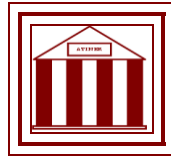


**Athens Institute for Education and Research
ATINER**



**ATINER's Conference Paper Series
SME2015-1643**

**Enhance Small Enterprises Assistance as
Perspective TQM**

**M. R. Ramadan
Assistant Professor
Industrial Engineering Department
Alexandria Higher Institute for Engineering & Technology
Egypt**

An Introduction to
ATINER's Conference Paper Series

ATINER started to publish this conference papers series in 2012. It includes only the papers submitted for publication after they were presented at one of the conferences organized by our Institute every year. This paper has been peer reviewed by at least two academic members of ATINER.

Dr. Gregory T. Papanikos
President
Athens Institute for Education and Research

This paper should be cited as follows:

Ramadan, M. R. (2015). "Enhance Small Enterprises Assistance as Perspective TQM", Athens: ATINER'S Conference Paper Series, No: SME2015-1643.

Athens Institute for Education and Research
8 Valaoritou Street, Kolonaki, 10671 Athens, Greece
Tel: + 30 210 3634210 Fax: + 30 210 3634209 Email: info@atiner.gr URL:
www.atiner.gr

URL Conference Papers Series: www.atiner.gr/papers.htm

Printed in Athens, Greece by the Athens Institute for Education and Research. All rights reserved. Reproduction is allowed for non-commercial purposes if the source is fully acknowledged.

ISSN: 2241-2891

13/10/2015

Enhance Small Enterprises Assistance as Perspective TQM

M. R. Ramadan
Assistant Professor
Industrial Engineering Department
Alexandria Higher Institute for Engineering & Technology
Egypt

Abstract

Small enterprises play an important role in the economic development of industrial world countries, and also of third world countries at the same level. Generally, small enterprises in the third world face shortage in productivity. Besides, the human factor represents approximately 60% of the essential properties of small enterprises that represent the ownership, leadership, management, and workforces. This paper aims to support the planning, and implementation stages of small enterprises, and to apply the small enterprise's beneficiary assistance program. Especially in the first stage of enterprise's preparation which focuses on selection approach of the enterprise's beneficiaries, especially managers, and owners to identify, and develop their skills as a perspective entrepreneur in order to implement their small enterprises. Moreover, the small enterprise's beneficiary assistance program includes stages such as feasibility studies, products promotion and marketing, human resources development, quality control and upgrading, enterprise management and assessment. Furthermore, this paper puts forth schemes such as flowcharts and fishbone (cause, and effect) to follow-up small enterprises and to assess the actual needs during implementation stages as perspective continuous improvement. Moreover the paper studies sample of small enterprises (SMEs) which had been funded from the Social Fund for Development (SFD) which is managed by the Egyptian Government, and the UNDP. The main findings end-up with a major responsibility of the manpower factor behind most small enterprise problems. In addition, the mechanism for technical assistance of small enterprise's beneficiaries must apply the scientific approaches during the implementing of an enterprise. Besides, the small enterprise's beneficiary assistance program must be adopted before the implementing of the small enterprise according to the actual needs assessment of the beneficiaries of the enterprises.

Keywords: Fishbone, cause and effect, flow chart, productivity, need assessment, technical assistance, total quality management (TQM).

Acknowledgments: Thanks to "my colleagues in the regional offices worked with me in SFD, Egypt".

