an educational institute. This however should not be an excuse for companies, organisations and institutes ignoring the IPM process altogether, rather it should drive enterprises to adopt or create systems and processes that suit their individual requirements.

\textbf{3.5 Empirical Analysis of Current Practices}

Given its nascent stage, studies on practices of Intellectual Property Management within organisations specifically in the Indian context are minimal at best. It is still too early to assess the impact of the National IPR Policy approved by the Government of Indian in 2016 and the impetus it is likely to provide on IP development and its management. While data on IP filings are available, the empirical analysis of IP Management practices in India is something that needs to be studied in greater detail as also specific to industry types. From an international perspective, the empirical analysis of IP Management practices in India is something that needs to be studied in greater detail as also specific to industry types.

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perspective, a rather eye-opening report\textsuperscript{282} that was published by the National Science Foundation\textsuperscript{283} in 2012 which surveyed\textsuperscript{284} around 40,000 US companies across industry segments found that a “vast majority of them believe that IP rights are of no importance at all”\textsuperscript{285}. Although the survey is close to a decade old, it is telling of the attitudes of companies even in jurisdictions where the enforcement and protection of IP is fairly strong.

This section of the study attempts to gauge, from a macro perspective, the practice, systems and processes undertaken and adopted by organisations operating out of India across various industry segments and how they view the various components of IP Management.

A questionnaire (Appendix-I) was created and sent out to various organisations across India. Any and all industry types could potentially face some IP issues or the other at any point in time. The rationale behind not targeting any specific industry type was to help determine how various industry segments view IP and its allied issues and not confine the study to a Patent management perspective alone and that would also help do away with any potential confirmation bias.

It is not the intention of this survey to understand what processes organisations specifically adopt, but rather understand how they comprehend the various issues involved in the Management of Intellectual Property at a broad level. The nature of the questions in the survey are such so as to enable a quick and fairly straightforward response. Upon discussion and feedback from various Company heads and personnel it was decided that no proprietary information of any kind should be sought through the questionnaire.


\textsuperscript{283} The NSF is a Government Agency in United States of America, founded in 1950 for the purpose of supporting research and education in all the non-medical fields of science and engineering.

\textsuperscript{284} The Business R&D and Innovation Survey (BRDIS) launched in 2009 by NSF and the U.S. Census Bureau asked US companies to report on the importance of various types of IP protection to their organisation in 2008.

This survey has also highlighted, amongst other things, the lack of awareness within organisations on issues pertaining to the management of IP. There was a total of 51 respondents to the survey and the findings are outlined below provide an insight to the various aspects of IP Management and how organisations view the crucial components that are integral to a comprehensive IP Management process. This empirical analysis is based on a convenience sample.

Out of a total of 51 respondents the breakup within industry segments was as follows:


The ‘Other’ represents those businesses that did not qualify specifically under any of the specific types listed. These include the hospitality and financial sector.
With respect to the size (employee strength) of the respondents there were a total of:

a. 11 small organisations (less than 20 employees),
b. 15 medium businesses (between 20 to 99 employees),
c. 11 medium to large enterprises (between 100-500 employees),
d. 14 large companies (over 500 employees).

As can be seen from the chart and data collected above with respect to the size of the industry, there was a healthy representation of the various sizes of the organisations. The near equal representation vis-à-vis size is relevant as it shows how industries across the board and irrespective of size view intellectual property issues.

The next question that the respondents had to answer was on the types of IP rights that the organisation owned or made use of. This was essential to help determine how companies view IP. A significant finding here was that Trademarks were of a higher number than all other types of IP. One assumption that may be made here is organisations do not necessarily view trade secrets and other intangible assets as part of their IP holdings otherwise the response to the ‘Other’ option would have been significantly higher.
The respondents were asked if their organisation had any policy pertaining to intellectual property specifically and it was found that only about one fourth ($\frac{1}{4}$) of the organisations had any policy in place. This finding is noteworthy as the starting point for any move towards implementing a system to consider IP issues would be to have a comprehensive policy in place.

![Fig 3: Types of IP](image)

![Fig 4: IP Policy](image)
On how the organisation helps capture ideas that could lead to development of intellectual property, respondents were asked if they had any database (similar to a knowledge management system) where ideas given by employees was maintained or stored. Here the results seemed better as over one third (1/3rd) of the respondents, or about 19 of them, had some system in place.

