



**THE ROLE OF PATENT QUALITY IN ENHANCING A FIRM'S STRATEGIC
INTELLECTUAL PROPERTY MANAGEMENT SYSTEM**

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Abstract: Learning is incomparable. Playing the learning diversion is a twofold edged sword and requires multi dimensional aptitude to draw in foresight with key plan. Customarily, vital choices in the licensed innovation (IP) setting have essentially been uni-dimensional towards expanding fiscal estimation of the IP portfolios made. Research and writing has focussed on valuation of IP as an intermediary for IP quality. In any case, there is an obvious contrast between IP quality and its valuation. The current procurement of Nortel Networks' IP (principally patent) portfolio by a consortium of firms for US\$ 1.5 billion is a live case to have a superior comprehension of how IP is both assessed and esteemed. A move in the approach towards specialized quality serves to first lessen the encompassing commotion of market valuation and relate specifically deeply competency of an innovation firm, which is creating advances. Numerous a period, valuation supersedes legitimacy, prompting mindboggling settlements later into the day. In the valuation course to quality, firms (both licensor and licensee) reliably confront cases that mirror the problem of legitimacy and valuation of the IP produced. In this work, the creators reason the need for firms to accentuate on the specialized nature of their IP (licenses). High specialized nature of its licenses furnishes a firm with various advantages - establishment for the firm to use over longer time, expand on center capabilities to accomplish its key expectation and have lucidity of its commitment by being lawfully substantial and in fact important to be authorized.

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Introduction: A portion of the trendsetting

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advances have been verging on patentable topic and have needed to confront a constant test from the general public and contenders through milestone cases. Cases incorporate the main ever business technique patent gave to State Street Bank, the a single tick e-checkout patent to Amazon which actually put Barnes and Nobles out of activity and the hereditarily adjusted

oncomouse. The current relook at programming and business strategy licenses in USA (which by chance has been the innovation and administrations envelope pusher) emphasizes the need an ebb and flow talk on drivers of business – 'substantial' licenses on mechanical advancements and 'considered to be profitable' licenses. The accentuation on 'regarded to be significant' patent incorporates cases from the not so past like the close shutdown of Research In Motion (RIM's) blackberry benefit because of a progression of suit by non honing element (NPE). Edge paid about US\$ 612 million keeping in mind the end goal to have an out-of-court settlement with the NTP on the contested licenses which were later rethought and observed to be ineligible.¹ Other cases incorporate the present instance of Google v Oracle on the previous' Android stage (as of June 2012, Oracle lost) and Apple v Rest in the advanced mobile phone fragment, setting the new benchmark in the media communications patent war.

The Current Challenge: These are changing circumstances – complex advances and ventures like broadcast communications, semiconductors, which were not subject to IP prior are the present driving clients, while the customary discrete innovation holders have been pushed to the sidelines. The conventional way to deal with IP by firms has been to grow the part of intangibles by utilizing them through a more extensive range of monetary choices – IP barter, IP based trade frameworks, patent trolls, IP sovereignty based plans of action, and so forth. These methodologies are money related model developments intended to open the fiscal estimation of the immaterial made, possessed and secured. Be that as it may, as the main officer (CEO, CTO, CIO, CIPO, and so on.), particularly in an innovation driven firm, it is important to comprehend the cost ramifications of such an approach. The patent flag to IP valuation commotion proportion is extremely insignificant, recommending the requirement for proficient channels that recognize the genuine

estimation of an IP.

Rising new IP driven plans of action like NPEs, generally known as patent trolls, unadulterated ideation/outline focussed firms (fabless semiconductors) have repeated the issue of adjusting quality with valuation continuously alongside the dire need of remedial direction. Subsequently, one needs to distinguish strategies that assistance focus on the essential rule of IP administration, specifically, to determine the specialized nature of an IP made autonomous of its evaluated financial esteem. A noteworthy purpose of takeoff worried in this work is to convey out to the fore, various vital parts of an IP that isn't caught in a conventional valuation approach. Regardless of the idea of the element (firm/look into lab/scholastic), what is being vital as far as IP? Is it a restricted skyline focal point of securing monetary benefits or a bigger yearning to lead through vital IP administration frameworks?