Introduction

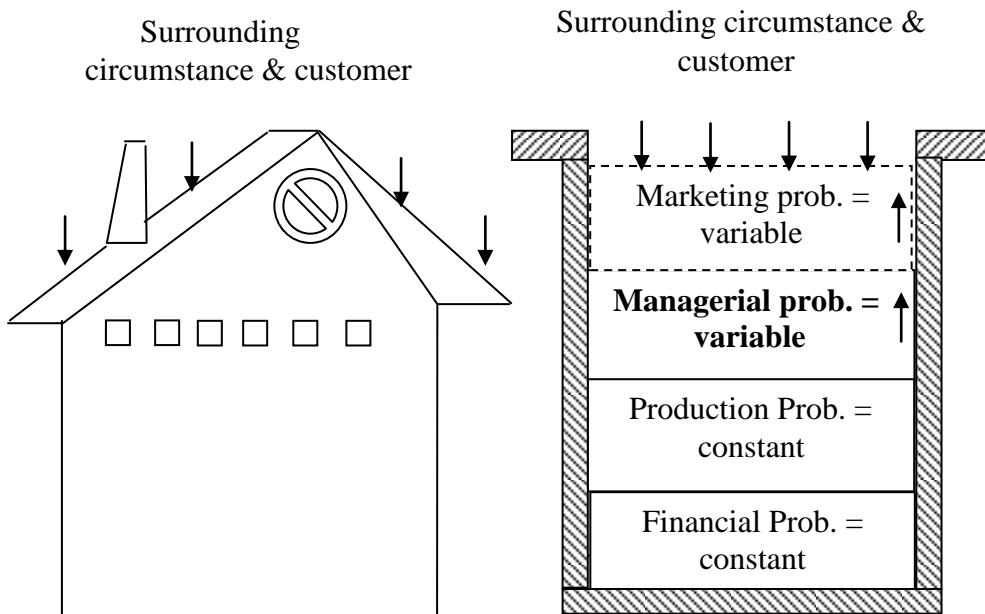
Small enterprises represent a main concern for researchers where most enterprises feed and complete large projects. However, they face some basic problems such as management, marketing, financial, and production problems, which influence productivity directly (Oliver 2001, Schomewiile 2001). Moreover, human factors often represents a high percentage of these problems (Hill and Stewart 2000, Tamimi and Sebastianelli 1998). These problems had been concentrated at an entrepreneur style for the enterprises beneficiary, untrained labors, unqualified marketing personnel, inexperienced personnel for enterprises management, poor safety and vocational health for workforces (Walker and Tait 2004), and the false policy for employment. Besides, the researchers had studied a variable solution to solve these problems and they had found that education and training are the essential base to improve human performance (Bates 2002). Furthermore, the TQM structure depends on both training and education to find the integral knowledge for the organization operations (Mc Camey et al. 1999). On the other hand, the training is considered a developed approach for education. Furthermore, researchers overlook both financial and production problems based on a wrong assumption of inert behavior of such problems over the planned service life of the enterprise components (Elmuti and Kathawala 1999). In the present study, all the problems have been taken into consideration where it was generating sources since the early stages for small enterprise establishment. The surrounding circumstances activate one or two of the enterprise problems towards enterprise failure. Data collection is suggested for 100 industrial enterprises and a problem analysis is then undertaken according to TQM tools by using the cause-and-effect diagram (fishbone). The features of the fishbone are suitable to determine the relation between a problem and its potential causes. In addition, the paper puts forth a mechanism of technical assistance to improve and develop the SME through its life cycle, especially in the planning, and implementing stages. Moreover, the present paper uses another TQM tool such as a flow chart to identify and manage the selection approach of the enterprise's beneficiaries, in the planning stage, for the small enterprise. Besides, the paper uses a flow chart as the TQM tool to identify, and manage a technical assistance approach in the implementing, prestart up, operation, and marketing stages for the SME as a perspective of continuous improvement, especially for the nonfinancial and financial sides, through the life cycle for SME. In other words, a flow chart is an important tool for technical assistance to improve, and for SME mechanisms to develop, where the process can be simplified.

The Depot Model of Accumulated Problems

Small enterprises are similar to a basket (hierarchy) where problems are continuously accumulated since the early financial stage, the funder's draft

may include a series of such defect constrains (unsuitable capital, shortage of risk insurance, and misuse for available fund). In subsequent to the production stage, the production capabilities are efficiently implemented to comply with the fund and marketing constrains aimed towards achieving the product or service as designed. Unintentionally however, production also adds a number of problems, namely, raw material properties, old methods and technology, old m/cs, unskilled laborers, and poor quality control. The third problem category is the marketing defects category, for example the false pricing policy for products or services, un-advertising, and un-promotion, weak competition, poor quality, no exhibitions, unqualified salesmen, ineffective marketing personnel, and lack of market places. The forth problem category is the management defects category which is common for all small enterprises problems, and consists of problems such as lack of experience for project management, weak follow ups for business performance, distorted organization, false employment policies, poor safety and vocational health and no training programs. Figure 1 shows a scheme of this proposal model. In the depot model, a fixed-thickness layer of the financial mistake rests in the bottom. Another fixed-thickness layer of production errors stacks up. Finally there are two variable layers of both marketing and management defects.