A critical component to help oversee intellectual property issues within organisations would be to have a dedicated IP Committee or Cell. In this regard respondents were questioned whether any such division within the organisation existed at all. About 41 organisations i.e. about 80% of the responses showed that there was no such department within the organisation.
As a follow up to the question regarding a dedicated IP Committee, respondents were asked if all departments of the organisation were represented in the Committee. Needless to say, the question was not applicable to the 41 respondents who did not have any Committee, out of the 10 that did have some sort of a dedicated department there was an equal split between those that did have cross representation and those that didn’t with 5 each responding in the affirmative and the negative.

The next question required respondents to select the role, if any, of the IP committee vis-à-vis IP in the organisation. Here there seems to be an aberration on the number of responses, however, it is likely that this question was taken in the context of how organisations consider some IP issues and some respondents seem to have answered irrespective of whether they had a dedicated IP Cell or not. In all, however there were 39 respondents who felt this question was not applicable to them, 2 less than the 41 who had answered in the negative regarding having any sort of IP committee within the organisation.
Respondents thereafter were asked a question which is absolutely critical to ensure that a company’s IP and intangible assets are kept secure. Organisation were asked to respond whether as a general rule do all employees and consultants sign non-disclosure / confidentiality agreements with the organisation. The respondents had to respond in the affirmative, the negative or whether it was a situation specific task undertaken by the organisation. It was noted that while the majority of the respondents did have this a general rule, 13 respondents took this to be a situation specific issue and 9 responded in the negative.
Infringement and a lack of understanding on the existence of competing and similar intellectual property to what the company is creating / developing can become a major problem for organisations. Respondents in this regard were asked whether during the course of IP development regular searches were conducted to look for competing IP in the similar field. Organisations were asked to respond in the affirmative, negative or select whether it was situation specific task.

One of the key methods of ensuring intellectual property and its various issues are considered seriously across the organisations is to have programs for employees on IP. Respondents were questioned on whether the HR department of the company organises any training programs / workshops in IP related issues for the employees. 40 of the respondents stated in the negative, an issue that organisations must look to address.
An IP concern that does not necessarily get much attention is when employees who have worked on IP or have been involved in its development leave the organisation or infringement issues when employees join the company. It is imperative that the organisation keep detailed documentation on which employees have contributed to IP creation and development so that there are no concerns, regarding assignment for instance, at a later date. Respondents were asked whether their HR process of recruitment and exit interviews had any provisions vis-à-vis IP that employees may have worked on. Here again over 75% or 40 of the organisations had no such system in place.

The next question required the respondents to state the policy regarding ownership of IP. Here as assumed IP ownership was mostly with the organisation, with specific flexibilities.
To enable and encourage innovation it is important that an organisation set aside a percentage of its turnover for research and development activities. Respondents were therefore asked if any such mechanism existed within their organisation. While not seeking specific details, respondents were also given the option of not answering this question in the event they felt it was proprietary information being sought.

Respondents were then asked to state whether they licensed in any intellectual property from third parties for use in their business.
A follow up question which was more applicable to those who responded in the affirmative on licensing in intellectual property was thereafter put forward.

Respondents were asked to answer if there was any due diligence conducted prior to licensing in IP from third parties. Due diligence is imperative so that organisations are assured that the IP being licensed is in itself not infringing any other third-party IP.

Intangible assets and IP are now subject to accounting standards and can be valued and assigned a figure. If undertaken as an exercise this can help an organisation substantially increase its value. Respondents were asked if their organisation reflected its IP and intangible assets in
their balance sheet. About 82% or 42 of the 51 respondents did not have their intellectual property reflected in their balance sheets.

![Fig 17: IP Valuation](image)

Intellectual Property can act as a tool to obtain finance for a company, perhaps an easier process if valuation is undertaken. Respondents were then asked if their organisation had ever leveraged their IP to seek finance or used it as business collateral. An option to not answer was also given to the respondents as feedback received while creating the questionnaire suggested that company’s may not be willing to share, even if it seems ambiguous. It was nevertheless encouraging to note that at least 4 of the respondents had sought finance using their IP.

