



Custom Ratings for IP valuation and M&A due diligence

Introduction

Ratings provide guidance for the evaluation and comparison of assets, in terms of parameters that are relevant. Various ratings have been devised and applied to patents for this very purpose - more so given their intangible nature. Ratings for patents and portfolios find use in valuation scenarios like IP licensing and sale, mergers & acquisitions, and raising IP-backed financing.

Intellectual Property (IP) portfolio management tools routinely incorporate ratings in the analytics they provide. These ratings combine a variety of relevant parameters, each weighted differently. One such popular rating relates to quantifying the value or strength of a patent or portfolio – either in absolute or relative terms. The ratings provided by different tools are typically proprietary and are offered as a black box.

The parameters that go into a rating along with their relative importance, are context sensitive. There has long been a need in IP analysis tools to provide a flexible way for users to formulate custom ratings and apply them in the IP valuation exercises.

Relecura now has a **Custom Formula Builder** enabling users to formulate their own custom ratings and use them in their analyses. The sections below provide details and examples of how this feature works.

Custom Formula Builder

The Custom Formula Builder provides the following,

- A list of patent parameters (variables) for individual patents including,
 - Single-valued variables like citation counts, claim counts, and the number of family members.
 - Multi-valued variables specified using look-up tables.
- Functions and operators to combine the above variables.

Individual rating components pertaining to specific factors (e.g. effect of the number of forward citations or the geographical spread of family members) are first specified using a combination of the above variables along with their weights. These are then combined to give the overall custom rating for each patent.

Some pre-specified components are directly available to quickly construct a custom rating. These pre-specified components may be modified as desired. Apart from these, the user may create custom components. Once created, ratings formulae can be saved and reused in future analyses. The values of the custom ratings for the portfolio patents may be exported as well.

Using Custom Ratings

To illustrate how to create custom ratings, we will now walk-through a couple of different examples. In each case, we will apply the formulated custom ratings to Amazon's portfolio.

1. *Custom Star Rating - for Patent Quality.*

This is akin to Relecura's Star Rating for patent quality - the difference being that in the formulation of the "Custom Star Rating", the user gets to choose the factors to incorporate and the relative importance (weights) given to each.

2. *Custom Rating - for Patent Validity factoring PTAB CBM risk.*

This rating aims to assess the validity of a patent considering the possible risk of a Patent Trial and Appeal Board (PTAB) Covered Business Method (CBM) proceeding. Such an assessment is relevant in patent valuation and commercialization - where a risk assessment of the patent assets under consideration is routinely done.

[Custom Star Rating - for Patent Quality](#)