Figure 1. A Enterprise Model as a Depot with Ceaseless Accumulated of Problems



The Fishbone Representation

Figure 2 shows a fishbone scheme of problems, which may lead to failure. Spain has four branches, two of which have a fixed structure, and constant data. The two other branches, marketing and management, have a varying

structure and continuously update data. From the data (100) that industrial enterprises had funded from SFD, the financial, production, marketing, and management problems were collected as Tables 1-4. From the analysis of the collection, it can be summarizing that manpower problems are, as follows:

Lack of training for labor	85%
Undeveloped methods	85%
Shortage of performance control	75%
Lack of Safety and vocational health precautions	93%
Lack of essential knowledge for accountancy	90%
Unqualified sales and marketing personnel	87%

Figure 2. *Fishbone Representative of Accumulated Problems*

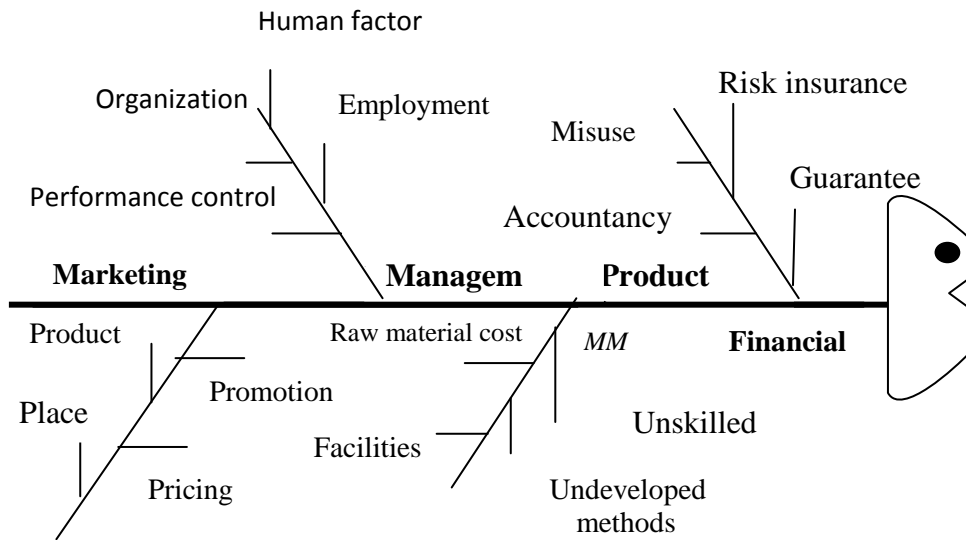


Table 1. Production Problems Problems

Problem	%
Lack of trained laborers	62
High cost for raw material	45
High maintenance cost	55
Troubles in electricity	31
Old m/cs	40
Undeveloped method	85

Table 2. Financial

Problem	%
Bank guarantee	65
Shortage of risk insurance organizations	75
Misuse of available capital	62
High risk insurance cost	85
Low liquidity	45
Lack of knowledge for accountancy	90

Table 3. Management Problems Problems

Problem	%
Lack of experience	87
Shortage of performance control	75
Distorted organization (Excess and low labors)	42
Lack of safety and vocational health precautions	93
Unqualified laborers	87
No training for laborers	85

Table 4. Marketing

Problem	%
Poor pricing policy	40
Shortage of advertising	85
No exhibitions	60
Unqualified personnel for sale and marketing	87
Lack of market places	75
Weak competitive for large projects	72

