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# REGIONAL INDUSTRIAL DEVELOPMENT IN JAPAN BY A CLUSTER CONCEPT

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*У статті розглядається регіональний промисловий розвиток Японії на основі концепції кластерів, яка є типовим використанням теорії «Ва», одного з головних принципів Р2М*

*Ключові слова: регіональний промисловий розвиток, промисловий кластер, малий і середній бізнес, теорія «Ва», створення регіональних цінностей*

*В статье рассматривается региональное промышленное развитие Японии на основе концепции кластеров, являющейся типичным применением теории «Ва», одного из главных принципов Р2М*

*Ключевые слова: региональное промышленное развитие, промышленный кластер, малый и средний бизнес, теория «Ва», создание региональных ценностей*

## 1. Background

The economic output from regions other than the three heavy industrial areas of Japan, e.g. the Metropolitan Area (main cities: Tokyo, Kawasaki, Yokohama), Central Japan Area (Nagoya), and Kansai Area (Osaka, Kyoto, Kobe), amounts to approximately 46% of the Japanese GDP as of fiscal year 2009 (Government of Japan, 2012 [1]), which stands at Japanese Yen 263 trillion or US\$ 2.31 trillion.

As with other cases in the industrialized countries of the world, most of regional economic output is produced by small to medium enterprises (SMEs) which are often referred to as “entrepreneurs” in Ukraine.

Japan’s remarkable industrial growth in 1960’s to 1980’s had much been contributed to by the vigor of the SMEs both in the three major industrial areas as well as other regions by way of their high craftsmanship/artisanship and pursuing only one or very few top positions in the domestic or even global market places in niche categories of products.

Although the Japanese SMEs are currently (2012) faced by fierce life-and-death battles amid global competition, they are apparently a key to continuing growth of Japan.

ngs to survive and, to do so, there is no other means than to demonstrate own technology or industrial art that make a market sense.

– The Japanese central government and prefectural (Oblasta) governments have initiated a variety of policies intended to innovate the regional economy, coupled with financial support for regional economy boosting or revitalization where justified from policy standpoints.

Although, there have been some minor variations year to year, the government policies to support regional innovation of SMEs have historically included that (a historical series of policy information by the Ministry of Economy, Trade and Industry [2]):

Step1: The central government played a pivotal role in developing clusters of industry that can drive the region to growth, focusing on technology and human capitals characteristic of the region (rapid growth stage of the Japanese economy)

Step 2: The central government was to support advanced model mechanisms of the region that implement the state’s industry policy by way of policy guide and development funds (stage of dealing with intensifying global competition)

Step 3: The central and local government help consolidate the existing industrial networks to accelerate and

## 2. Positioning of Regional Innovation of Japan by the Industry

– Salient characteristics of regional innovation by industry in Japan include:

– SMEs have had self-determination that in a small country with least natural resources, citizens and business firms must obtain their own shares of earni-

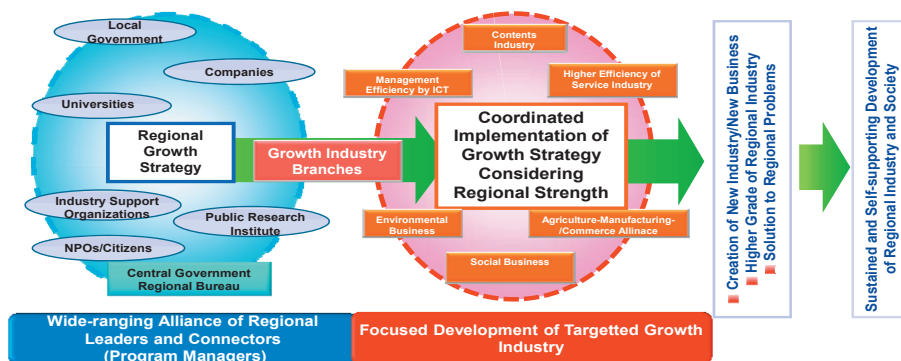


Fig. 1. Mechanism of Policy Guided Regional Innovation

streamline implementation of regional development strategy of special focus – shift from the even distribution of state resources to focused distribution (current stage of adjustment of the Japanese economy against the mounting state debt).

A typical overall framework of Step 3 of this policy is explained by Fig. 1 (Japanese Government Ministry of Economy, Trade and Industry, Western Japan Regional Bureau, 2009 [3]).

### 3. Industrial Cluster as a Representative Scheme of Regional Industrial Innovation

A crucial vehicle to lead regional industrial development in Japan is the “industrial cluster”. The industrial cluster is a regional partnership of manufacturing companies of different specialty to hammer out a solid consortium to combine specialty and form a competitive cluster of integrated production and marketing systems in a particular region.

In an industrial cluster, regional branches of the central government (such as Ministry of Economy, Trade and Industry - METI); prefectural governments; public corporations incubating and developing SMEs and new businesses; and universities and research institutes in the region join the industrial clusters to form industry - academic/research - government alliances to promote regional innovation.

There are 18 industrial clusters in Japan and 17,000 SME companies, basically targeting export markets, form regional industrial clusters; business and research networks involving 290 universities and polytechnics under Ministry of Economy, Trade and Industry’ policy guide and support (data as of 2010).

The core mechanism of the industrial cluster is explained in Fig. 2.

