

Factors in Pricing License

A checklist of 100 important considerations in setting value of technology license

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There is cost, risk of (i.e. hope for) profit and risk of loss involved,

- in licensing early or concept-only technology vs. matured and proven technology development;
- in scale-up from prototype or pilot plant to production model or commercial plant;
- in commercial manufacture and marketing;
- in patent or know-how litigation and commitments to enforce rights;
- in license nonexclusives and in license exclusives;
- in licensee competition with the licensor;
- in third-party competition and new leap-frogging developments;
- in guarantees of costs, quality or production rates of the licensed operation;
- in favored-nations clauses;
- in the cost and quality of the technology transfer itself;
- i.e. in everything in the license.

The total price for a technology may be structured in the forms of commitments and guarantees plus total or partial payment in equity, debt, front money, postponed sums certain, minimum royalties, running royalties, etc. But in the ultimate sense the total price is primarily a balance in the hope/risk of profit and loss by the two license parties.

Each of the following-listed considerations affecting the setting of the price on a technology, should be reviewed by both sides in the context of hope/risk, in arriving at that balance.

If reviewed before and during a negotiation, these considerations will help a party put his own value on the technology and will forewarn him of the thinking on the other side — thinking for which he should be forearmed when entering the negotiation.

Because many of the considerations are a mixture of intrinsic quality, strength of protection, market niche, financial and other factors, grouping them under headings can be misleading and begot redundancy. We feel, however, the headings and groupings help the reader

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a bit in spite of such inherent shortcomings.

Intrinsic Quality

1. The stage of the technology's technical and market development. Barely conceived? Reduced to practice? Commercially proven?

2. The intrinsic quality of the technology as a marketable quality, reliable technology.

3. The *perceived* utility by the buyer or user of the technology or its product.

4. The value to the licensee or its country of educating the licensee employees in the technology. Often developing nations will subsidize a technology-transfer or a licensee-research clause in a license in order to get their citizens technically trained and gainfully employed in a technology.

5. Perceived value of continuing access to technical help and ongoing research and development by the licensor and/or other licensees, including reputation of the seller for innovation and technical development.

6. The possibility of profiting from the good reputation of the licensor.

7. The need for the licensor's technology in the licensee's operations.

8. Pioneering invention or mere slight improvement?

9. Ongoing technical services by the licensor.

10. Whether the technology arose as a byproduct of other R&D. (This does not truly change the intrinsic value of the licensable technology, but it seems to have a psychological influence which, when properly advocated, does sometimes affect what a licensor will take.)

11. The type of license (patent, know-how, trademark, copyright, mix, etc.).

Protections and Threats of Protection

1. The scope and reliability of the protections of the technology, be it patent, trade secret, trademark, copyright or chip protection, etc.

2. Whether there is a favored-nations clause.

3. Precedent, the value in money and other considerations being paid by, or offered as acceptable from, other licensees, particularly if they are likely to be partly competitive.

4. Reputation of the seller for defending its invention and for technology protection.

5. Contractual commitment of either party to protect the technology, or risk of nonprotection.

6. Can the offered patents or secrets be designed around (and at what cost in time, money, legal risks or technical risks)?

7. Enforceability of capacity, volume, location, geo-

graphic restriction or field-of-use clauses or other restrictions against competition.

8. Is this license a compromise of a suit for patent infringement or misappropriation of trade secrets, etc.?

Market Considerations

- 1. Size of the total relevant market and licensee's likely share.
- 2. Distinctiveness of the market niche of the licensed subject matter; differentiation of licensed product (e.g. if 10 companies are making a soft, stretchable quality of polyethylene as commonly used for garment bags, would a licensee pay more for a license for a nonstretchable film strong enough for use as shopping and grocery bags?)
- 3. Demand for the product of the technology in the licensee's potential market at various potentially available prices and product quality and styles (e.g. the same invention may have a bigger market in a Cadillac than in a Volkswagen or vice versa).
- 4. Geographical location of licensee's manufacture or sales base.
- 5. The importance of a second source of supply in the market. Many is the market where two quality competitors will sell nearly three times as much as one alone.
- 6. Changing market trends in competition.
- 7. Dynamism of the market.
- 8. Trade cycles.
- 9. Political environment and stability in licensee's country.
- 10. General state of the economy.
- 11. The possible extent to which the demand for the licensed product may be depressed by unemployment, union attitudes, etc. in the primary marketing area of the licensee.