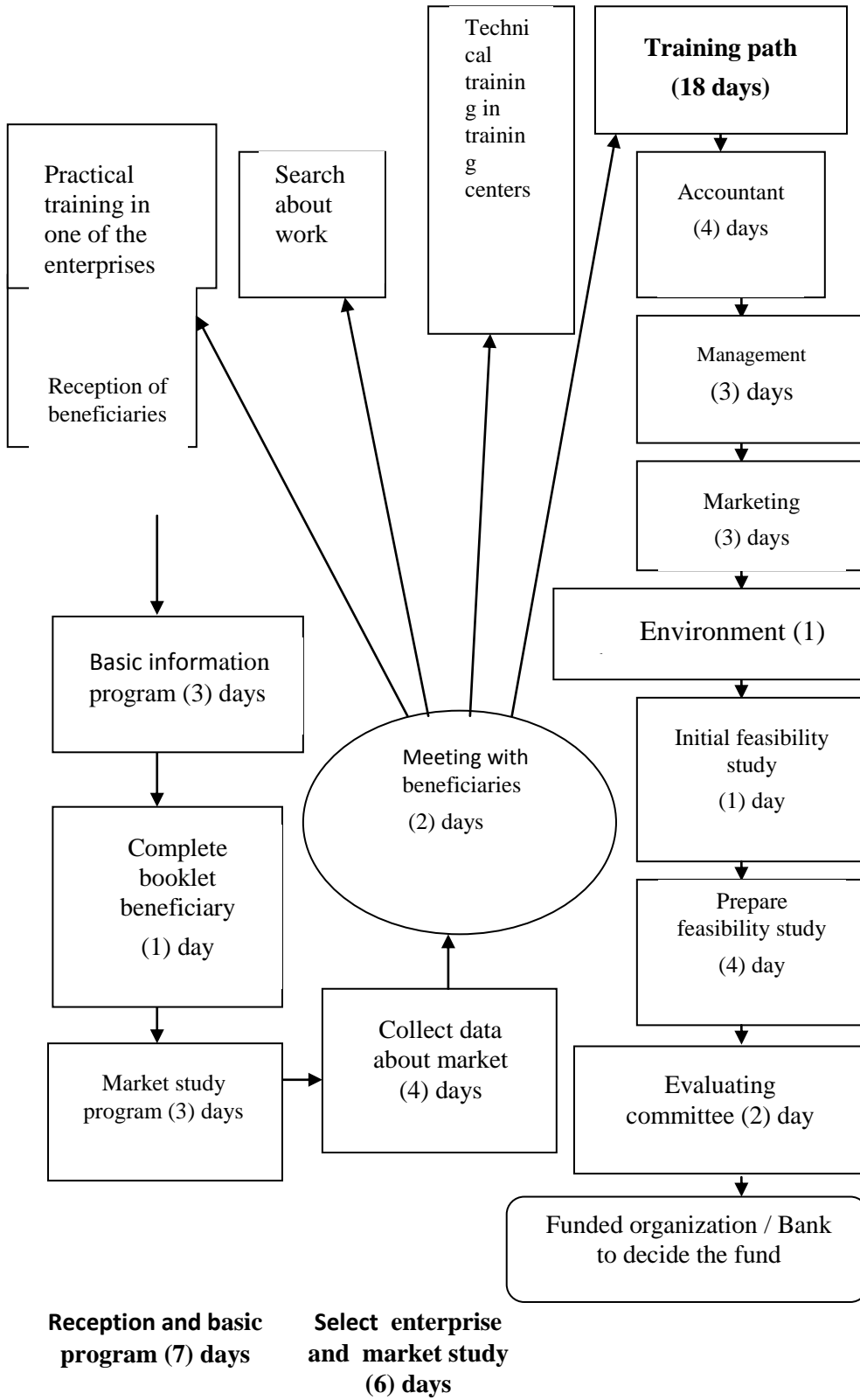
The Flow Chart Representation

From the problem analysis of small enterprises, it is found that managerial problems represent approximately 60% for both owner and manager, especially in the identification and formulation stages. So, it is essential to identify, develop the entrepreneur a style to achieve success in small enterprise. Moreover, it is essential to follow up and control the small enterprises in order to introduce the support and technical assistance through their life cycle especially, during the implementation stage to achieve the continuous improvement and productivity of the small enterprise as perspective TQM.

