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Description	一般論文

## Acceleration of Global Innovation through Tacit Knowledge-based Small Network

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### *GVIN Scheme with Innovative Value Chain*

Author started a new novel scheme “GVIN = Global Ventures Industries Network” with the objective of providing “Ba” – a Japanese word meaning opportunity or place – of direct interactions between the top of both global ventures and global corporate companies, firstly Japanese companies, so that new innovation seeds are directly exposed to top management and/or persons in governance of corporate companies. “Ba” is literally translated as “field”, such as “electric field” or “magnetic field”. So, “Ba” includes atmosphere or environment rather than just one specific “location”.

Direct interactions are achieved primarily by means of “face-to-face meetings” of top persons between two parties, or sometimes forums – presentations by ventures to senior people in industries. They are followed by all kinds of business processes leading to strategic alliances. The emphasis is “face-to-face” meeting of top persons. GVIN business started in April of 2002 and gradually got attention and participation of global ventures in Europe, USA and Asia. Through the actual hands-on management of GVIN from the start to the present stage, the author experienced many issues, especially those related to cultural difference – culture based on nationality, based on companies, etc. Overcoming such issues is not easy, but essential to realize true success of global collaborative innovation – objective of GVIN to provide “Ba” of direct interactions between global ventures and top management and/or governance of global corporate industries, especially Japanese companies.

This paper will describe human network aspect from the standpoint of “small network of tacit knowledge (SNTK)” through the actual experience of starting, nurturing and managing a new innovative scheme “GVIN” in order to provide such “Ba” to needs and seeds holders, as the essential key to global innovation.

Actions and services of GVIN for global innovation are summarized below.

- (1) Effectively create the best opportunities and places – “Ba” – for the most promising global high-tech ventures (innovation SEEDS Holders) to meet the best suited & the most capable industrial companies (innovation NEEDS Holders) in Japan or any other countries
- (2) Provide global high-tech ventures for opportunities to effectively find the best strategic partners, mainly in Japan or Asia so far, but no regional restriction eventually
- (3) Provide global ventures and global Industries, new business opportunities and innovations
- (4) Carry out any necessary business processes leading to successful business alliances for global innovation.

### *Small Network of "Tacit Knowledge (SNTK)"*

The author stayed in the US and UK for six years each, as the representative and director of a large Japanese electronics company. Through this experience, he has explored, acquired and established extensive business and human network. This network consists of both business-based relationship and non-business-based human relationship or friendship. The author experienced that as the time goes by, more and more, the latter stays longer and reliable. That is, the sustaining human network consists of a kind of "small network of tacit knowledge (SNTK)".

Although the first encounter was primarily in business, the author experienced obtaining many long-lasting human relationship throughout the world, especially in the US and Europe. In the establishment of human relationship, in electronics business, in other businesses, in academics and in government, the author found out a few essential factors to make the relationship sustaining or long-lasting.

- (1) close friendship with mutual in-depth human trust
- (2) friend of a very close friend
- (3) mutual interest and respect, especially in the future

All three of the above can be summarized as "mutual human trust".

Author extended his human network, through collaborations, consortium, conferences, and any kind of global team. Besides business relationship, the author elaborated in extending the friendship in sports and hobby. As the result, the established human network worldwide is quite extensive and covers many social areas.

In establishing GVIN scheme, human network became the most important issue, because the business is to find the best Seeds Holders, the best Needs Holders and the best partnership for global innovation. This truly requires enormous comprehensive human network on both global ventures and corporate companies.

Since this extensive global human network contains "mutual human trust", the network is a sort of the chain of "tacit knowledge". Although there is no written contract agreement, no visible collaborative chart, no documents to share, no common data base, people in the network are extremely valuable and powerful potential partners.

### *Some Examples*

There are some actual examples of "small network of tacit knowledge" that the author experienced in his various global cooperation, global business, and global human relationship across the different culture, especially in relationship with GVIN scheme.

- (1) As the Board Chairman of CSR (Cambridge Silicon Radio) KK.
- (2) As CEO of GVIN
- (3) Through the editing work for the publication of ten volumes of new text series in MOT (Management of Technology) in Japan.

- (4) As a Board Member the Japanese Industrial Consortium “FMT = Forum Management for Tomorrow, Inc.”