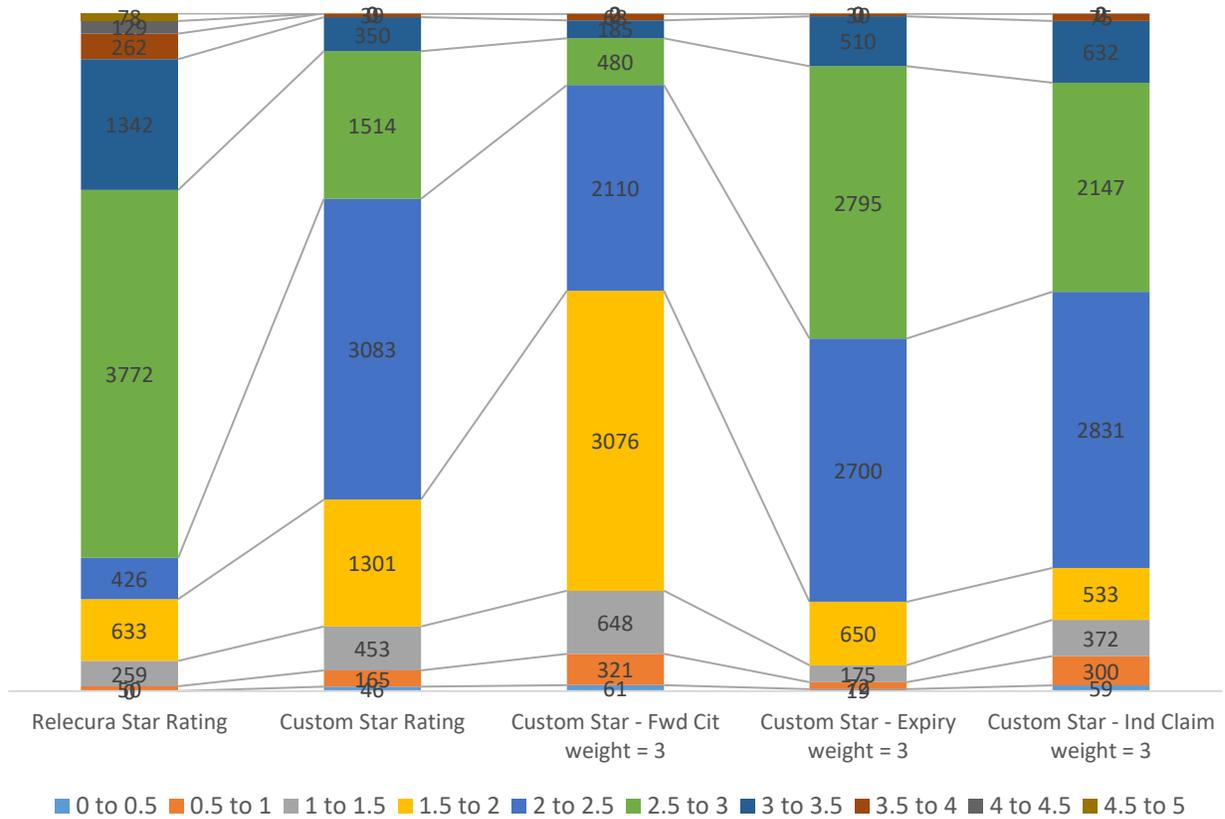
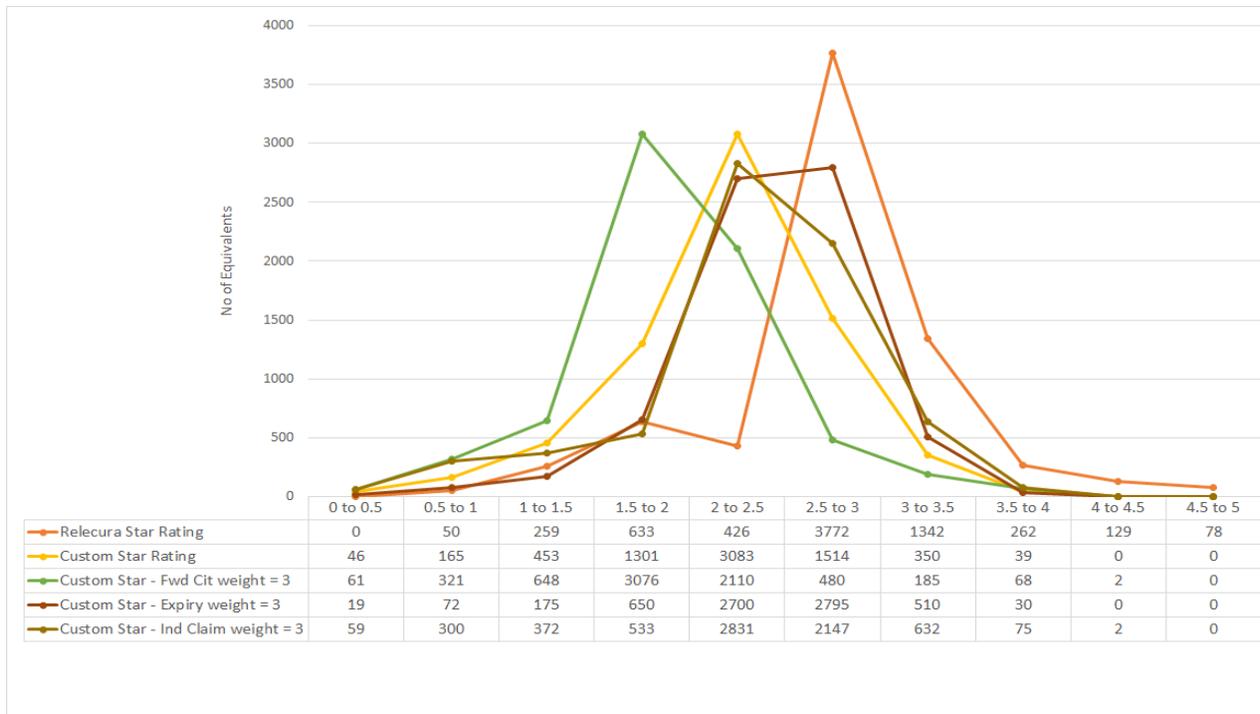
The choice of the components to combine and the specification of their relative weights is left to the user. The factors considered are listed below.

