

Total Approach is a Must for Small and Medium Enterprises to Attain Sustainable Working Conditions and Environment, with Special Reference to Bali, Indonesia

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Attention and assistance to enhance the role of small and medium scale enterprises (SMEs) by the government is more emphasized due to the success of SMEs in earning significant amount of foreign currency when Indonesia had to face economical crisis in 1997. This policy has been highly recognized again since the bombing tragedy in 2002; with the excellent evidence to show how important SMEs is in helping and maintaining the economic development of Bali. But in the implementation the assistance needs to be remanaged again in a more proper and appropriate way to attain the ultimate goals. The three economic potentials, agriculture in broad sense, tourism and SMEs (cottage industry included), must be developed in harmony, interdependence, support and complementary each other, if possible as synergist to obtain sustainable development of Bali. While assistance to SMEs must be done in a more coordinated way among the government technical offices, universities, NGOs, banking, and other social community institutions. By doing so, there would be no duplication or gap, nor creation of new disadvantageous problems. It could be in form of ergonomics, occupational health and safety impacts and problems in particular, and in adverse working conditions and environment in general. Therefore it is a must at this moment to carry out total approach in helping SMEs, by integrating the effort to improve their working conditions and environment, built-in within the effort to enhance SMEs' quality of life through economic assistance. In this process a total approach through SHIP approach and Appropriate Technology intervention must be done wisely and timely. By so doing, SMEs' sustainable working conditions and environment shall be attained.

Key words: Total Approach, SMEs, Sustainable improvement

Introduction

For years Small and Medium Scale Enterprises (SMEs) have been considered as resilient economic component of the country as it could absorb a lot of man power as well as its independent character to globalization impacts. Therefore a lot of assistances have been given to these SMEs ever since. Based on previous unpleasant experiences, a more serious attention and correct steps must be taken into consideration^{4, 22, 24, 30, 31, 35, 46–48, 49}. As coordination lack has always been our obstacle and constraint to be successful, a serious holistic planning must be and become important issues to be concerned, committed

and conducted^{1, 2, 4–7, 9, 10, 14–16, 26, 29, 33–35, 43}. All assistances must be given in a very more coordinated way with aim to have maximal and optimal results, even if possible as synergist, especially in managing the growth and advancement of the three pillars economic potentials of Bali: agriculture, tourism and SMEs, for Bali's sustainable development^{8, 12}.

As all those processes shall be done within free global market, in which the product should also be competitive and accepted by the global development, concept with its various respected ISO must also be utilized¹.

This paper is trying to illustrate the total approach effort which has to be carried out to minimize the disadvantageous

impacts which might emerge due to inappropriate and improper assistances given to SMEs, and helping its growth and advancement to be globally accepted.

Materials and Methods

Review based on years of experiences in doing research, services and training, as well as doing direct observation at plant level, in resolving their problems, in improving and encouraging policy and decisions made for SMEs' sustainable development, particularly in Bali.

Results and Discussion

For years with aim to help SMEs' capability and survival and their growth for advancement, various types of assistances have already been given by many government technical departments as well as by financial institutions/banks, universities, NGOs and community service institutions. It is in form of capital loan, management and technical skill know-how, raw materials accessibility, occupational health-safety and ergonomics trainings and intervention, marketing assistance, obtaining better product and productivity, etc. But in fact, those efforts have not been done in a proper and appropriate way. Each party did it in its own way based on their duty and role with aim to be successful in their own program. There was no coordination in planning and implementation among them^{11, 32-35, 41-49}. It is understandable that there would be a lot of duplication and gap as well as idle outcome at the end. Very often, successful program of one party, created new problems and had to face by the others⁴⁻⁷.

Additional problems also very often occurred as consequence of uncoordinated program done by university students during their "student scheme program". This program is aimed to give students an opportunity to practice their theoretical knowledge and technical know-how in the real situation. Very often they attained their goal, but with additional problems left behind to the people/SMEs. And nobody cares about it, and the impacts finally have to be lifted by respected SMEs.

Similar mistakes were surprisingly made again when various parties through the so-called Social Network Safety scheme did a lot of financial help to SMEs, in which mismanagement was done intensively. Besides very often the assistances did not come to the right targets, it also has been given in inappropriate and improper ways. Besides idleness, the fund was also corrupted by various parties or individuals, although evidence based is very difficult to be shown. This happened when Indonesia had to face the 1997 economical crisis, during which the government decided to emphasize the role and function of the SMEs.

With the Bali bombing tragedy in 2002, the SMEs showed

again their significant role to help Bali's economy. The collapse of tourism has been overcome by SMEs' product export drive to earn foreign currency. They also significantly showed how important their resilient character and role in development were as well. Therefore it is understandable that special attention and appropriate action must be done for their growth and advancement¹.

Firstly, we have to go back to our previous agreement that the three economic potentials must be developed in harmony, interdependence, and support and complementary each other if possible as synergist, with which we started development planning and program in 1969¹². The mistake that one dominating sector could even inhibit the development of other sectors must not be done again^{3, 34-49}.