![Fig 18: Financing through IP](image)
Audits are essential tools to completely help comprehend what all IP and intangible assets are owned or under the company’s control. Respondents were asked if they conducted regular audits of their intellectual property.

The next question required respondents to state if their organisation had ever taken any legal action to resolve a dispute over IP rights. There were 10 respondents out of the 51 that had taken some legal action.

Again, as a follow up question for primarily those that had responded in the affirmative regarding having taken legal action, respondents were asked for their opinion on whether such
legal action could have been avoided if established policy, procedures and legal barriers to infringement had been put in place within the organisation.

Lastly the respondents were asked to rank in order of priority what they foresaw as their biggest challenges to the organisation in the area of intellectual property management. While ranking in order of priority, 1 was the highest priority and 5 the least. Here the respondents were allowed to assign the same level of importance to more than one option. It is interesting to note that none of the respondents felt that creating a portfolio of IP rights and protecting those rights had least priority, rather it ranked the highest in terms of the second most important challenge that organisations saw. It is positive step in terms of seeing how companies are perhaps beginning to understand the importance of IP.
As has been seen from the result of the survey, most of the respondents across industries do not necessarily cater to the idea of IP Management in its entirety. Even large corporations are not completely IP aware and would need to do a lot more internally to ensure that they manage their IP efficiently.

3.6 Integrated Approach to IP Management

As has been noted previously in this study, in the current economic environment, IP is no longer merely the domain of legal officers and legal managers in organisations. It is not only a legal function alone but has gone beyond such function and involves decision making and strategic initiatives from the organisations management as well. In order to efficiently extract value from an IP portfolio it is imperative that any IP strategy be well aligned with the overall business objectives of an organisation.

The failure to align an organisations IP strategy with its business objectives can lead to faulty or hurried decision making vis-à-vis use of IP without a long-term vision.
When the management of IP is seen mostly on a piecemeal basis, any IP strategy alignment on such a fractured basis, with an organisations overall goals it is likely to become a cumbersome exercise and, in some cases, maybe even impractical to the welfare of the organisation. Loss of business, market share and a resultant loss in IP value extraction and protection are some of the drawbacks of a piecemeal approach towards managing IP.

The internal functions and divisions of an organisation, more often than not, work as a cohesive single unit to achieve business and organizational goals. The development, use, exploitation, and protection of an organisations IP is an equally integral part of that cohesive single unit. Looking at IP separate from the overall business goals can render the IP redundant or make it a white elephant for the organisation.

The essential aspect of a holistic perspective to IP Management is ensuring that right from the generation of an idea through to development and exploitation of the company’s IP, all departments are involved in the process as also every step is managed efficiently. In order to see a company’s IP as an integral part of its working a certain level of awareness within the organisation on IP, its functions and systems is an absolutely essential element.286

In order for organisations to consider long term implications and impact of IP and its strategy alignment with the overall business objectives it is crucial to consider the management of IP from a holistic rather than piecemeal perspective. A well-rounded approach to IP management entails the involvement of every stakeholder in the organisation and not merely senior management and legal officers alone.287

An all-inclusive method of IP management would require that the organisation include its manpower from the various departments and divisions of the organisation to collectively deal with the IP strategy. Internal communication and dialogue with the various individuals of the


organisation in the IP management process would be key to its successful implementation and functioning.\textsuperscript{288}

Organisations that have considered a holistic approach to the management of their IP have also seen business success and value extracted from such an inclusive approach. Bishop Steering, a company incorporated in Australia took a holistic method to managing their IP efficiently.\textsuperscript{289} Specifically, Bishop Steering ensured they protected not only their products but also their processes, adopting what they called “a layered IP Structure”\textsuperscript{290}. While IP strategies can differ from one organisation to another it is imperative that all such strategies are in compliance with the overall policies of the company.

Another such case of holistic management of IP which gave substantial value to the company is that of Husky Injection Molding Systems Ltd., a company which is a “leading supplier of injection molding equipment and services to the plastics industry”\textsuperscript{291}. The company has a worldwide presence including offices in Chennai and Mumbai, India. When the company faced a situation of having to cut its legal costs without exposing itself to too much risk as also discouraging innovation, it decided to implement a holistic IP strategy.

