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Entrepreneur's Handbook

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ENTREPRENEUR'S HANDBOOK



TECHNONET ASIA
U.P. Institute for Small-Scale Industries

ENTREPRENEUR'S HANDBOOK



TECHNET ASIA



U.P. INSTITUTE FOR SMALL-
SCALE INDUSTRIES

1981

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THE PROJECT TEAM AND CONTRIBUTORS

The *ENTREPRENEUR'S HANDBOOK* was prepared and written by the University of the Philippines Institute for Small-Scale Industries (UP ISSI).

The UP ISSI project team was composed of Serenidad F. Lavador, project director; Alberto P. Capati, Angelita S. Bajaro and Victor C. Abainza, project assistants; and Myrna R. Co, project editor. Eduardo M. Taylor and Ignacito U. Alvizo served as consultants. Administrative support was provided by Angelina N. Eduardo and Evangeline R. Punzalan and artwork by Priscila P. de Guzman.

A panel of contributors, representing several TECHNUNET ASIA Participating Organizations, met on December 8-13, 1980 at the UP ISSI to review the first draft of the manual. They were Sirajuddin Ahmad of the Bangladesh Small and Cottage Industries Corporation (BSCIC); Machdi Ichsani and J.M.P. Ohello of the Departemen Perindustrian (DP), Indonesia; A.M.A. Abeysinghe of the Industrial Development Board (IDB), Sri Lanka; Zahudi bin Haji Abdul Jalil of the Majlis Amanah Ra'ayat (MARA), Malaysia; and Prani Obhasanond of the Department of Industrial Promotion (DIP), Thailand; Felipe Papa, a Filipino entrepreneur, Paterno V. Viloria, small enterprise development specialist, Zenaida C. Madroño, UP ISSI's management specialist, and Lucita Lazo of the University of the Philippines Department of Psychology sat in as resource persons.

Earlier, in July 1979, representatives from these Participating Organizations met at the same venue to formulate the design and determine the methodology and content of the manual. They were Sirajuddin Ahmad of BSCIC, Omar bin Haji Bahrul of MARA, Vim Roonggrout and Prani Obhasanond of DIP, Hamsah Ynusir and Nadirsjah Ara of DP, A.M.A. Abeysinghe of IDB and senior staff of the UP ISSI.

FOREWORD

*"Developing countries should think out answers to their own problems and not rely totally on the help of the industrialized states...In the face of forces rapidly homogenising the world, it is crucial for developing states to keep intact their power of innovation. We lost this power when we abdicated our initiative to others in the belief that our problems and their solutions have been thought out for us by superior minds in other times and places."
(Philippine Minister of Labour Blas P Ople speaking as President of the ILO Conference held in Geneva in 1975.)*

For quite some time, we have been bothered that the entrepreneurship development programs being introduced in developing countries have been mostly patterned after models applied in industrialized countries. For sure, we can learn much from the experiences and achievements of the more advanced economies. Whenever applicable, they have been referred to and used. But the economic, social and cultural conditions are totally different that make adaptation much more difficult than "inventing" our own models. Hence, we undertook the HANDMAN Project - an Entrepreneur's Handbook and a Trainer's Manual on Entrepreneurship Development.

This is followed up by an on-going research project on the "Validation of Selection Schemes and Achievement Motivation Training for Entrepreneurial Development in Asia". The findings and conclusions of this research would eventually contribute to a revised version of these publications.

These publications are by no means complete. They have been designed so that organizations responsible for entrepreneurship development will be able to supplement the basic material provided with their own in-country "notes". In some countries, it would be necessary to translate these publications in the local language. We hope we have completed a beginning which would be useful to existing and potential entrepreneurs and to those engaged in training them. In the end, it is the risk-taking entrepreneur who can make things happen in our efforts to industrialize. But with scarce resources, the entrepreneurial risks must be minimized.

We acknowledge with gratitude the generous support provided by the Canadian International Development Agency (CIDA) and the International Development Research Centre (IDRC) of Canada towards the accomplishment of this project. Their contribution would be of immense value to the Third World.

LEON V CHICO
Executive Director
TECHNET ASIA

INTRODUCTION

No one gets rich working for others.

This truism has, of late, been strongly underscored in the current efforts for achieving economic growth. Hence, the developing societies' focus on the stimulation of the enterprising spirit, the attempts at nurturing a unique type of individual who works for no one but himself, that special breed known as the entrepreneur.

Drawn from academic sources as well as from experiences and practices of entrepreneurs who have successfully founded their own small enterprises, the materials provided in this handbook are aimed at providing the reader with insights, information and knowledgeability on the theories, general principles and practices required to initiate and operate a small enterprise successfully.

The handbook consists of nine chapters encompassing the whole enterprise development cycle - from the project conceptualization to the growth stage of the firm.

