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IP management strategy in business ecosystem for startup company

-Case study of battery swapping system for e-mobility-

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The purpose of this study is to propose a process for construction of Open and Close strategy in the field of a business ecosystem in which a startup company plays core roles and to put forward concrete practical proposals on Intellectual Property (IP) management using the proposed process.

By conducting case study, I analyze relationships between competitive advantage and value of patent based on element technologies, profit models, and patents in the field of battery exchange systems for e-mobility, and to propose a preferred process for construction of the business ecosystem composed mainly by the startup company. In the case study, we investigate and compare elemental technologies, profit models, and patents that are held by BETTER PLACE INC. and RESC, LTD. respectively, and clarify competitive advantage factors of RESC INC. from differences of these companies.

The proposed process of this study provides guidelines to set up a core area of the Open and Close strategy mainly for startup companies. In the proposed process (FIG. 17), the core region is divided into "fully closed core region" and "semi closed core region", firstly. The fully closed core region comprises of "exclusive key technology" that can be monopolized by IP management, among core technologies that can be a source of value when it succeeds in monopolization. On the other hand, the semi closed core region comprises of "non-exclusive key technology" where monopoly is impossible or difficult, among the core technologies. The

former is classified from the viewpoint of management of company, whereas the latter is classified from the viewpoint of experts of IP such as patent attorneys or and lawyers. As a characteristic point of the proposed process, the non-exclusive key technologies in the semi closed core area will not be fully open to the free market but rather be provided to one or more specific partners limitedly. As a result, it is possible for a hub-type company to form a core area of the Open and Close strategy in association with the specific partners and to start a business ecosystem jointly with the partners (STEP 1). In other words, by releasing the semi-closed core area to the specific partners, it is used as “fishing chum” to introduce them into the business ecosystem. Even if a company itself cannot monopolize entire of the core area, the company monopolizes the fully closed core area by themselves and leaves the formation of monopolies to the specific partners for other semi closed core area, whereby alliances of multiple companies can monopolize the whole or most of the core area.

Next, with growth of the business ecosystem, the hub-type company can consider to incorporate the non-exclusive key technology into their own the closed core area (STEP 2). In this way, by gradually expanding the fully closed core area, it will lead to the company's profit expansion. The hub-type company already has an alliance with the specific partners that manage the semi closed core area. Therefore, it is easier to form an agreement as compared with the case where business succession etc. is carried out from other unrelated companies.