A key component of their IP strategy was decision making “with the knowledge, expertise and input of cross-functional teams from a range of different corporate departments”\textsuperscript{292}. The authors of the article state that although the systems were created and strategy adopted and developed specifically for Husky, any global enterprise that faces complex IP issues could

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\textsuperscript{288} \textit{Supra} note 286.
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\textsuperscript{290} DEREK BOSWORTH, \textit{THE MANAGEMENT OF INTELLECTUAL PROPERTY}, 194 (Edward Elgar Publishing, 2006).
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\textsuperscript{291} \textit{About Husky}, http://www.husky.co/EN-US/About-us.aspx (Last accessed on 20/02/2018).
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benefit from implementing similar systems. It is their contention that a holistic approach is a sound strategy to managing IP across industries.

To understand a holistic perspective and why it is essential and a beneficial approach it would be important to see the role of the various departments in an organisation vis-à-vis IP and how each such department has some responsibility when it comes to understanding a company’s IP. The various departments of an organisation each have some interaction with, and also a part to play in, the company’s IP.

Company structures are varied and different organisations have diverse departments which serve the organisations requirements. Even within specific industry segments an organisation's structure can differ from one to another. While number and nature of departments within a company could differ significantly, a typical organisation would have a few common divisions and departments. For the purpose of understanding roles of various departments of an organisation in the context of IP, a generic broad-based structure with certain commonalities among companies is being considered below.

Generally speaking, a typical business set up in the manufacturing segment, for instance, would have a) Research & Development (R&D) b) Purchase and Production c) Sales and Marketing d) Human Resource e) Accounting & Finance and f) General Administration departments as some of the main functions in a company.

Each of these departments have some responsibility and function or the other towards IP, which can have an impact on the business. Outlined in brief below is the manner in which each of these departments have a function vis-à-vis an organisation's IP and other such IP issues.

a) **Research & Development (R&D):**

The R&D department is perhaps the most important of all divisions within an organisation when it comes to the creation of IP. Innovation for products and processes start when the R&D activities of a company are strong. New and innovative products of a company are vital to its business growth. However, if the R&D activities do not have a clear IP strategy it is very likely that investment of time and resources in research would go to waste.
Potential infringement of a competitors or third-party IP can cause the organisation heavy losses if due diligence and search for competing or similar IP is not conducted prior to development of the product or process.

It has been the experience of this author, as part of a consulting assignment, where an organisation spent 6 (six) months of time and resources creating a product which could have potentially saved the company a substantial amount of money. However, in the course of the consulting assignment it was found that a similar product had already been patented in the market where the company had a substantial presence. The company was clearly looking at a potential infringement suit had they gone ahead and marketed or sold the product in that jurisdiction.

It is common knowledge that R&D activities have a heavy inter play with IPR’s and there is a plethora of issues and concerns faced with respect to IP. It would, however, suffice to say that R&D in organisations is one of the most important activities that companies need to consider in the context of IP strategy and its efficient management.

b) Purchase and Production:

The Purchase department in an organisation is responsible for the procurement of raw materials and other goods for the purpose of ensuring that the company is able to produce and supply its own products to the market. While quality control is the cornerstone of the functioning of a purchase department, an equally important aspect is the buying of materials/goods which do not infringe on third party IP or are counterfeit in nature. Awareness on IP issues among the personnel of the purchase department is crucial to ensure that the business does not inadvertently obtain/purchase counterfeit products exposing it to potential infringement liability.


294 PEGGY E. CHAUDHRY & ALAN ZIMMERMAN, PROTECTING YOUR INTELLECTUAL PROPERTY RIGHTS- UNDERSTANDING THE ROLE OF MANAGEMENT, GOVERNMENTS, CONSUMERS AND PIRATES, 7-31 (Springer 2013).
The Production department, among other things, is responsible for producing the goods and converting the raw material received from the Purchase division to a finished product. This department has a series of processes in place to provide the final output. Quality of the finished good as also ensuring that the specifications given by the R&D department are some of the important function of this department.

There are also times when innovation takes place on the production line itself. A process innovation\textsuperscript{295} is one where there is an “implementation of a new or significantly improved production or delivery method”\textsuperscript{296}.