Chapter I focuses on the entrepreneurial personality. Since it is an accepted assumption that the key to business success is self-knowledge, this initial part deals with the assessment of one's entrepreneurial potentials.

Chapter II outlines the approaches available to the entrepreneur to identify business opportunities and screen venture ideas.

Having made a decision on what business he would venture into, the entrepreneur must then plan and organize his project with care and deliberation. How he should plan and make decisions on the varied aspects of the business to ensure its successful implementation is discussed in Chapter III.

After carefully identifying, planning and organizing the resources of his project, the entrepreneur is ready to actualize his project idea. Chapter IV, therefore, discusses the various management skills required of the entrepreneur.

From Chapter V through Chapter VII, the three functional areas of management - marketing, production and finance - are thoroughly covered and expounded on.

To ensure that his business is constantly in good health, the entrepreneur must periodically analyze it. Four most commonly used methods of business analysis are presented in Chapter VIII.

Because the small entrepreneur is basically a dynamic individual, he is concerned not only with mere survival of his business but also with its growth. Chapter IX thus deals on the matter of expanding and diversifying the small enterprise.

In summary, the handbook can serve as a useful and relevant material for both existing and potential entrepreneurs, as well as provide valuable information to researchers, development workers and policy makers involved in entrepreneurship promotion.

CHAPTER I

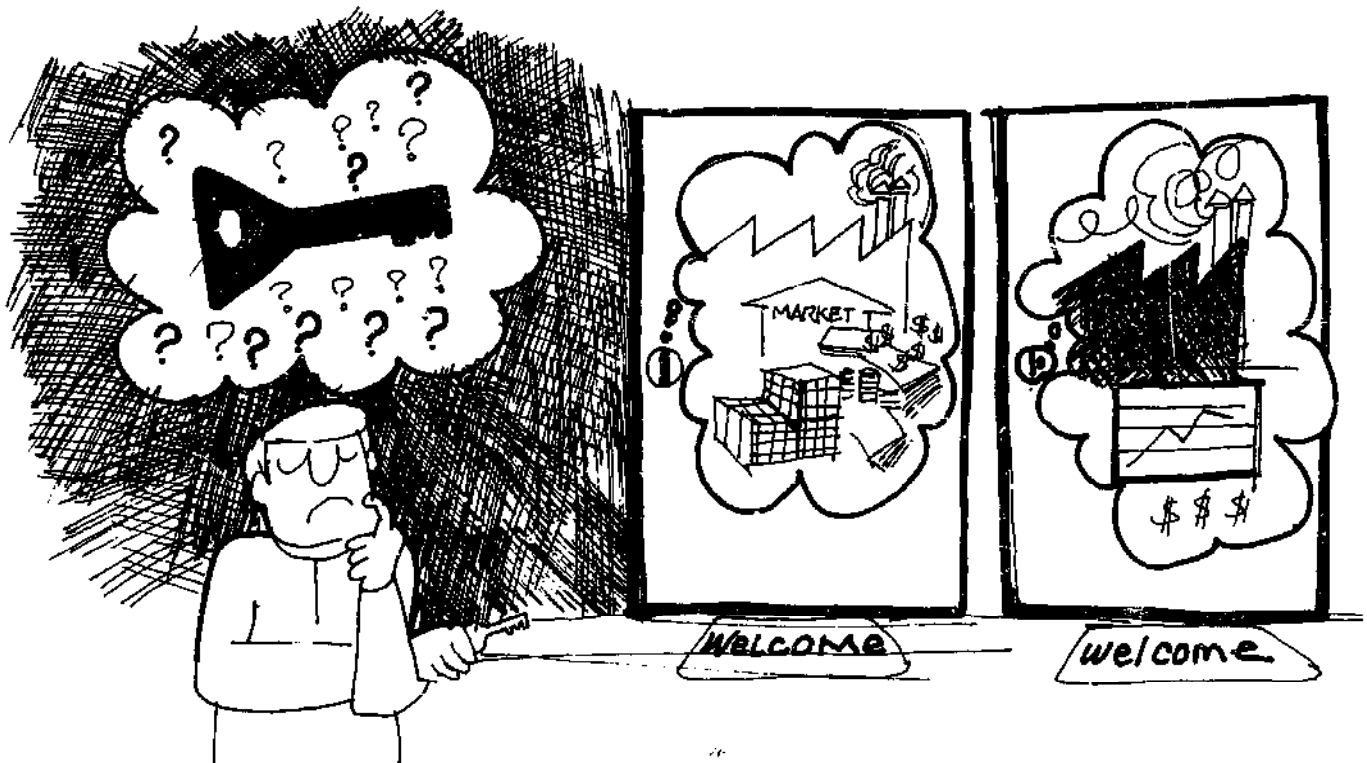
ENTREPRENEURIAL SELF-ASSESSMENT

The key to success in business is knowing oneself. Before beginning a business, it is essential to find out first if one indeed, has the so-called entrepreneurial spirit. How much of the personal characteristics of the successful entrepreneur does he possess? Does he have the right motivations for going into business? Have the events and circumstances of his life prepared him well for the entrepreneurial role? To answer these questions, this chapter leads the would-be entrepreneur on a candid adventure in self-exploration.

