

A Study on the supporting process of global technology commercialization of SMEs

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1. Introduction

Recently, as industry and commercialization environment including FTA are globalizing, domestic small and medium-sized enterprises in Korea are trying to find technical commercialization opportunities globally. In addition, in accordance with the domestic market's intensifying competition, domestic SMEs' sales and business profits are lower than those of exporting SMEs. In response, SMEs are determining the global markets to be a new breakthrough for expansion to new market and field. Despite these opportunities, referring to the performance of domestic venture companies' overseas expansion for 5 years until 2011, it has decrease from 39.3% of the overall performance in 2007 to 37% in 2011. This outcome of globalization is the reflection of the difficulties that SMEs are experiencing, such as lack of information about overseas markets and of international marketing capabilities. The supporting program for global technology commercialization has developed from supporting the international fairs and funding to foreign market connection to finding potential buyer or partner and putting trust in overseas technology commercialization institutions. For the expansion of global performances, it is necessary to research a new supporting model through the global technology commercialization intelligence.

2. Framework for supporting global technology commercialization

In order to maximize the performance of the global technology commercialization, it is a priority to discover candidates with global potential companies. Therefore, this process organizes the pool for businesses with high global potentials first. Then, it diagnoses global potential for each candidate. Using global technology commercialization index, the process screens the companies with high potentials. Next, it finds prospective buyers and partners using global commercialization opportunity analysis, and supports global business matching using roundtable.



Figure 1. Framework for global technology commercialization support

For the primary screening, it uses enterprise ability, technical ability, and international marketability index as its categories. Enterprise ability includes CEO competencies, skill development history/capability, and global commercialization capability. Technical index includes technical competitiveness (differentiation and superiority), technical extensibility, technology completion, and stability of legal rights. International marketability index includes the size and growth of global market, validity of global business plan, and possibility of global technology commercialization success.

For the secondary screening, Outline, Tech. Description, Market Interest, Competition, Development Status, Risks and Barriers, Team Status of business candidates are researched. Utilizing the global technology commercialization KIT, the process analyzes technical overview, key features and benefits, advantages compared to competitors, field of application, requirements, visual components, and contact information.

The companies selected for the analysis of global technology commercialization opportunities, which Executive Summary, Key Findings, Recommendations / Next Steps, Tech. Description, Potential Benefits, Development Status, IP Status, Market Analysis, Interview and provides analyzes.

In STEP 2's diagnosis of global capability, it finds implication by diagnosing global innovation capability based on due diligence interviews of 30 global technology commercialization company candidates. It also provides global innovation capability diagnostic reports along with education training about the understanding of information and application plan.

In STEP 4's global technology commercialization opportunity analysis database discovers potential buyers of domestic SMEs. It also analyzes global market needs and provides major signification to technology level analysis. It

allows getting primary source of latent global demand, marketing, sales strategy establishment, and opportunity for joint research.

3. Types of global support outcomes

In case of a SME with global diagnosis result, it will be analyzed the type of the company's global expansion with supplemented strengths and weaknesses and modified internal enterprise portfolio for overseas expansion. In the phase of global market entry, it is distinguished as new foreign market entry, domestic-based and new foreign market entry, or domestic-based and foreign market expansion. In forms of value creation, it can be distinguished as alternative model for existing market with cost and technical superiority, alternative model for existing market with cost and technical superiority innovatively, or new creation model requiring internal infrastructure linkage elements.

For final selection of the six companies, more than 42 prospective buyers were found. Through global business matching with these prospective buyers, numerous global performances such as technology and product demonstrations, product export agreements, joint research agreements, sample purchase promotion, OEM promotion agreement, NDA contract, LOI contract, NSF certification process support, Supplier Agreement as certification acquiring, and joint participation for future project were drawn.

4. Conclusion

On the basis of experiences, assets, and management know-hows earned from the domestic market, the domestic SMEs are to challenge to globalization process. However, as majority of the SMEs lack internal capability to manage risks and commitments that come from overseas activities, they face numerous difficulties. In order to earn know-hows and get over these difficulties, they need supports from the government and public institutions. Particularly, supported by information and intelligence instead of costs or labor, SMEs can not only shorten the time-to-market, but also diagnose the global capacity to be aware of the current position. Applying the substantive supporting framework is necessary to get prepared for the global expansion effectively.

5. References

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