A process innovation enables the generation of value to the organisation by saving time and resources in the production method and can have a significant impact on the IP portfolio of the company. Identification, use and protection of the innovations are key to successfully utilising the IP created by the Production department and in the overall management of company IP.

c) Sales and Marketing:

The Sales and Marketing function in an organisation helps the company in various aspects such as product promotion, selling strategies and market research etc. Although Sales and Marketing activities are separate functions altogether, nevertheless they are closely linked and critical to an organisations success.\textsuperscript{297}

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  \item \textsuperscript{295} Stefan Schrettle, \textit{Managing manufacturing process innovation new manufacturing technology adoption as a dynamic capability}, Dissertation no. 4179, University of St.Gallen, 2013.
  \item \textsuperscript{297} Sarina Rehme & Carsten Rennhak, \textit{The Conflict Between Marketing and Sales}, 8(2) Innovative Marketing, 74 (2012).
\end{itemize}
Besides dealing with different kinds of IPR’s with respect to their various activities, the Sales and Marketing teams need to also ensure that the organisation's brand name is displayed prominently and adequately on all company material. Brand positioning and ensuring that customers recognise and are able to differentiate the company’s brand from that of its competitor is again an important function of this department.

Goodwill in the market is important to help establish a dominating presence for any company to help capture the market share it desires which further results in profits and growth for the organisation.

The market research function regarding collecting data with respect to the needs and preferences by the department should tie in well with the brand positioning that the company would ideally like to make for the benefit of its target audience and customers, as also help the company prevent any possible infringement.

The department plays a crucial role in the product innovation cycle of an organisation. Creating appropriate marketing and sales slogans, catch phrases for the company’s various marketing and promotional activities, as also providing inputs on trademarks and tradenames for the various company products are essential functions of the Sales and Marketing department.

d) **Human Resource:**

The management of personnel in an organisation is the responsibility of the Human Resource (HR) department. This department could possibly be considered the backbone

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of a company as it deals with its human capital, the people who are directly responsible for, and have an impact on, IP generation and creation.\textsuperscript{300}

All IP assets of a company are intrinsically linked to its personnel and employees, that is to say any company IP only comes into existence when the employees create such intangible assets. An organisation’s HR has a crucial role to play when it comes to the holistic approach to IP Management. Right from the primary function of recruitment the HR needs to be aware of and include aspects of IP related documentation when hiring new employees.

Employment contracts should incorporate provisions on disclosure of any IP that potential employees may have worked on for previous organisations. Such disclosures and information from employees can lead to the prevention of possible misuse or infringement of a competitor’s intangible assets including trade secrets.

Furthermore, the HR documentation should also outline the confidentiality obligations of the employees, besides ensuring other IP related documentation such as Assignment forms are also well maintained. Employees also need to be made aware of any IP policy that an organisation may have adopted. Training and awareness workshops, a critical function of the HR department, on IP issues go a long way in educating employees about the importance of IP for an organisation.

Policies on incentives for those who have worked on or created IP, while being a fringe function of IP Management, helps in creating an innovative and creative atmosphere in an organisation. This in turn enables an organisation to be more IP oriented and aware of the various nuances of intellectual property.

\textsuperscript{300} Dave Croston, \textit{What HR needs to know about intellectual property}, (\textit{7th} September, 2009), http://www2.cipd.co.uk/pm/peoplemanagement/b/weblog/archive/2013/01/29/what-hr-needs-to-know-about-intellectual-property-2009-09.aspx (Last accessed on 20/02/2018).
At the time of an employee leaving the organisation, exit interviews should ideally have details of IP that employees may have worked on during their tenure in the company. Such documentation helps an organisation in protecting its IP at a later date and complying with the various IP office stipulations when applying for protection of the IP including assignment requirements.

Retention of employees and human capital as also recruiting the right kind of personnel is an important function of the HR department. It is important that the HR in an organisation are made aware of IP systems that may help them in contacting resource personnel for the company in the event specialised knowledge of any particular domain is required.

For instance, a company may consider the development of a particular technology, the HR can use patent data to find the right people that the company can contact for consulting or employment opportunities. While not necessarily a core IP Management function, it is still a useful aspect of a holistic outlook to IP issues within organisations. Overall the HR department is an important stakeholder when it comes to understanding IP Management from a holistic viewpoint.

e) Accounting & Finance:

The Accounting and Finance department of a company is also a key stakeholder in the overall aspect of IP Management for any organisation. Traditionally this department is considered to be one which handles money transactions and has the responsibility for ensuring the fiscal health of the company. However, the growing trend of using IP

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and intangible assets as collateral\textsuperscript{304} for credit enhancement, loans and other finance options around the world\textsuperscript{305} makes the accounting and finance department a key player in the IP Management process.