Licensed innovation Management System: Licensed innovation administration framework (IPMS) is characterized as an arrangement and administrative instrument that aides in gathering and guaranteeing the estimation of a rich IP portfolio.² The obligations of IPMS incorporate IP age, IP portfolio administration, its valuation in light of aggressive evaluation and key choice making.³ Understanding the different signs of IP is integral to the characterized elements of IPMS in a firm. The accomplishment of IPMS is judged as far as it being the driver of cooperative energy between a company's innovation and item guides, and its related part in upgrading expectations identified with new item/innovation improvement and organizations. This incorporates customary permitting, institutionalization push and guarded protecting as earlier workmanship. With such vital objectives, IPMS is viewed as the control instrument in a dynamic capacity structure that use the accessible assets and abilities of a firm. Here, the control system alludes to adjusting the various key parts that is motioned by IP. The yield quality and over the long haul, the

company's result regarding capacity is the closest autonomous measure. Taking relationship of an unpredictable framework, IP quality is the beat of a thick focal advancement framework that IPMS makes in a firm.

The part of IPMS is portrayed in Fig. 1. Diving head on, the vital capacity of a CIPO (Chief IP Officer) is to position IPMS around two key vital moves – one, to make new learning and two, to create new business.⁴ Practical relevance of IPMS based strategies would include the firm's decision to do R&D, identify the relevant set of technologies and complements (IPs) that are required for a particular product or technology platform. The core aspect of IPMS lies in identifying 'essential' and 'applicable' IPs based on technology and IP landscape analysis.

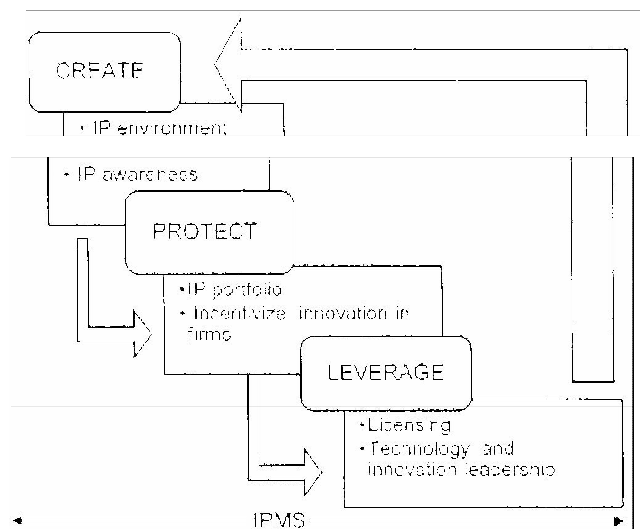


Fig. 1 – Three stage of IPMS (adapted from ref. 1)

Why IP Valuation isn't IP Quality: The condition right now took after is IP valuation = IP quality. IP valuation exclusively centers around the income created through its authorizing or deal. In any case, one needs to comprehend that the present valuation of IP is chiefly determined by authorizing systems. Permitting is a vital collaboration in which firms abuse (licensor) and investigate (licensee) their stakes. Permitting income goes about as an intermediary for patent valuation and is

fundamentally affected in view of the authorizing procedures took after and data asymmetry between the licensor and licensee. Current valuation and authorizing writing talks about procedures like elite, non-selective or local permitting, one time result, unit deals based sovereignty, income sharing, R&D costs cum authorizing, and turning point based valuation.

There additionally exists variety in the authorizing strategies for state funded colleges and other IP holders. Each such system prompts an alternate valuation both inside and crosswise over businesses and segments. Combined with this, the key connection between firms likewise decides the permitting style. Leaving aside the numerical presumptions and models for valuation, these huge number of authorizing systems make fluctuation which are hard to control. It raises concerns when utilized as a solitary uniform measure of a result. What is required is an approach that relates intimately with the various vital utilization of a patent.⁵

Restricting the IP to licenses for discourse, the patent framework is composed such that it benefits all parts of the sanity supporting it – access to new advancements, making of foundation, raising development capacity of the general public, going about as a motivating force framework et cetera. These various vital utilizations of a patent make it exceptionally hard to have a solitary target measure of its effect estimated through valuation. Subsequently, estimating the nature of such various commitments should mirror the more prominent regular great of development that happens.

Market valuation or permitting income created from licenses lines up with the monetary hypothesis of the patent framework and is one among the different other theories⁶ show and utilized by trend-setters and development approach producers. Valuation is one such measure of the effect of licenses on society and because of the different parts of licenses previously mentioned, it doesn't give a total

point of view on the nature of the commitment. Patent valuation scores demonstrate the normal returns at the season of authorizing and make it a consistent for the future while patent quality scores are dynamic and give the ebb and flow status.