Technical Assistance Mechanism in the Planning Stage

Figure 3 shows the technical assistance approaches through the identification and formulation stages to achieve optimum planning for small enterprises. Besides, the entrepreneur will be qualified by basic training paths to achieve the financing stage.

Figure 3. Technical Assistance Mechanism in the Planning Stage



Technical Assistance Mechanism in the Implementation Stage

Figure 4 shows the technical assistance mechanisms in the implementing stage that support the nonfinancial and financial services for a small enterprise. Moreover, the technical assistance mechanism will continue through the pre-start up, operation, marketing, growth, and development stages as perspectives of continuous improvement to achieve high productivity and comprehensive optimum revenue.

Figure 4. *Technical Assistance Mechanism in the Implementation Stage*

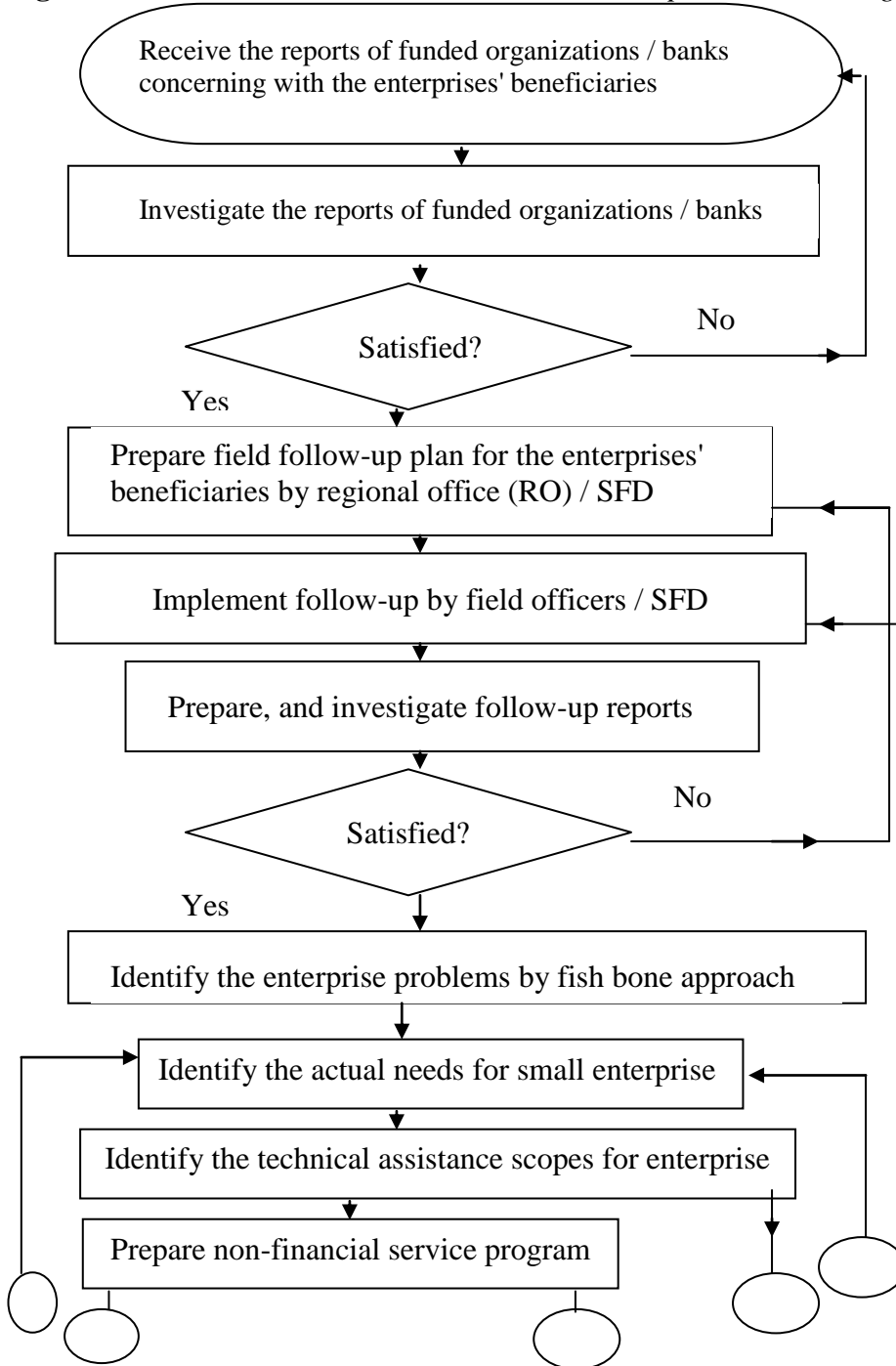
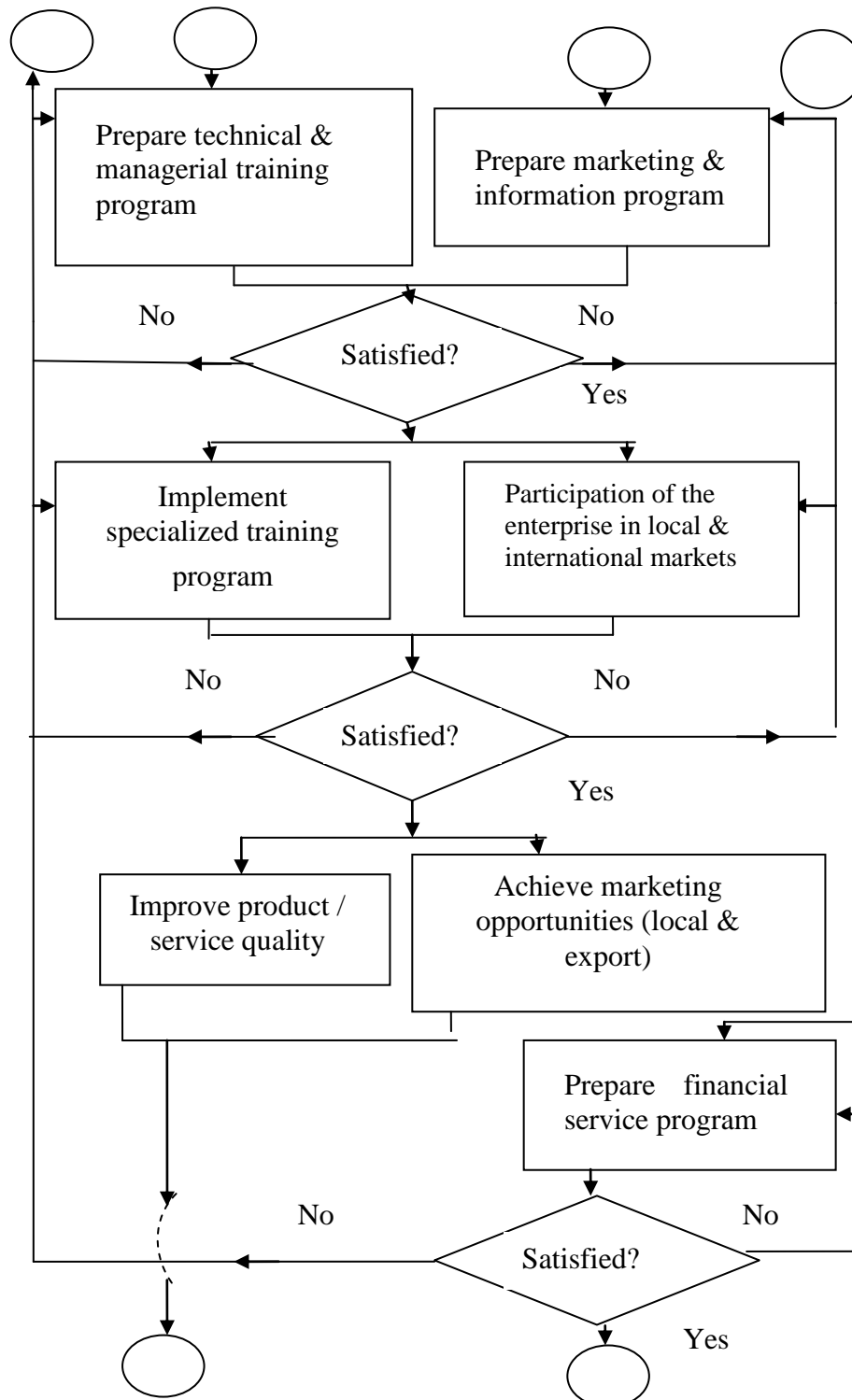
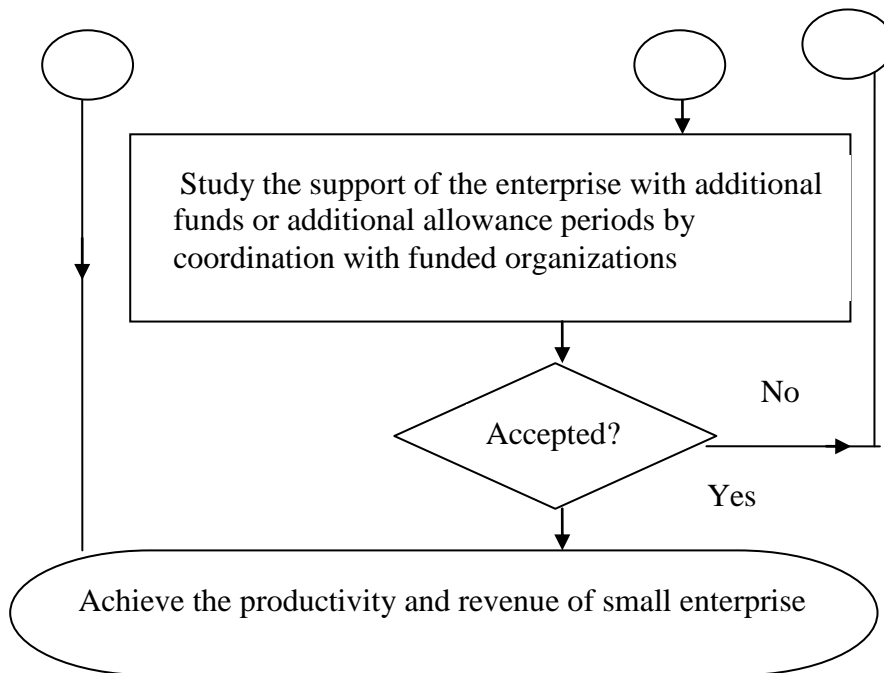


