

Design of Platform Business Model in Public Sector: Role & Responsibility for Governance

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Abstract

Platform business models as AppStore, SNS (social network service) and online marketplace are creating new markets and providing opportunities to dominate. And they are considered as a blueprint for future business. Trying to create or enter a new business area, the more interested companies and consumers can be induced to minimize the risk. Platform could maximize the profitability of private companies, as well as provide various improved citizen services with minimum cost in public sector. Platform's ability to link multiple public agencies are capable of keystone. Therefore, designing the platform service model in public sector, setting an R&R (role and responsibility) of each related agency for platform governance to be considered in the perspective of national innovation system (NIS, National Innovation System).

Keywords: *Platform Business Model, Platform Governance, National Innovation System, Public Sector*

1. Introduction

A platform strategy that is to activate the transactions between user and the company has been raised as a successful approach¹ and its importance being recognized in the public sector also. AppStore, SNS (social network service) and new markets such as the formation of a successful enterprise has its own unique platform.² A large number of users with the platform to enable businesses to allow trading in the marketplace to build a joint. This allows not only minimizes transaction costs for service quality assurance system to guarantee secure transactions through the building.

In Korea, small government based on efficiency and effectiveness has been emphasized. It is focused on improving an operational efficiency and effectiveness of public service delivery by integrating with national capacities. The collaboration among relevant ministries and agencies is presented as alternative. It can be described as innovation regimes to improve national capacity by technology innovation.

However, unlike the private sector than the public interest in public should focus on profitability as the operational direction and consider a different approach in terms of deal is activated.

In this study, the increased need for the introduction of the platform in promoting the public domain at the time, considering elements of the national innovation system in terms of business models and analyzes presented. Therefore, research questions are (1) what are the common/different factors between public and private that are considered during designing of the platform business model? and (2) What are the additional factors that are considered for public sector's platform service model?

2. Platform Business in Public Sector

2.1. Platform Business

Many researchers suggested the importance of platform usage. Hagel, Brown and Davison (2008) defined the platform as a software infrastructure that supports the application operating. Hirano and Hagi (2010) suggested a platform as an intermediary between the stakeholders and argued the importance of incentives for participation. Platform business model could be defined as intermediary among various business players such as CP (contents provider)/SP (service provider), customer and value-added service provider in Fig. 1. Bhaskaran, Chung, Das, Heath, Kumaran and Nandi (2001) argued the importance of collaborative platform that can grow the size of market in the B2B (business to business) market.³

For the successful formation of platform business, the need for business ecosystem based on profit model and incentive design for the participation of stakeholders is presented.⁴⁻⁸ Also the condition of stakeholders in the value chain could be guaranteed for profitability of expansion or their purpose could come true. And the collaboration and fair competition in the business process are important.⁹⁻¹⁶ In addition, technical issues about UI (user interface)/UX (user experience) that can improve the user's accessibility is also presented.¹⁷⁻²⁰