Then in carrying out the development efforts, through utilization of science and technology, it must be conducted through a total ergonomic approach to avoid the emergence of negative impacts, like complaints or feeling of pain, occupational related diseases, accidents, poisoning, pollution, environmental destruction or casualties. By total approach it means that the technology being used must be comprehensively assessed using 6 criteria: it whether or not technically, economically, ergonomically, and socio-culturally sound, save energy, and whether or not preserve the environment. And in analyzing each criterion, a SHIP (Systemic, Holistic, Interdisciplinary and Participatory) approach must be utilized. In this context, principles of sustainability, competitiveness, productivity and product quality were strongly applied. Various related and significant ISO, TQM and their ergonomic strategies, must also be considered. By using this approach, the end result would be work system and product that are humane, competitive and sustainable²⁹⁻³³.

This approach must be carried out by everybody who would like to help SMEs, for its successful result. In this context, proper and appropriate conducts must be done. First a more coordinated effort must be done by each party and then followed up by a total ergonomic approach. And as financial problems become SMEs first problem in priority, it would be strategically sound if the assistance could be "built-in" within the financial assistance given to them³⁰. By so doing, financial problem as well as those of working conditions and environment could be simultaneously resolved.

To carry out this scenario, ones who could think and act holistically must be trained in various relevant sectors of development¹³⁻²⁸. Since 1999, more than 3,500 people, representing the stakeholders of Bali, have been conditioned to obtain such capability through Integrated Ergonomic SHIP approach workshops. The general theme of the workshops is sustainable development of Bali, with various topics to be discussed. The output consists of "action plans" and the outcome is the "empowerment" of the participants, especially

in thinking and acting holistically, besides enhancement of knowledge and technical know-how on carrying out democracy and human rights. Through this workshop, “experience”, “expertise” and “perspective to look forward” were gathered together to be used to solve problems being raised as well as its additional value to be “bottom-up” and “top-down” processes in its discussion. With this approach, in holistic planning and weak law enforcement which become Bali’s root cause of all development problems being faced up to now could be solved in a more conceptually and basically based⁸⁾.

Besides these workshops, which have been carried out 30 times to date, this concept of how to think and act holistically, has also been “built-in” within the postgraduate ergonomics program at Udayana University. It aims to prepare graduates on ergonomics who could think and act holistically beyond their ergonomic expertise, to serve for sustainable development of Bali in particular and the world in general⁹⁾.

A model sustainable development village by name of Petiga, at Tabanan regency, Bali, has also been developed, in which the three economic potential factors of Bali have been developed in harmony. In doing so a Total Ergonomic approach has been implemented in its development and advancement. Petiga shall become a model village where agriculture, tourism and small scale cottage industry is really functioning in harmony. And all work system and product shall be humane, competitive and sustainable, which will be obtained within and through a health, safety, comfort and efficient working conditions and environment.

And all the above conduct has been practically legalized by the issued People Consultative Assembly Act, No 4/MPR/1999 which was more popular as the State Macro Development Guideline 1999–2004, which said that “Tourism Development must be done in holistic, interdisciplinary and participatory system, through comprehensive assessment of economical, technical, ergonomical, socio-cultural, energy-saving, and environmental criteria”. Although it related to tourism development but its mind and soul could be used to any developmental process⁵⁰⁾. In addition, Act No 13/2003, which said in general that in any enterprise OHS principle and concept must be carried out, also supported the implementation of the above idea.

Conclusion

To enhance the quality of life of the people in general, SMEs in particular, especially to minimize disadvantageous impacts to occur in the application of science and technology, a total ergonomic approach must be carried out in helping those to grow and advanced. It means that the technology being used or chosen, must be assessed comprehensively

through six criteria, namely, whether or not technically, economically, ergonomically, socio-culturally sound, safe energy and preserve and whether not destruct the environment. In doing so, a SHIP (systemic, holistic, interdisciplinary, participatory) approach must be conducted in the analyzing process. To accelerate the program to be successful, the program must be “built-in” implemented within the financial assistance given to SMEs for its advancement.

As coordination lack and shortage always occurred until recently in helping the SMEs, coordination step has become a must. All program assistances from various parties must be able to be coordinated from the planning stages up to their implementation, and this task must be able to be conducted by ones who have the capability to think and act holistically. Integrated Ergonomic SHIP approach workshop is the way to do so, in which through conditioning process, ones are taught how to think and act holistically. Similar approach has also been “built-in” within the curriculum of postgraduate program of ergonomics at Udayana University⁹⁾. A model village in terms of sustainable ergonomics, by name of Petiga, has started to show how the three economic potentials of Bali could be developed in harmony, by having a sustainable working conditions and environment and humane, competitive and sustainable work system and product. And the above idea has been legalized by the issuance of the Act No 4/MPR/RI 1999 and Act No 13/2003⁵⁰⁾.

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