So you want to start a business! That is a good decision for certainly, business is a most rewarding career as well as a challenging and exciting adventure.

But maybe you don't quite know where and how to start a business. This chapter is intended to guide you on a journey of self-exploration, so that you may get to know yourself better. Why?

Let's face it. Wanting and doing are two different things. Succeeding in what you're doing is even another. Surely you don't just want to start a business; you also want to succeed in it, don't you? Well, *know yourself* first. It is your key to success in business.



In a very real sense, much of what will make for entrepreneurial success arises from a healthy feeling of self-worth, borne out of a realistic self-appraisal and an awareness of one's own strengths and weaknesses. Many ventures fail because the men behind the scenes neglected at first to make an accurate assessment of their capabilities to carry their visions through to the end. While taking pains to determine the economic feasibility of the enterprise, potential entrepreneurs often overlook the one important ingredient that spells the difference between starting and staying in business: *the entrepreneurial spirit*. It was this spirit that impelled all those famous, enterprising men to greatness. Columbus was an entrepreneur in much the same way that Henry Ford was one. Both knew themselves well enough to recognize their potentials and limitations. And they worked hard to develop the former and overcome the latter.

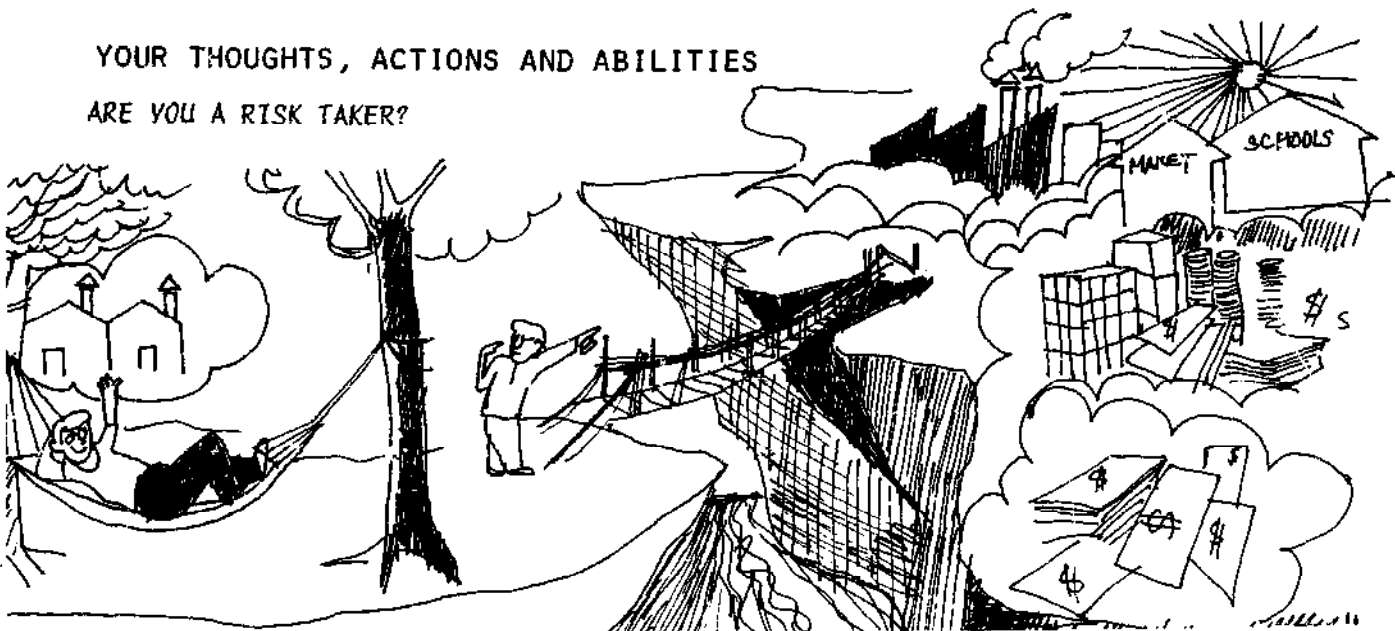
The entrepreneur who wants to start right starts with himself. If he believes at the outset that success comes because of what one is and what he can be, then he would have started right.

