

## Measuring Firms' Patent Management: Conceptualization, Validation, and Interpretation

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**Abstract :** The current knowledge-based economy extends intellectual property rights (IPRs) legal research themes into a more strategic and organizational perspectives. From the diverse types of IPRs, patents are the strongest and well-known form of legal protection that influences commercial success and market value. Indeed, from our pilot survey, we understood that firms are less likely to manage their patents and actively used it as a tool for achieving competitive advantage rather they invest resource and efforts for patent application. To this regard, the literature also confirms that insights into how firms manage their patents from a holistic, strategic perspective, and how the portfolio value of patents can be optimized are scarce. Though patent management is an important business tool and there exist few scales to measure some dimensions of patent management, at the best of our knowledge, no systematic attempt has been made to develop a valid and comprehensive measure of it. Considering this theoretical and practical point of view, the aim of this article is twofold: to develop a framework for patent management encompassing all relevant dimensions with their respective constructs and measurement items, and to validate the measurement using survey data from practitioners. **Methodology:** We used six-step methodological approach (i.e., specify the domain of construct, item generation, scale purification, internal consistency assessment, scale validation, and replication). Accordingly, we carried out a systematic review of 182 articles on patent management, from ISI Web of Science. For each article, we mapped relevant constructs, their definition, and associated features, as well as items used to measure these constructs, when provided. This theoretical analysis was complemented by interviews with experts in patent management to get feedbacks that are more practical on how patent management is carried out in firms. Afterwards, we carried out a questionnaire survey to purify our scales and statistical validation. **Findings:** The analysis allowed us to design a framework for patent management, identifying its core dimensions (i.e., generation, portfolio-management, exploitation and enforcement, intelligence) and support dimensions (i.e., strategy and organization). Moreover, we identified the relevant activities for each dimension, as well as the most suitable items to measure them. For example, the core dimension generation includes constructs as: state-of-the-art analysis, freedom-to-operate analysis, patent watching, securing freedom-to-operate, patent potential and patent-geographical-scope. **Originality and the Study Contribution:** This study represents a first step towards the development of sound scales to measure patent management with an overarching approach, thus laying the basis for developing a recognized landmark within the research area of patent management. **Practical Implications:** The new scale can be used to assess the level of sophistication of the patent management of a company and compare it with other firms in the industry to evaluate their ability to manage the different activities involved in patent management. In addition, the framework resulting from this analysis can be used as a guide that supports managers to improve patent management in firms.

**Keywords :** patent, management, scale, development, intellectual property rights (IPRs)

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