Figure 4. *Technical Assistance Mechanism in the Implementation Stage*





Conclusions

1. From Figures 1 and 2, from the findings we can conclude that the fishbone (Cause-and-Effect) diagram shows that it is a powerful tool to analyze and assess small enterprise problems.

2. From Figure 3, the technical assistance mechanism in the planning stage shows the selection approach for the entrepreneur to achieve identification and formulation until the financing stage of small enterprises.

3. From Figure 4, the technical assistance mechanism in the implementation stage shows that the flow chart diagram is the easiest and quickest tool used to manage and improve the financial and nonfinancial services. Besides, this mechanism is the backbone of the technical assistance process and must continue to improve and develop the life cycle of small enterprises through stages of marketing, growth, and development.

References

- Bates S (2002) Accounting for people. *HR Magazine* 47(1): 30-37.
- Elmuti DS, Kathawala Y (1999) Small service firms face implementation challenges. *Quality Progress* April: 67-75.
- Hill R, Stewart J (2000) Human resource development in small organizations. *Journal of European Industrial Training* 24(2).
- Mc Camey DA, Boggs RW, Bayuk LM (1999) More, better, faster from total quality effort. *Quality Progress* August: 43-50.
- Oliver R (2001) The return on human capital. *The Journal of Business Strategy* 22(4/July/August): 7-10.
- Schomewiile M (2001) Does training generally work? Explaining labor productivity effects from schooling and training. *International Journal of Manpower* 22(1).
- Tamimi N, Sebastianelli R (1998) The barriers to total quality management. *Quality Progress* June: 7-60.
- Walker D, Tait R (2004) Health and safety management in small enterprises: an effective low cost approach. *Safety Science* 42: 69-83.