- | | |
|---------------------------------|--|
| 1. Backward citations | 7. Total number of claims |
| 2. Forward citations | 8. Length of the patent description |
| 3. Prosecution time | 9. Filed to published duration |
| 4. Patent expiry year | 10. Filing jurisdictions of the family members |
| 5. Patent family size | |
| 6. Number of independent claims | |

We applied the *Custom Rating for Patent Quality* to the Amazon portfolio. We ran four different cases. For the baseline values, we used the pre-specified components with the given default weights (weight = 1.0) for each of the components. The subsequent three cases gave additional weightage (weight = 3.0) to the (i) number of forward citations, (ii) number of years left to run in the term of the patent, and (iii) number of independent claims respectively.

The results are shown in the graphs below. They are scaled appropriately (0 to 5) and compared to the *Star Rating* currently available in Relecura. Using this custom rating, we can study the distribution of patent equivalents in each of the patent quality bands, and gauge the sensitivity of the rating to the different parameters.

Custom Ratings for IP valuation and M&A due diligence

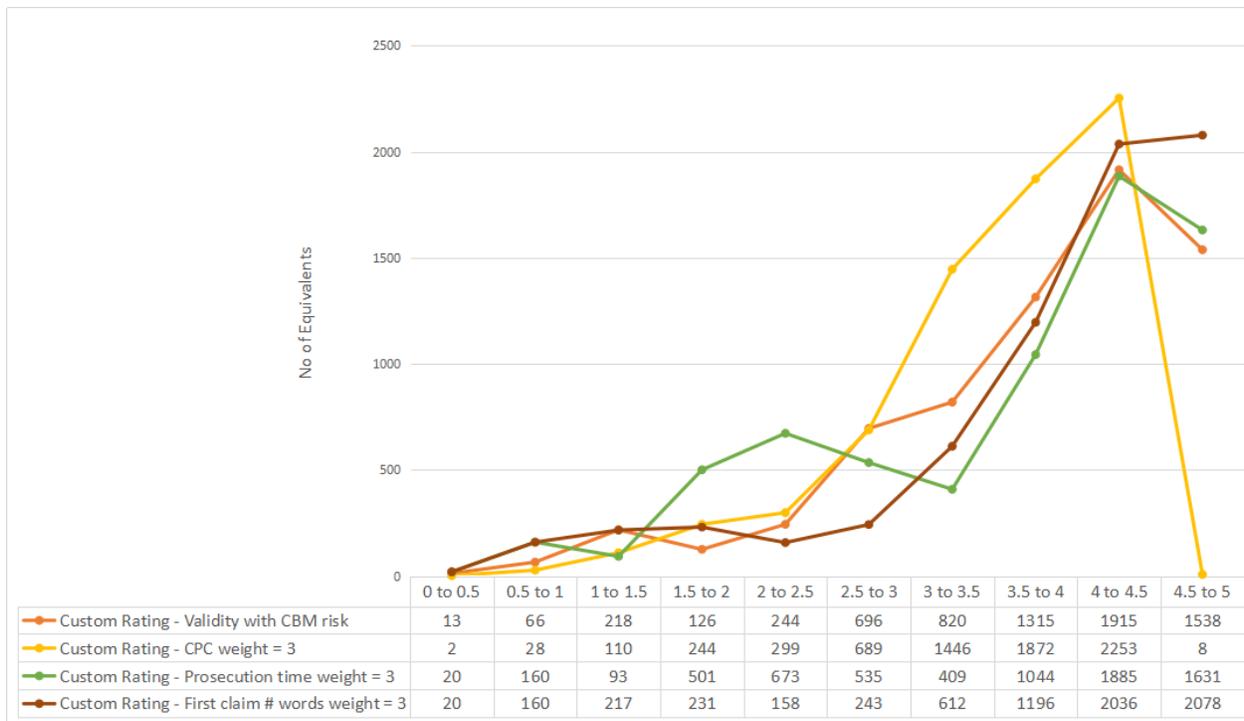


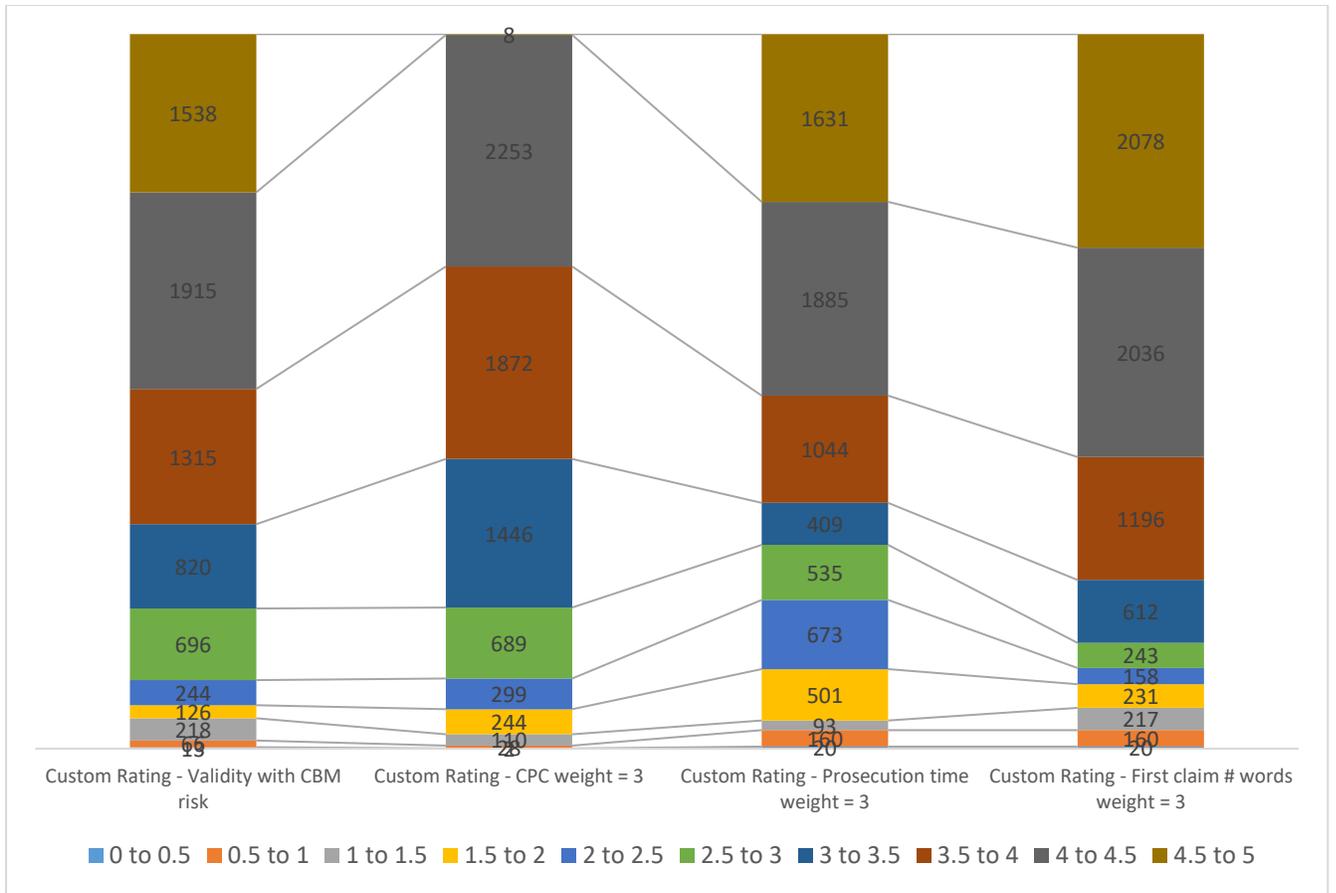
Custom Rating - for Patent Validity factoring PTAB CBM risk

A separate set of pre-specified components, appropriate to this context, were chosen to formulate this rating. These are listed below.

1. Number of unique CPC sections addressed by the patent
2. Number of jurisdictions covered by the patent family
3. Duration between filing and publication
4. Number of words in the first claim
5. Length of the shortest independent claim (in words)
6. CPC codes relevant to the CBM subject matter

We applied the above rating to the Amazon portfolio, the results of which are shown in the graphs below. We first calculated the baseline ratings with the default weights for each of the above components (weight = 1). We then calculated the ratings by increasing the weights of three selected parameters in turn (weight = 3.0). These were the (i) number of unique CPC sections covered by the patent, (ii) prosecution time, and (iii) number of words in the first claim respectively.





Using Custom Ratings in IP valuation and M&A due diligence

Let us consider a situation where a portfolio is being prepped for valuation - either for commercialization or as part of a M&A due diligence exercise. We will describe how Custom Ratings can be applied to this task.