The creators have particularly centered around the specialized nature of a patent which is a substantial yield measure for firms putting resources into R&D. An attention on specialized quality will naturally prompt better valuation and the result of enhanced and forefront mechanical capacities.

The Emerging Role of IP Quality: The IP quality is identified with the vital plan of a firm, giving a strategic flavor to the part of IP quality in IPMS – the accentuation being on specialized quality instead of here and now supernatural money related returns. For dialog reason, as far as possible it to patent quality (PQ) contemplating the far reaching definition on PQ provided.^{4,7} In this work, PQ is considered as a measure of the compelling utilization of logical and mechanical progressions towards making effective developments that drive the financial headway of all patent framework partners by expressly fitting in with acknowledged specialized attributes and statutory prerequisites of an allowed patent.

The vital part of a patent isn't restricted to its defensive proprietorship. Because of a patent's numerous flagging, a multi dimensional part exists for a patent and subsequently PQ ought to be estimated through a planned multi demonstrate synergistic approach.⁴ This requires distinguishing proof of however many non repetitive measures that cover these vital parts as could be allowed. A firm which has chosen to play the patent amusement needs to wind up aware of the way that innovation is its support. By underlining on specialized quality got from the fundamental patent attributes, a firm can diminish showcase vulnerabilities in the utilization of its licenses – from creation, to application lastly licensing⁸ and its reliance on patent allow quality to legitimize and use its

protecting strategies.⁹ The firm along these lines ends up proactive in distinguishing, overseeing and permitting licenses, of and for its portfolio.

The CIPO's part would be currently to recognize reasonable weights for fitting measures according to the key setting and utilize the PQ model to figure the last PQ score. The last PQ score that coordinates the different measures of a patent causes a firm to hindsight on the nature of its developments and distinguish important quality licenses according to the innovation/item attributes required for permitting or securing. Regardless of the setting to either make or gain (permit) licenses, knowing the PQ score gives a reference point to outlining the fitting patent procedure. Such PQ models ought to be dynamic with a specific end goal to be extendable to related and problematic mechanical advancements that happen and furthermore cover the arrangement of licenses made. This causes the firm to distinguish nature of patent joint effort/obtaining that it expects to finish.

Such investigation combined with nature of the innovation being made, empowers the CIPO to plan a handy and practical patent technique prompting predictable formation of great licenses. As a CIPO, it isn't sufficient to have a gathering of measures that decides the nature of the company's yield (licenses for this situation). It is likewise important to focus on their key significance and suggestions so made. Each PQ measure is dictated by its two deliberately pertinent parts; (i) the nature of's association with outer elements for each measure of PQ and (ii) the season of relevance for each such measure. The association with outside substances can be at the system level, at the level of a solitary outer firm or totally missing. The season of utilization important for each measure has three stages, to be specific, at the season of use, amid patent indictment and post concede. In Table 1, the kinds of key significance talked about above are related with the three patentability criteria. The company's relationship and time of relevance are basic to each of the three criteria. The season of

materialness encourages the firm to choose the time moment at which the important measures are to be accentuated. This encourages the firm to use its assets suitably by having further spotlight on particular measures.

Vital Implications of PQ: It can be seen that there are measures which rely upon a blend of interfaces (at both, firms' relationship and time of importance, for example, licenses, peer surveys and materialness. Such measures are distinguished as the connection interfacing the firm with its outside condition. These measures are deliberately more imperative to be accentuated and overseen as they produce synergetic impacts (advantage or loss).¹⁰ These measures and their particular weights ought to be of key concentration for the firm and stressed by the CIPO. The part of CIPO would then be to adjust this weight division to the association's vital purpose and abilities. The vital part of PQ in a firm can be organized at two levels – full scale, distinguishing how the PQ display helps in choosing significant IP for a company's extension and smaller scale, recognizing the part of each measure that is utilized to decide the last PQ.

Macro – Multilevel Role of PQ: The PQ score has a role from the perspective of – the independent patent, the patent portfolio created and the innovation platform. A firm can plug its actual data into the PQ model and determine both the quality of its individual patent and portfolio. A firm with good number of patents will then be able to identify the right combination of PQ measures leading to better quality patents. This helps the CIPO give

relevant directions and policy recommendations both to its R&D team and technology strategy team with regard to the firm's position and stake in the technical environment. As an internal intelligence application, this helps to identify competitor firms that 'game' their PQ score by simply raising the count of certain measures. Firms present in complex technologies have the choice to either individually promote their patents or become part of a patent pool.