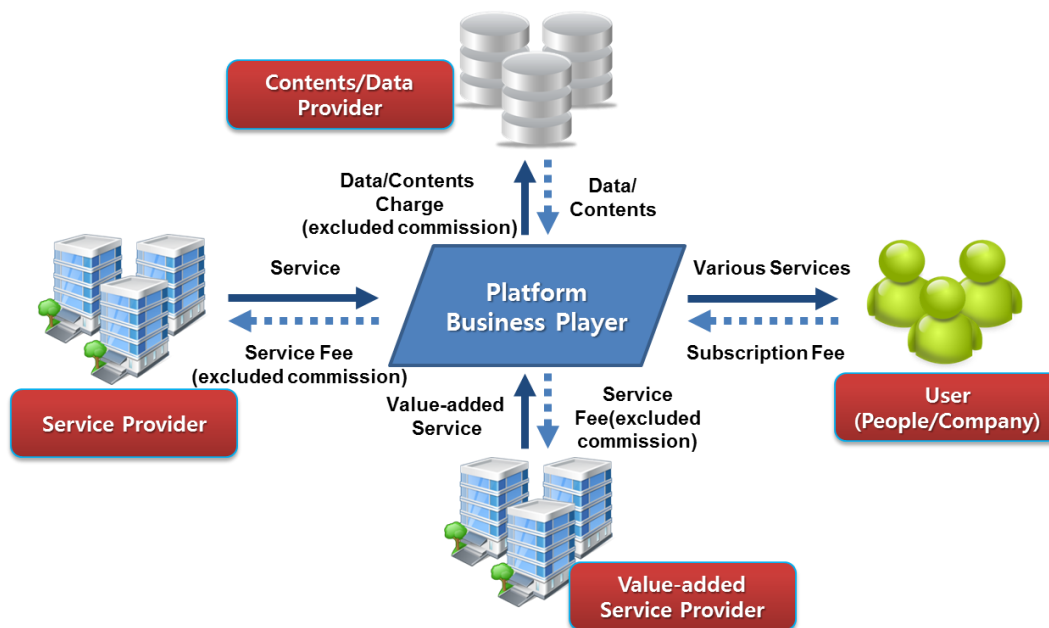


Figure 1. Platform Business Model

2.1. Issues in Public Sector

To solve the issue of nation and industry, applying techniques to improve the efficiency of the private sector is being considered. But there may be a difference between public and private, its stakeholders' purpose in participating with platform business. This means that firms, 'generating profit models and maximize', the purpose is clear, but in the interests of the public sector are more complex. Governance issues which ultimately caused by excessive platform just because it is associated with the survival of the organization based on public service innovation and extension. Therefore, the phase of platforms acts as an organization or unwilling to participate in accordance with the role determined by the distribution process and it takes a long period of time. Table 1 shows the different properties between private and public sectors in platform business.

Table 1. Difference Between Private/Public Sectors

	Private Sector	Public Sector
Purpose	Revenue generation	Public service innovation and extension
Types	Technology, product/service, distribution channel, advertisement, billing	Authentication, certification, institution, knowledge service, various support service
Main Focus	Many kinds of business players coming	Integrating with national capacities and improving citizen services

In this regard, technology regimes for innovation system are presented as an alternative. Competitive industries and countries need to be raised in order to systematize. To this end, the combination of R&D (research and development) capability, excellent human resources and organization, market demand, and institutions are required.²¹⁻²⁴ That means the process of design and construction of the platform should be considered in terms of operational efficiency needs to be an element on a business model. In addition, the role and responsibility of the participating institutions and governance for policy-based design should be considered as means in public sector.

3. Platform Model Analysis & Design

3.1. Project Overview

This research is based on the national R&D project, “Platform development for public service export business incubation,” that is ordered by the Ministry of Knowledge Economy (changed into Korea Ministry of Industry and Trade) during 2012~2015. The research areas are consisted of 7 subjects: (1) By the type of public service with the international competitiveness of Korean exports and the model to develop public services, and a platform for commercialization of export development, (2) Public services with international competitiveness of Korean exports model development (such as e-government), (3) Typed export target areas and related content and know-how to collect, Database design, Repository implementation, standardization and process design services, (4) Type of export platform for commercialization of knowledge development (industrial development model, *etc.*), (5) Korean export model was developed based on the business model of public service export development and commercialization, (6) Possible export market development methodology for identification and selection, and (7) Overseas individual districts/export business model, regional development and commercialization of public services.

3.2. Requirement Analysis and Concept Design

This project is focused on DSS (decision support system) design for public-service export companies to upgrade their capabilities and to get export opportunities. So we analyze the need of various customers such as export companies, relevant agencies and freelancer who are willing to participate in platform business by FGI (focus group interview). In the process of analysis, we defined the export process and derived some requirement against each process. As a result, platform service concept (called PSEIP, Public Service Export Integration Platform) that consists of methodology, decision supporting tools, collaboration tools and knowledge database based on the export process

(opportunity identification → environmental analysis → market analysis → feasibility study → export strategy → platform deployment) is shown in Fig. 2.

