

IMPACT OF COMPETITIVE INTELLIGENCE ON THE DEVELOPMENT OF THE NORTH SULAWESI INDONESIAN PROVINCE

Philotheus Tuerah (*) & Henri Dou (*)

(*) UNIMA, Kampus Tondano, Tondano, NS, Indonésia
tuerah@hotmail.com

(**) Université Paul Cézanne, CRRM, Centre de St Jérôme, 13397 Marseille cedex 20 –
France
henri.dou@wanadoo.fr

Abstract

In this paper the authors present how the semi presential education courses of Competitive Intelligence produced a large impact on the region. This formation very different from the classical one grounded to local or French funding to send students abroad. The difference is mainly linked to the threshold potential of students that is necessary to produce a real impact on the Region, as well as to change the mentality of people that to produce new projects and new ideas.

To day, at the beginning of the third year of the course, the global impact, the methodologies and the perspective of the follow up in the future are analyzed.

Various aspects for Indonesia as well as for developing countries are indicated: they deal with the educational strategy and that the use of local student potential to analyze and understand the complexity of local problems as well as to try to propose various solutions.

Key-words

Competitive; Education; Project; Regional skills; Strategy.

IMPACT OF COMPETITIVE INTELLIGENCE ON THE DEVELOPMENT OF THE NORTH SULAWESI INDONESIAN PROVINCE

INTRODUCTION

In the year 2000, after a visit to the North Sulawesi Provinces and after various seminars on Competitive Intelligence and Technology Watch, we met the local authorities of the North Sulawesi Province, and the Governor decided to facilitate the development of a semi-presential course (Master R2, that is to say second year of the Master research) of Competitive Intelligence and Technology Watch. The place to conduct the course was the University UNIMA, located in the town of Tondano, North Sulawesi, Indonesia¹.

This second year of Master, will be conducted by the Paul Cezanne University by the CRRM responsible for this speciality². This Research Center (CRRM) worked with Indonesia for many years (more than 10), and during this period, various students came to follow the DEA or Master R2 in Marseille (France), and also some of them continued for the PhD. Most of the students who came to France, get a grant either from the French Government or either by Indonesian Firms or Administrations. But, because of the lack of resources and change in the focus of certain domains of grant allocations, the number of grants decreased during the last 4 years. Another point, very important also, is that during the period of more than 10 year which preceded the courses at UNIMA, the students came from different parts of Indonesia.

The global scheme of education developed with the Governor of the North Sulawesi, was in fact to try to accelerate the mutation of the Region (ASEAN constraints) by impulsing innovation and changes in mental model of people³. But, to reach its objective a critical

mass of students should be necessary. The paper retraces the different steps which were followed and the return of this operation (which still continue) as well for UNIMA than for the French people engaged in this process. This paper outline also the benefit of such experience for Indonesia and specially for continuing education.

1 INCREASING THE THRESHOLD

When we look back to our experience in Indonesian collaboration, over a 15 year period, we can note that during the whole 15 years, the total of DEA⁴ formed was about 50, and that the number of PhD was about 10. The students who came from Indonesia came from Java (Jakarta, Surabaya, Silegon), from Sumatra (Medan), from the North Sulawesi (Tondano, Manado) and from Iran Jawa. All the students were already working in industry, administration or education (universities). Globally, it means that it took 15 years to develop a force of 50 students (40 with the DEA and 10 with the PhD), these students being spread in various parts of the countries and in various institutions.

During all that time, we got a good contact with the former students, and we noticed that the impact of what they learn on their work, institution or Region was extremely weak, except in the Bank of Indonesia. A rapid analysis show that this lack of interaction was mainly coming from the very isolated position of this people, which could not create alone a dynamic of Competitive Intelligence.

¹ Competitive Intelligence and Regional Development within the Framework of Indonesian Provincial Autonomy

Henri Dou and Sri Damayanty Manullang
Education for Information, n°22, June 2004

² <http://crrm.u-3mrs.fr>

³ Technological Governance in ASEAN - Failings in Technology Transfer and Domestic Research

Jon Sigurdson and Krystina Palonka
Working paper, PO Box 6501, S-113 83 Stocklom, Sweden

⁴ we spoke here of the DEA, which under the reform of the French educational system is now the second year of the Master research. The first year of the same master being the odl deploma called Maîtrise. This educational reform is called the LMD (Licence, Master, Doctorate).