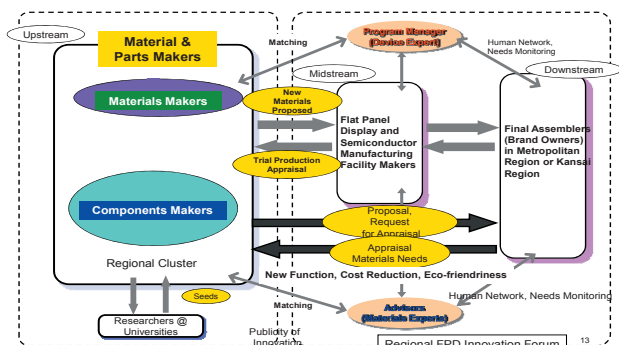


Fig. 2. Industrial Network of Electronics Materials Development

The figure illustrates how the four players engaged in flat panel display (FPD) manufacturing for TV sets, namely, (1) materials and part makers, (2) component (module) makers, (3) facility engineer-makers of FDP display and semiconductor production facilities, and (4) final assemblers (brand makers such as Panasonic), form closely-knit relationships to enhance their overall business efficiency and competitiveness.

Behind this, core activities of regional industrial networks for facilitating business matching and technology bridging forums exist to target networking for business making and promotion; joining intellectual, technological and managerial resources for R&D to incubate new business and new industry; and forming an eminent voice for inviting investment from the other regions and government support.

### 4. Ba Theory of P2M Supporting the Regional Innovation of Japan

The theories of “Ba”, one of the backbone philosophy of P2M, or “A Guidebook of Project and Program Management for Enterprise Innovation (Project Management Association of Japan, 2007 [4]) flows as blood in the regional industrial innovation mentioned above. These Ba theories were born as an analogy to the field theory of physics and electrical engineering and are one branch of human behavioral science studying how groups of human beings behave in response to given situational and contextual environment for accelerated knowledge spirals (Tanaka, 2011 [5]).

In P2M, the theory of “Ba” is applied in the Community Management as part of its Program Management. The community, or a platform of program management activities, refers to a common mental space where stakeholders of a program communicate with each other on common themes, objectives and goals to create new values through concerted efforts. In this case, the “Ba” theory is used in the context of a program by the name of an industrial cluster.

### 5. Conclusion

Regional industrial development in Japan has depended on both, high technology and craftsmanship peculiar to small and medium enterprises (SMEs), and the formation of a regional industrial cluster by them supported by the governments, which can be classified as one field of industrial program management application and in which the theory of “Ba” flows as an artery.

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**Abstract**

*This paper introduces a case in Japan on regional industrial development by a cluster concept which is a typical application of “Ba” theory, one of the mainstay principles of P2M Guidebook of Japan.*

*The regional economy in Japan, excepting that of the three major industrial regions, occupies 46% of the Japanese GDP and is characterized by industrial innovation based on both, locality specific technology and synergy originating from the combined strength of upstream - downstream integration of regional industrial firms, mostly small to medium enterprises, which is called an industrial cluster, named after a cluster of grape.*

*An industrial cluster is a form of application of the “Ba” theory, a network synergy theory born in Japan, which is a platform of shared context in motion for collaborative knowledge and value creation*

**Keywords:** regional industrial development, industrial cluster, SMEs, “Ba” theory, regional value creation

*Розглянуто питання управління компетенціями при формуванні команди мультипроекту. Запропоновано поняття профілю компетенції команди мультипроекту. Запропоновано методіку управління компетенціями при формуванні команди мультипроекту*

*Ключові слова: проект, мультипроект, команда проекту, компетенція*

*Рассмотрены вопросы управления компетенциями при формировании команды мультипроекта. Введено понятие профиль компетенций команды мультипроекта. Предложена методика управления компетенциями при формировании команды мультипроекта*

*Ключевые слова: проект, мультипроект, команда проекта, компетенция*

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## УПРАВЛЕНИЕ КОМПЕТЕНЦИЯМИ ПРИ ФОРМИРОВАНИИ КОМАНДЫ МУЛЬТИПРОЕКТА

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### 1. Введение

Увеличение масштабов проектов, расширение сферы применения проектного подхода, необходимость управления комплексными проектами, программами и портфелями проектов привели к смещению акцентов от проектного к мультипроектному управлению.

### 2. Анализ публикаций и постановка проблемы

Формирование мультипроектной среды вызвано необходимостью применения единой методологии при управлении крупными (как правило, территориально распределенными) проектами, объединенными общими ресурсами. Принципы мультипроектного управления могут быть применены также при управлении

портфелем проектов, если входящие в него проекты реализуются в рамках общих ресурсов [1].

С целью обеспечения эффективного управления инновационными проектами и программами предприятий применяется методология управления проектами и программами P2M, позволяющая миссия-ориентированным компаниям использовать, накапливать уникальные системные знания о управлении проектами и программами. С позиции P2M, мультипроектное управление – «это дополнительные (сверх управления проектами) действия, цель которых - создание ценностей» [2]. Данная методология основывается на пяти элементах общего видения управления проектами: системный подход; жизненный цикл проекта; интеллектуальное пространство знаний; заинтересованные стороны проекта; использование общих навыков управления. Особое внимание уделяется форми-