The trend of “IP asset-backed securitizations are most common in the film and music industries”\textsuperscript{306} globally but are now being seen in other sectors as well. While internationally many cases of use of IP in financing options have been seen\textsuperscript{307}, India too has witnessed such a transaction. Deccan Chronicle Holdings Ltd (DCHL), a Hyderabad based company had mortgaged the trademarks of four publications it held in favour of IDBI and got a term loan of Rs. 250 Crore in 2012.\textsuperscript{308}

In order for a company to seek credit and use their IP as collateral, it is important that the intangible asset is assigned an appropriate value. Valuation of the IP\textsuperscript{309}, another integral component of a holistic approach to IP Management, however is still at its nascent stage and has a myriad of aspects that would need to be considered by organisations.\textsuperscript{310}

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The accounts and finance departments need to also consider adopting the various valuation methodologies\(^\text{311}\) for the purpose of reporting of IP and intangible assets in a company’s balance sheet.\(^\text{312}\)

In February 2015, the Ministry of Corporate Affairs, Government of India notified rules\(^\text{313}\) regarding accounting standards which stipulated timelines\(^\text{314}\) for the implementation of Indian Accounting Standards including the accounting for intangible assets.\(^\text{315}\)

f) **General Administration:**

The General Administrative functions are varied and the department can act as a support system for the various other divisions of an organisation. Effective communication between departments, maintaining security and ensuring logistical support are amongst the several tasks that the administrative department can perform.

From an IP Management standpoint, the administrative department can play an important role in the process of IP audits, another key facet of a holistic IPM system. The Oxford dictionary defines an audit as “A systematic review or assessment of something”\(^\text{316}\). An IP audit is therefore defined as “a systematic review of the IP assets

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\(^{313}\) The Companies (Indian Accounting Standards) Rules, 2015.

\(^{314}\) PWC, *Ind AS: India’s accounting standards converged with the IFRS are here!* http://www.pwc.in/assets/pdfs/services/ifrs/ind-as-notification-of-rules.pdf (Last accessed on 20/02/2018).


\(^{316}\) *Audit*, https://en.oxforddictionaries.com/definition/audit (Last accessed on 20/02/2018).
owned, used or acquired by a business. It entails taking a complete inventory of the IP that a company has, including those intangible assets that are under development.

Auditing of IP at its developmental/creation stage enables mitigating any potential infringement claims later as also proving ownership/priority date when it comes to patents, for instance.

While IP audits can be conducted for very specific purposes, an exhaustive and thorough audit process is beneficial in the IP Management ecosystem. An IP audit further helps the accounting and finance department in their reporting of intangible assets in the company’s balance sheet and should ideally be carried out at the least annually.

Furthermore, teams within the administration department can also help in identifying when the company’s intellectual property is being infringed. Necessary and timely action can not only help in protecting the organisations IP but also prevent in spurious and counterfeit products from doing any long-term damage to a company’s good will. A news report from April 2017 reported that a Company, SKF India, along with authorities had conducted raids in the city of Pune, Maharashtra and seized counterfeit products with the SKF marks worth Rs. 5 Million.

The various departments of an organisation play different roles with regards to Intellectual Property Management. Right from awareness on IP, to the genesis of an idea, resulting in identification, development and protection of that idea into exploitable and commercially


viable IP and through its life cycle by auditing, valuing, monitoring and enforcing the IP, effective and efficient management at all stages by the various departments is key to an organisations IP success.

3.7 An Ontological Approach to IP Management

Earlier in Chapter 2 we were introduced to the concept of Ontology from a philosophical perspective and how it has been applied in the information and computer science domains to develop various technology applications. The study further provided an overview of the benefits of using ontology in the IP Management process.

This section of the study will consider a broad framework as to how ontology can be considered and applied to the creation of an IP Management process. As stated in Chapter 2, the aim of this study is not to create an ontology or even define ontologies specifically, but simply to provide the contextual basis on how it would be pragmatic in the IP Management ecosystem development.