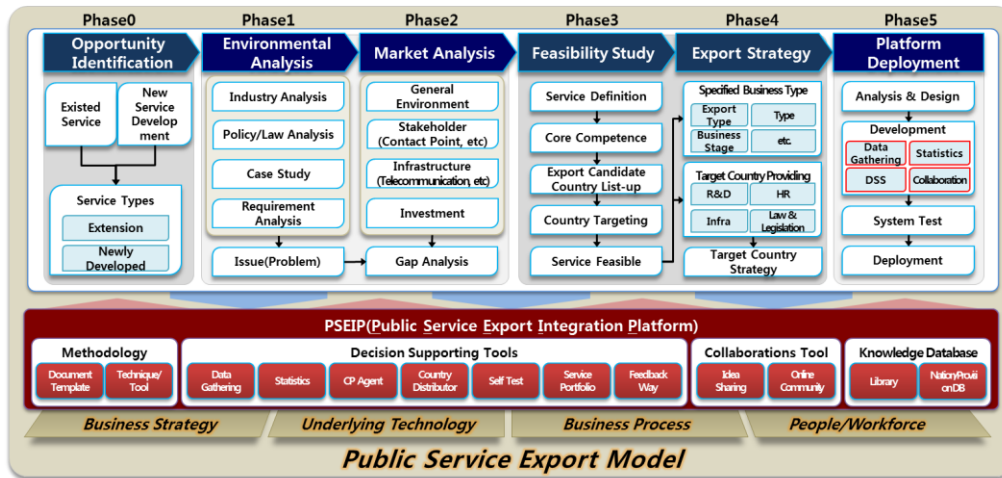


Figure 2. Overview of Platform Structure

3.3. Platform Strategy for PSEIP

To establish a new business ecosystem in public sector, building a knowledge-based creative cooperation structure among various stakeholders as private, public and 3rd sector is needed. Especially in the case of required capacities are not concentrated, the director of platform model must make known the appropriateness of participation by law legislation. In Korea there are many relevant government departments and agencies as KOTRA (Korea Trade-Investment Promotion Agency), KOICA (Korea International Cooperation Agency), KEXIM (Export-Import Bank of Korea), and *etc.* for support exports. Their roles and responsibilities based on laws are a little different and supporting areas are not the same either. Therefore, open collaboration structure must be set for stable operation of platform as shown in Fig. 3. It could be divided into 3 stages, participation and co-work, data access and control, and knowledge open and share.

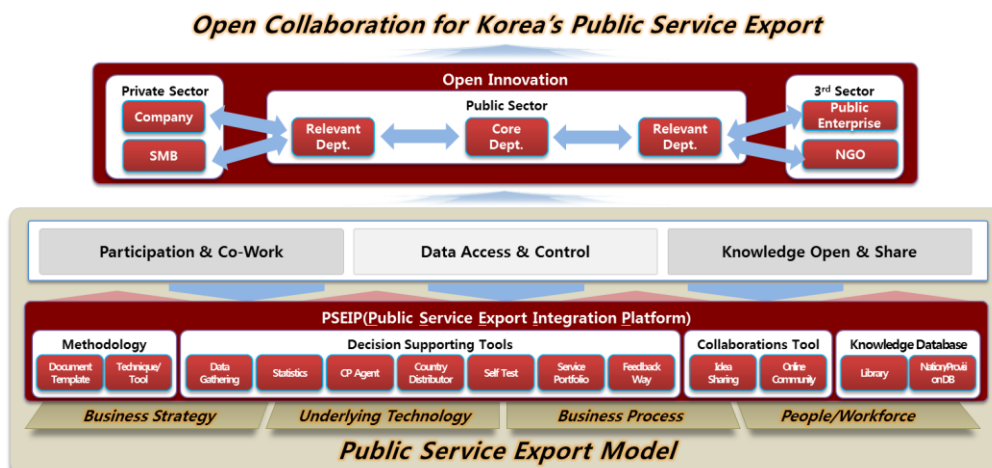


Figure 3. Collaboration Design for PSEIP

3.3. Operating Model

Operating model, Fig. 4 and as a valuable element in the business model was designed by the configuration, during normal operation have been made, which showed that profitability. Thus, exporters, related agencies, SP and CP could actively participate in such a virtuous cycle based on the established platform ecosystem was considered. Induce the participation of SP and CP who have capabilities to support export company with tailored consulting service in PSEIP.