All of the above examples show the actual examples of human network related to GVIN. This kind of “small network of human being” can be called “small network of tacit knowledge (SNTK)”.

### *Analysis and Modeling*

Examining the above examples and much other actual experience in establishing, expanding and sustaining human network, the following categorization can be duly induced.

- (1) Type I : Core Network

This is the human network formed with the direct meeting without any indirect introduction or reference, and involves no business relationship. For example, primary school classmates, friends in the same sporting club in high school, university, or even a company, belong to this category. The friendship formed in this category is extremely firm and everlasting. Size of the network is relatively fixed, depending upon the individual's experience. This type is called “Core Network”.

- (2) Type II : Genuine Network

This category of network includes friendship formed “not in business” environment, therefore it basically involves no economical interest. Friendship formed through hobby, like tennis, golf, hiking, painting, pottery, etc are categorized in this type. The connection is very strong, because they mutually trust and respect the other person. Author experienced much human relationship in this category. The size of this network can expand without any limitation.

- (3) Type III : Core Business Network

Included in this type are those friends obtained through the work in the same group, departments, projects, or programs. The connection in this category is relatively strong and reliable, because the friendship is formed as the first or early stage of business. In this category, however, the network strength can get stronger or weaker, depending upon the strength of business relationship, as well as the amount and degree of benefits or advantages. The size varies a lot individually, but cannot expand much.

- (4) Type IV : Combined Business Network

This is the network formed through the references, recommendation, or introduction of the already established network or friend. This is the network that can be expanded and strengthened without limitation. The scale or strength totally depends upon the efforts, energy, and many factors of individuals as well as those who help them to do so. The network formed through FMT connection can be categorized to this type.

There are various possible type-to-type transitions among the above four types.

The most basic and probable transitions are I to IV, II to III, II to IV, III to II, and III to IV. It is also possible that III will influence to expand to get more friends. Also, IV will expand by the influence of IV. That is III to III and IV to IV are possible transitions. Also, interactions will happen among all types,

but particularly between III and IV. So, all types of network can transit to type IV. In this sense, maintaining the type IV network which can grow without limitation is very important and effective. Thus, the growth model of “small network of tacit knowledge (SNTK)” can be described as the transition of network.

#### *Acceleration of Innovation*

Global innovation is achieved by the effective global cooperation of new technology seeds holders and innovation needs holders – usually large corporate companies. Especially, this best team-up must be done speedily and firmly. As the author writes in the patent which was filed to the Japanese Patent Office recently, the GVIN structure answers to this question and request. In order for the author to achieve this, it is necessary for him to team-up with both the seeds holders and needs holders.

Team-up with seeds holders, mainly “global high-tech ventures”, is done by firstly expose each other so that they trust mutually. This is often possible by identifying the other party through the human network of close friends, or through the reference by the established trustworthy organization.

On the other hand, team-up with needs holders, mainly “global corporate companies”, is done based upon the trust base established through the long-time successful and friendly relationship. This is especially so in Japanese industries.

In pursuing these processes, it is effective to identify various key persons as very close persons inside of GVIN through FMT network, because Japanese corporate companies have tough windows to outsiders but not so to people virtually inside.

Throughout the author’s experience, especially in GVIN business, he is confident that human network, i.e. “small network of tacit knowledge (SNTK)”, is the key. It is important, however, that the benefit must be on both parties – actors of using the network and those who are used – especially when the business will give profits to the actors.

#### *Conclusion*

Through the actual business experience in GVIN, the author identified the important issues, as summarized below, in the relationship between small network of tacit knowledge (SNTK) and the acceleration of global innovation.

- (1) Small network of tacit knowledge (SNTK) helps to accelerate global innovation. It is formed and established by the accumulation of many folds of efforts in trust-based friendship.
- (2) Through GVIN, global innovation can be accelerated, by the help of “small network of tacit knowledge”, both at seeds and needs sides.
- (3) Small network of tacit knowledge (SNTK) is effective and beneficial. But, it must be in two ways. That is, effectiveness and benefit must be shared between the actors and non-actors.
- (4) There are four types in small networks of tacit knowledge. The transitions among them are analyzed and a new spiral model was proposed to explain the growth of the network.