Then, we prompted us to follow the position of the Governor of the North Sulawesi to accelerate by this bias: the formation of a large number of people, located in the same Region and mostly in the same area (Towns of Manado, Tondano, Tomohon, Bitung and Manahasa Regency). In the same time, we had in mind to follow the impact of this formation on the Region and after two or three years to measure the social impact of this course on the global behaviour of the regional decision makers.

We are now entering the third year of formation. The number of students that we formed in the two last years was 20 and 25 that is to say 45. This university year (2004-2005) 25 more students will follow the course. Then, globally, in three years we will form more students than in 15 years of classical grant systems. Moreover, the global cost per year of the operation is far less important than the cost of let us say 2 grants. The global balance of the operation on the base of the two first years is:

| | Classical nb students DEA | Semi presential nb students DEA |
|----------|---------------------------|---------------------------------|
| 15 years | 50 | |
| 2 years | | 45 |
| | Classical nb students PhD | Semi presential nb students PhD |
| 15 years | 10 | |
| 2 years | | 6 registered |
| | Cost of the formation | Semi presential |
| 15 years | 600.000€ | 60.000 € |
| | | |
| | | |

Table 1: Comparison between the two strategies

Globally, we can say, that with the new strategy that we implemented in UNIMA, the number of students formed was multiplied by 10 and the cost divided by 10. **The global increase (general output of the system) is then a factor for 100.**

2 – VARIOUS WAYS TO CREATE THE LOCAL IMPACT

The local impact of the course in Competitive Intelligence can be created in several ways. We saw the first one, which is to get rapidly a large number of students in this discipline in a very limited time. This of course will facilitate the spreading of the ideas of competition, of the SWOT analysis (Strength, Opportunities, Weaknesses and threats), etc.. But, many other ways do exist.

We mainly focus on three of them:

- **The master thesis**

Each student, during the master must spend a period of at least three to four months on a project that he will present in front of an audience made of professors, other students, specialists and decision makers. So, we organized the subjects to

cover some of the main problems arising in the area:

- to develop added value products from natural resources, for instance coconuts, cloves, vanilla, fishes, sea weeds,
- to pin point some environmental problems (Tondano Lake for instance)
- to emphasize the preservation of natural resources and environment (Forests, corral reef,)
- to increase tourism, with all the related questions (clean environment, side products, health care, waste disposal, etc...

During this process we push the students to use information sources available from the Internet⁵. To do so we mainly worked on patents, since the databases such as Espacenet or US patent are cost free. Matheo Patent⁶ was used to collect analyse

⁵ The Internet access is not rapid. We used instant Telkom, using classical telephone line. The speed of the connexion is around 22 Kbytes, but the line remains steady and does not cut. In some case, the research was made in France, and the data transferred via CD-ROM or DVD.

⁶ Matheo Patent is available for a free trial on the host <http://www.imcsline.com>

and build up local databases (which can be updated) on the main subjects (for instance more than 5.000 patents references (including bibliographic reference, abstracts, claims if they are present as well as the description of the invention). In some cases the whole content of the patent was downloaded.

- **Groups of former students,**

The students, after succeeding to the master, will be aggregated in various informal groups, each of the group having some speciality and expertise. Of course, these groups are encouraged to work with the actual students to transfer or get new knowledge or to go deeply in some local problems.

- **The PhD students.**

Some of the students are engaged in PhD. Of course this is a small number (about 5), but they must, after three years, produce a research, and analysis and propose some possible solutions to various subjects that they will examine in their work⁷. Then, this research –action is now fully operational on the academic way, but it also to create links between these students and some local entrepreneurs.

The result of this organization get a very rapid output, since various proposals, ideas, and discussions arise in the municipalities, and in various political bodies and institutions on the future of the Province, the way that natural resources could be used, the impact of ASEAN on the local economy, etc... The main merit of these initiatives was that the course and its output went far away from the “walls” of the university and reach rapidly the economic actors of the regions, that is to say the civil and political society⁸.