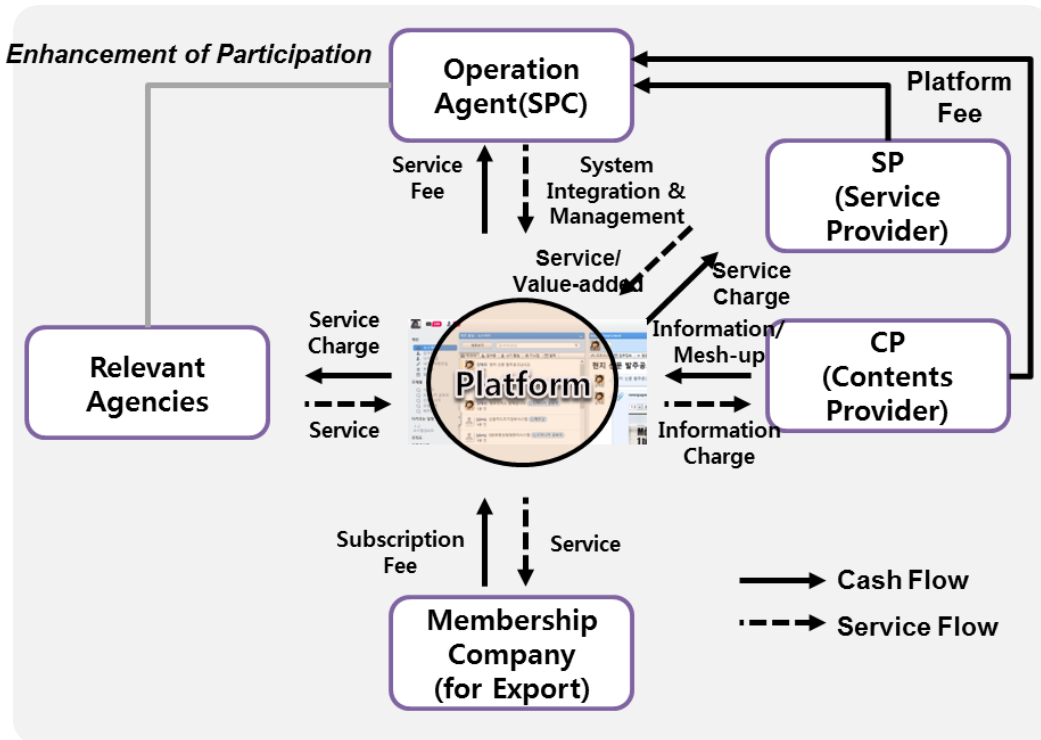


Figure 4. Operation Model for 'Public Service Export Platform'

4. Conclusion & Implication

Generation and diffusion of new markets through platform was successfully made on the public sector in accordance with the introduction of actively reviewing the objection.

Public sector is defined on the legal system in the need to redefine the roles and responsibilities, and the balance between them is additionally required for the role, respectively. Thus, the improvement of public services and the introduction of a platform for the spread, which can range ministries linked to the parent organization for opening shall be prepared based on the legal system. It can also support the establishment of a dedicated organization as needed.

In this case, CSF (critical success factor) for a successful platform strategy for promoting and conducting business are product, content, sales and marketing. For the superior product, capability diagnostic model/matching service-based platform deployment and governance is needed. And build cooperation for public-data linkage with various national agencies will help improve the quality and usage of service delivery. In addition, strategic sale approach for securing the captive market makes the platform more stable. Finally, early spread of the product/service awareness will set the platform's brand value high.

To implement the competitive export-support platform and secure business governance, providing the knowledge service by export capability diagnostic system will be needed. Also ensuring governance for business entity as SPC (special purpose

company) establishment, transfer of technology and consisting of consortium are required.

Collaboration through networking and partnership reliability ensure the diversity of content and services by business agreement (MOU, memorandum of understanding) signed with dedicated export-support institutions, such as KOTRA, KOICA, KOEXIM, *etc.* It means that design the business model for integrating with all capacities in Korea.

Through the step-by-step approach to ensure the captive market will be helpful. IT services company, specializing in SW development companies, public services and consulting company for export to target key component holds a public hearing and needs assessments. It will induce the participation of export promotion agencies by industry and public company in collaboration network.

Finally hearing, early build brands through business associations and differentiation will be effective. Presentation and media relations with forums and consortiums consisted by Ministry of Industry and Trade, NIPA (National IT Promotion Agency), KOTRA, KOICA, KOEXIM, *etc.* Also target marketing for export representative/planner with PSEIP brand contest and various events let the platform seamless operates.

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