The cost of targeting high quality patents due to the various related uncertainties of patenting is countered with a portfolio approach (quantity route) by firms, especially in complex technology domains.¹¹ The final score and rank of the patents identifies the technology position of a firm in the industry. Platform is an abstraction layer in the design flow that facilitates a number of possible refinements into a subsequent abstraction layer in the design flow.¹² Moving forward from technology platform and product platforms, the authors propose a new platform termed as innovation platform, based on the patent portfolio held by a firm. This innovation platform is a superset and a combination of both fundamental technology patents and product platform patents. The PQ measure of the patent portfolio acts as a robust indicator of the innovation platform that can evolve around the patent generated.

Micro level – PQ Measures and Their Behaviour: At the micro level, the CIPO now has the problem of choosing amongst a multitude of measures that determines the PQ. Focussing only on measures having the highest weights does not explore the dynamics of the other measures and defeats the strategic multiple roles that a patent arms the CIPO with. In Table 2, the strategic relevance parameters described earlier are correlated to two PQ measures. The number of licences generated as the measure is taken as an illustrative example. W_1 is the weight for the licence measure that determines the utility of a

Table 1 — Strategic nature of relevance of PQ

PQ measures	Strategic relevance	
	Firm's relationship	Time of applicability
(1) Utility	External dependent /	Application stage /
(2) Non – obviousness	Network determined / Internally managed	During patent process/ Post grant
(3) Novelty		

Table 2 — Example of measure map

Measure	Strategic relevance	
	Firm's relationship	Time of applicability
License (W_1)	Network determined (when pooling), internally managed	Post grant
Applicability (W_{AP})	External dependent, internally managed	Application and post grant

particular patent. The licences generated depend on activities of the self firm and also on the external entity that reciprocates. In cases of pooling, the network effect (participants in the pool and the role of the patent pool manager) replaces the external entity. On the time of applicability scale, the licence measure comes into picture, post grant of the patent.

Presently, in the event of typical self portfolio examination, the CIPO can utilize the default weights. On account of permitting in, the appropriateness is more determined by prompt utilize while amid authorizing out, the firm needs to center around its centrality. In light of the idea of the exchange, the CIPO can give a reasonable proportion of the single weight for the relevance measure. This rationale can be stretched out to different measures having numerous pertinent relationships for their weights to be suitably proportioned. Such adaptability gives a clearer picture for the element amid extended permitting and transactions for securing. The CIPO's part is to decide the scale for vitality and materialness measures according to the permitting stage and utilize this alongside the weights. Recorded information, both of the firm and the pattern in the business should be examined for the substance to turn out with the scale.

Another case of a solitary measure is earlier craftsmanship. The patent framework needs to help both essential and substantial changes of quick utility advancements (inside the general patentability prerequisites). By expanding the earlier craftsmanship being referred to, the patent opens up the restriction floodgate entryways. It

likewise helps in lessening the further resistances by demonstrating the earlier craftsmanship from the earlier. This is the exchange off that an IP procedure ought to look at alongside the idea of the advancement being finishe.

Conclusion: The acknowledgment of any system is reliant on its generalizability – appropriate over numerous businesses or has the ability to be tuned according to industry qualities. The creators propose an approach that causes the CIPO to position PQ, which is non specific (industry impartial), thorough and catches by plan, the ideal models in the advancement forms. Valuation is an absolutely monetary point of view which skews the firm to begin focussing on actually significant licenses with legitimacy being set in danger. The way to deal with PQ has been clarified from the vital administration of innovation viewpoint and depends on the preface of having a key legitimate consistence. The visually impaired accentuation on the monetary method of reasoning for association of advancement and R&D has seen cases of over-rearranged and skewed methodologies amongst esteem and legitimacy. By developing models to gauge and underscore specialized quality, this article is an endeavor to structure and pass on the lawful ramifications in a useful dialect. This is a worldview swing to unobtrusively catch and adjust the collaboration between legitimate points of view and innovative development in an organization that empowers the firm (the daring individual) to profit yet on a long haul vital viewpoint. This cooperative energy made by PQ measure goes about as the consistent tie among the three elements of IPMS – make, secure and use.

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