Competitive Considerations

- 1. The nature and extent of the third-party competition with the licensee.
- 2. The nature and extent of licensee competition with the licensor and/or reaching markets not served by the licensor.
 - a. Will the licensee serve markets the licensor cannot effectively serve or will the licensee serve competitively the licensor's own markets, etc.?
 - b. Whether and to what extent gray-market goods of the licensee will compete with the licensor's products.
- 3. The scope of the market niche which is protected, and the cross-elasticity of the market within and without the protected niche (i.e. the degree of exclusivity of the license of the inherent market niche).

Values Brought to the Table By the Licensee

- 1. Capital, marketing talent, and other values brought to the table by the licensee.
- 2. Grant-backs of research and development by the licensee.
- 3. The possibility of acquiring an equity interest in the licensee.
- 4. Manufacturing and marketing capability of the technology recipient: Whether the licensee has greater talent and capacity effectively to make or to market the invention in the subject market, or to use the

technology, than the licensor.

5. The degree of economic and industrial development, the labor and capital availability and cost, etc., in the licensee's country.

Financial Considerations

- 1. Manufacturer's margin. For example, a unique agricultural chemical, medical device or pharmaceutical may often be priced in response to value to the customer, independently of cost of manufacture and sale or competitive prices. Perhaps the farmer can be given a three dollars return in increased crop yield for one dollar of cost to buy the product, and the manufacturer can still sell such a chemical, if protected, at eight or eighteen times its manufacturing plus sales costs. A much higher royalty (33% of retail price in one of my cases) is justified in such a case than when the manufacturer's margin is forced to be one or two percent.*
- 2. Cost of the license negotiation and the technology transfer itself, and profit on that cost. Licenses for small markets often cost more to negotiate than the license is worth.
- 3. Potential for profits at royalties at X%, Y%, and Z%, each to the licensor and the licensee.
- 4. Availability and cost of capital and labor.
- 5. Tariffs.
- 6. Taxes and related considerations — capital gains vs. ordinary income. But "capital gains" as such seems destined to disappear under U.S. Tax Reform Act of 1986.
- 7. The amount of the licensor's expected cost savings, risk savings, and other burden savings, which follow from licensing a given market in lieu of developing it himself.
- 8. A comparison of the projected license net income against the potential for profit by the licensor's service of the same market.
- 9. Can the offered patents be designed around? Or the secrets be independently duplicated?
- 10. The burdens on the licensee inherent in its developing the same or competitive technology by its own effort:
 - Cost of licensee R&D.
 - Time for licensee R&D.
 - Quality of licensee R&D result.
 - Unresolved infringement, environmental and other legal risks involved in likely licensee R&D result.
 - Technological risks in likely licensee R&D result.
- 11. What did the technology cost the licensor to develop? This should be disregarded except insofar as it helps evaluate the cost of the licensee's competitive development of the same technology.
- 12. Cost and risks of enforcing patents or trade-secret rights.
- 13. Cost of warranty service.
- 14. Cost savings in avoiding litigation to enforce a patent.
- 15. Costs of obtaining and maintaining local or

*As with many of the considerations, manufacturer's margin is a mix of the considerations of intrinsic quality, strength of legal protection, uniqueness of market niche, competitive, financial and other considerations, so it could be classified many places.

foreign patent and trademark protection. (Really, not relevant.)