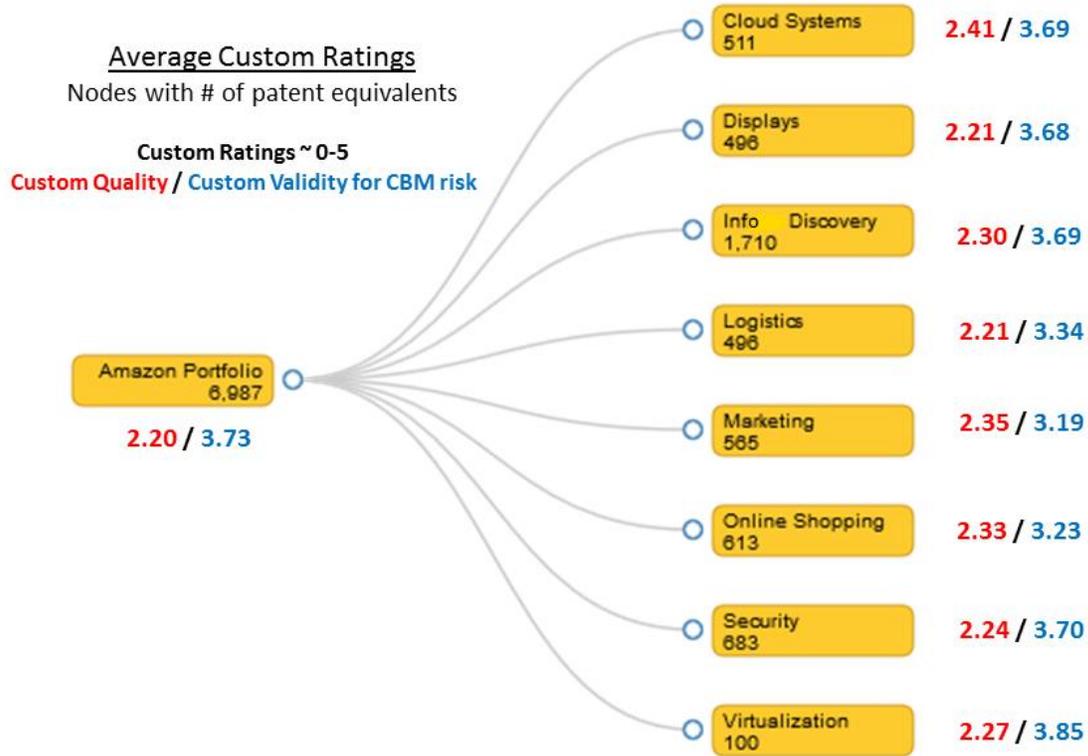
Let us pick up from the preceding examples. With the objective of determining the value of a portfolio - in either relative or absolute terms - consider the following steps.

1. Define relevant custom ratings. We have already formulated a couple of different custom ratings - one for patent quality (strength) and the other for patent validity factoring in PTAB CBM risk.
2. Pass the portfolio through a pre-defined taxonomy. The taxonomy may be based on technologies of interest or any other categorization that is appropriate.
3. Custom ratings for individual patents in each node are calculated along with the average (or any other statistical measure) for the node.

We applied the above steps to the Amazon portfolio. The results are shown in the following figure.

Some of the advantages of using the combination of [\(Taxonomy + Custom Ratings\)](#) are:

- We quickly get a measure of the value/risk of the overall portfolio and specific subsets of interest.
- We can determine the categories in which the high value patents reside.
- In an IP commercialization scenario, the categories can be easily reconstituted and combined differently in the **Taxonomy Builder**, with the goal of maximizing the value of the individual lots.



Conclusion

Relecura's new **Custom Formula Builder** enables users to define custom ratings for patents, and use them in their IP valuation exercises. The custom ratings are available across the various analysis modules of Relecura. Custom ratings can be saved and reused, as well as exported for further analysis and visualization.

The **Custom Formula Builder** is flexible and can scale to incorporate new variables, operators and advanced functions, thus integrating patent and portfolio analysis with quantitative valuation and risk assessments of patent assets.

Disclaimer

This document is provided for information purposes only and the contents hereof are subject to change without notice. This document, including the information and analysis and any opinion or recommendation, is neither legal advice nor intended for investment purposes. This document is not warranted to be error-free, nor subject to any other warranties or conditions, whether expressed orally or implied in law, including implied warranties and conditions of merchantability or fitness for a particular purpose. Relecura Inc. specifically disclaims any liability with respect to this document and no contractual obligations are formed either directly or indirectly by this document.

Relecura is an analytics platform that uses machine learning, semantic analysis, and predictive analytics to process patents and IP portfolios. Relecura offers custom enterprise solutions and platforms to corporations, law firms, IP services firms, R&D organizations and academic institutions. For more details visit www.relecura.com.



info@relecura.com



+1 925 558 2775, +1 510 675 0222



www.twitter.com/relecura



www.linkedin.com/company/relecura