For a country like Indonesia⁹, where the university remains most of the time separated

⁷ Competitive Intelligence, Technology Watch and Regional Development, Henri Dou and Sri Damayanty Manullang, MUC. Editor, Jakarta, December. 2003, ISBN 979- 98236-0-9

⁸ Homage to Professeur Stevan Dedijer, Regard sur l'Intelligence Economique, n°5, Octobre 2004, pp.32-39

⁹ Transformation des organisations en Indonésie sous l'impulsion de l'autonomie. L'Intelligence Compétitive comme catalyseur de transformation des modèles mentaux

from the economy, and where the technology transfer, probatory periods of students in industry, incubators, etc... are not wide spread, this approach forces the university to be more active in the economy of the region and it also shows that the students if rationally oriented, could bring to the local development valuable results and impacts.

3 - EXAMPLES OF “NATURAL” IMPACT OF THE COURSE

Some impacts of the course were “naturally” coming from the organization of the course itself.

- Use of information technology, to get information from France, to know about e-learning platform,
- Creating knowledge from collaborative work, either using some platforms or working in groups with various methodologies, the students learn that knowledge is not found on the shelf of the library, neither on Internet or in Databases, but that knowledge should be created to be actionable.
- Showing that “hard” technologies (for production) must be accompanied by soft one to be able to master the environment to understand the market, the global economy of a product, etc.¹⁰
- This idea to create useful knowledge for the Region and for the decision maker, bring the idea to develop for the decision makers a sort of regional “think tank”, which will not be working like experts which are “hired” according the political needs, but which will be permanently working on some various topics related to the future to the vision that the local people have of the development of their region.

Henri Dou, Sri Manullang
Humanisme et Entreprise, Juillet 2004

¹⁰ Soft technologies. See on this subject the work of Jin Zhouying, Academy of Soft Technology, Beijing, China.

Zhouying Jin, "The fourth Generation of Technology Foresight and Soft Technology", Futures Research Quarterly, the USA, 2002

All these aspects are particularly important because they point out that the old idea to say that the land is rich enough to feed everybody and that tomorrow will be the same than today, will not be true any more. The impact of the Chinese economy, the change in crude materials prices on the international market, the change in social needs (for instance consumption of cloves used in cigarettes, etc...) are examples of the topics that the group of people or the PhD students may think about.

Another important aspect in this collaborative work, is the fact that the students need information, and very often local information. They look for them, but they do not find them most of the time because they are not gathered in a system which will facilitate their management. Then, the idea of a regional information network for technology and economy arises in the mind of people. They are considering now, that immaterial products are one of the assets which will facilitate the local development. This is the first step to enter in the knowledge society and this is very important, since this is not through classical disciplines such as chemistry, biology, mathematics ... which used only scientific and academic information that this critical step may be reached.

4 – TOWARDS A NATIONAL MODEL

To day, the impact of the UNIMA experience in Competitive Intelligence Education went far away to the North Sulawesi. Various students (for instance in law), have been contacted by the central ministry in Jakarta to join various teams, other are now working with the local unions. The impact of the course on the way that people outside the Region perceive the result has been large enough to prompt the visit to UNIMA of the Scientific Advisor of the Indonesian Embassy in France as well as the visit of the person responsible of the continuing education for administration at the national level in Jakarta (the Bappenas).

We do hope, that the impact of the thoughts of the various people involved in the development of Competitive Intelligence will be strong enough to induce various changes in the management of the local tacit knowledge, in the mapping of the technological knowledge of

various areas, and in helping to cluster various small industries to get a critical mass able to structure the production and go to export.

CONCLUSION

The experience conducted in Competitive Intelligence, shows, that with the right international partner and with modern methodologies in education, a critical mass of students could be reached in a very short time. This critical mass of students is necessary to induce the necessary shift of the mental model of people to make them more realistic and able to build up their own development.

The cost involved is not important regarding the results. But we think that what is the most important is that the course was performed through the bias of continuing education. This helps people already in administration, industry, politics, to learn new ways to look and analyze problems, to consider globally the interaction of their Region with the outside world¹¹, and to be a permanent source of proposals and critical analysis. Without this educational facility, they will never get the opportunity to continue their education and to integrate the tacit knowledge that they built during their work with new methodologies tools as well as within the global approach of globalization.

¹¹ Decentralization in Indonesia by Kutut Suwondo
INFID Secretariat, Jl Mampang Prapatan XI n° 23
Jakarta 12790 Indonesia
<http://www.infid.or.id>