In order to fully comprehend a holistic approach to IP Management, i.e. from the creation of an idea through to exploitation and protection of IP that is created, the application of ontology would be useful to specify actions / concepts /tasks and functions. With the use of ontology classification of systems and functions, that can be easily identified, by the organisation becomes a simple and logical task.

As noted in the previous section of this chapter, every organisation has different divisions, departments, and even nomenclature for those department may vary, with only some certain specific commonalities. Every organisation can therefore consider creating through the implementation of an ontological processes their own unique systems which incorporate the various IP Management components, tools and tasks, given that a one size fits all would not be a sound system or strategy. Such systems which should be shared amongst their various departments would still be unique to their specific requirements.

For instance, when a holistic IP Management process is to adopted the first task would entail defining the specific roles and functions of the various departments and divisions of the organisation in the entire process within the context of the company’s overall business strategy.

The role of each department in the process should highlight in detail how the task of that particular department is relevant to the process and its contribution to the overall IP Management system. Such a clear understanding makes it simpler for the department to actively contribute to the process on the whole. Once these tasks have been assigned the various tools that enable the performance of those functions should be clearly outlined.

The relationship between the tasks, and the tools used to undertake and perform those tasks are imperative and should also be formally well defined within the process. The formal relationship that is shared between the departments, their roles in the process and the tools that may be used to perform the functions enables the creation of a common understanding of the entire process.

When the IP Management process needs to be understood and implemented into an organisation’s overall functioning, the various classifications, terminologies and relationships between the various functions within the process become easier to identify and define through an ontological scheme.

Adopting or creating an IP Management system through the use of ontology would be immensely useful for Indian organisations. In the Indian context, where small to medium enterprises, as noted before, have a lot of innovation but do not necessarily use adequate information technology infrastructure for their business processes, the creation of a holistic IP Management process would help them incorporate IP in their overall business strategy.

An added advantage to the use of ontology would also be the implementation of proprietary software for the IP process once the benefits of the manual system are seen. Customised


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systems would be far easier to implement within the organisation as the process would already have been well structured and awareness amongst employees would ensure a smooth transition to using those systems.

This does not mean that no information technology systems are to be utilised in the first instance at all. In fact using information technology would make the task of managing IP easier and should ideally be incorporated as an essential tool within the process. There are a large number of systems available that cater to issues pertaining to the management of IP and organisations should fully comprehend and incorporate systems that best suit their requirements. Many systems exist that cater to some aspect of managing IP, yet they may not necessarily meet the individual and specific requirements of the organisations.

The rationale behind introducing the aspects of ontology for the creation of an IP Management process was to lay the foundation and promote the idea of using this method to outline the system. As mentioned earlier the creation of an ontology is in itself a mammoth task and further research on its efficient and effective use is warranted to take this emerging area of IP Management forward.

It is this researchers belief that the foundation of a strong IP Management process can be built through the use of Ontology and organisations can greatly benefit by using this methodology of in the creation, adoption and implementation of the IPM process. Furthermore, standardisation of general aspects of the IPM process can also be achieved once the ontological approach to the IPM system is adopted and strong foundation laid for this very important aspect of an organisations functioning.

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325 *Supra* note 279.
3.7.1 Conclusion

To enable a comprehensive system or process and for sound management / governance, policies at the organisational level and legislation / rules at the State / Governmental level play a pivotal role. Quality policies and legislation to give force to what is intended is as important as the idea in itself. Therefore it is imperative that policies and legislation should be “appropriate, adequate and precise in solving the problem it is intended to solve”\textsuperscript{326}.

Putting systems into place without any formal structure and without any guidelines would make such systems redundant or could eventually lead to its failure. This is true both at an organisational and the governmental level.

The next chapter will focus on legislation, albeit still a bill at this moment, which has been proposed by the Government of India, that requires intellectual property management systems to be put into place for organisations that could be publicly funded in their research activities. Furthermore, another piece of legislation, also still in its draft bill stage, shall be analysed from an impact on IP Management processes perspective.

At the organisational level, policies that could give force to sound IP Management systems shall also be outlined. The chapter shall also touch upon the important aspects of the National Intellectual Property Rights Policy, 2016 of the Government of India.