- 16. Cost of training the licensee's employees; risk that the planned training may prove inadequate.
- 17. The seller's cost of continually upgrading the project.
- 18. The nature and type of obligations to be assumed by the licensee under the contract; e.g. books to be audited by the competing licensor, licensor quality control burdens, royalties to be made on sales before goods paid for, force majeure clause.
- 19. Policing costs: accounting audits, quality control tests/inspections.
- 20. The *probability* of the license being profitable for the licensee.
- 21. The *amount* of expected profit or saving incurred by the licensee, including any likely monopoly profit.
- 22. Different costs in the different countries involved,
 - of capital (either equity or debt capital),
 - of labor,
 - of raw materials.
- 23. Traditional royalty rates in the industry — a factor relevant more to negotiating tactics and psychology than to what is fair or economically reasonable for the subject technology. Be imaginative in developing reasons for departing from tradition. Precedent-priced technology is often wrongly-priced technology.
- 24. The profit plan; the traditional profit margins in the industry. But again, be imaginative in finding reasons for departure from tradition.
- 25. Estimated cost of adapting the technology to planned applications like 220-volt power in lieu of 110, etc.
- 26. The structure and time spread of payments of equity, sums certain, royalty minimums, running royalties, payments to be of large sum certain in spite of market failure by licensee, etc.
- 27. Accounting simplicity.
- 28. The potential for and availability of barter and local manufacture arrangements to cover currency control problems and the like.
- 29. Follow-on related sales, the profits thereon.
- 30. The anticipated Return On Investment ("ROI") for each licensor and licensee.
- 31. The buyer's right to duplicate the seller's technology in subsequent projects.
- 32. Inflation, in some countries running at 400% annually.
- 33. Varying international exchange rates.
- 34. The prices (equity, sums certain, royalties) being asked by sellers of competitive or similar technology. Recent industry licensing rates and practices for similar products and processes.
- 35. Anticipated sales volume of licensed products.
- 36. Contract administration costs, comfort, and convenience.
- 37. Division of projected profits, as for example 25% to 50%, which is common for the licensor, and perhaps 50% to 75%, which is common for the licensee who usually has much more at risk.

Particular Risk Considerations

- 1. Exposure to product liability suits.

- 2. The licensor's risks and costs of litigation against the licensee, in lieu of license, e.g. risk of loss of royalties from existing licensees if the patent is held invalid.
- 3. The risk of cost and other burdens upon either party who assumes to police patents and sue infringers.
- 4. Risk of having to perform uncompensated technical study or training services to verify performance guarantees and specifications.
- 5. The risk of loss of prior license royalties if the patent is litigated and held invalid. The potential for this risk biases toward an early litigation — which in turn puts at risk all the royalties that might have been collected, usually at lower rates, had the patent never been risked in court.
- 6. Licensee's credit position.
- 7. Licensee's willingness to be audited — perchance by a competitor.
- 8. The risk of a diminished quality of future R&D if the licensor does not manufacture.
- 9. The reliability of clauses protective against product liability law suits, particularly in connection with trademark licenses.
- 10. Exposure to charges of infringement of rights of others.
- 11. Exposure to liability for infringement of third-party rights.
- 12. The risks of the licensee's developing the same or competitive technology by its own effort.
- 13. Uncertainties in cost, time, legal quality and technological quality of licensee R&D result, if independent development is selected in lieu of license.
- 14. Risk to the licensor and value to the licensee of the licensor's guarantee of performance in
 - time of plant erection,
 - quality of product,
 - production capacity,
 - cost of product,
 - enforcement of patent and know-how protections and exclusivities,
 - indemnity against infringing 3rd party patents,
 - etc.
- 15. Apart from the guarantee (which is often an incomplete remedy for failure of performance), the licensee's perception of the true reliability of the
 - time of performance,
 - quality of product,
 - production capacity,
 - cost of product,
 - enforcement of protections and exclusivities,
 - indemnity against infringements of third-party rights,
 - etc.
- 16. The potential licensee's
 - cost of defending an infringement suit,
 - risk of damages,
 - risk that the license price if any will go sharply up after a litigation,
 - risk of injunction with no license available at all.
- 17. The term of licensee lock-in (as by a plant design frozen in steel and concrete).
- 18. The risks of technological obsolescence.

19. Can the offered patents or secrets be designed around (and as aforesaid, at what cost in time, money, legal risks or technical risks)?

20. Risk of erroneous estimates of licensee employee training.

Legal Considerations

1. Force majeure clauses.

2. Legal enforceability of restraints on competition.

3. Whether the patent value has been or will be enhanced by a judicial reexamination and decree. Patentees frequently should decline to license or price a license very high before the first litigation, hoping to precipitate an early litigation with respect to an infringer suffering poor litigation equities, thereby to enhance the subsequent license value of the patent(s).

4. Duration of the license, of payments of sums certain, of the royalty payments, of the obligation of confidence — all of which commonly should be different terms.

5. Favored-nations clauses.

6. The risk of, or opportunity for, suit by the licensee to invalidate patents at times and forums of his choice — he may not stay hitched.

Government Regulatory Considerations

1. Licensee's government's restrictions and law on royalty rates, royalty terms, etc.

2. Legal restrictions on currency movement.

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