Are you an entrepreneur? How much of the entrepreneurial spirit do you have? This chapter will help you answer these questions. Initially, it leads you to assess how much of the personal characteristics of the would-be entrepreneur you have. Then it encourages you to judge your motives for setting up a business. Finally, you are guided to recall events and circumstances in your life to see whether you have been sufficiently exposed to the role you are expected to fulfill as an entrepreneur. Thus, at the end of the chapter, you will have answered the following questions:

1. Are my characteristics (thoughts, actions and abilities) likely to help me succeed as an entrepreneur?
2. Why do I want to start this business? Are my motives *good* enough?
3. Is entrepreneurship the career for me? Will I function best as a person if I were an entrepreneur?

YOUR THOUGHTS, ACTIONS AND ABILITIES

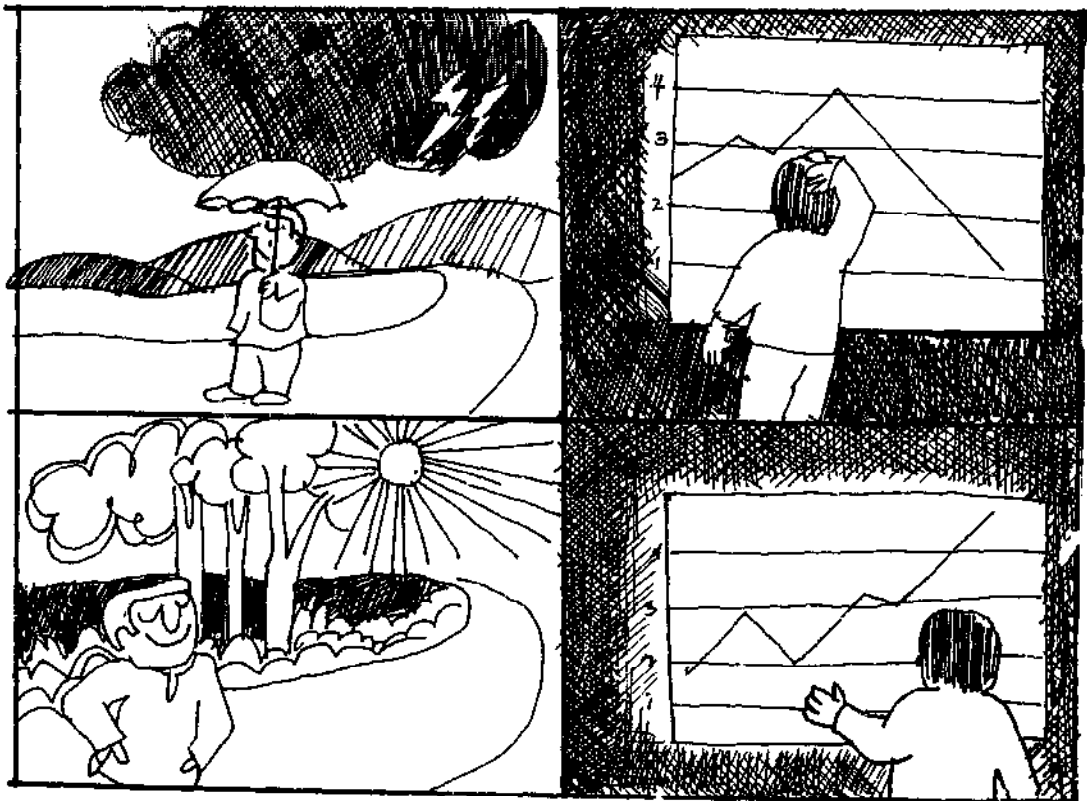
ARE YOU A RISK TAKER?



The entrepreneur likes to win, and to win the hard way. That means he never sets out on anything that is either too risky or too easy. He likes challenging ventures, those that involve moderate chances for success or failure. He feels happier and more pleased with himself when he succeeds in a task where others fail or fear to enter. Unlike the ordinary man, he does not shun risks but almost seeks them. He assesses the risk involved in terms of all his resources. He asks himself: "Do I have enough technical knowledge, management, expertise, money and personnel to carry out such a plan? Are my financial, technical, market, raw material and energy resources adequate? If not, what can I do to make up for the inadequacy? Is the missing element essential to make the business succeed or is it possible to go on without it? Based on his assessment of the situation, he decides whether the venture is worth taking or not. He favours a risk where there is about 60% chance that he will win.

DOES YOUR EMOTIONAL INVOLVEMENT WITH THE GOAL REFLECT HOPE OF SUCCESS AND FEAR OF FAILURE?

Once he has set his mind on a goal, the entrepreneur imagines how he would feel if he should succeed or fail in attaining it. He expresses these desires to himself and to others around him. His emotional involvement with the goal is total. The goal means so much to him that he thinks about it mostly in terms of *winning*. He gets so pre-occupied with winning that he plans his strategies and tactics well in advance. Fearing failure, he identifies possible obstacles and barriers to the goal, and prepares himself to prevent or overcome them. However, he is optimistic despite the possibilities for failure. He is so hopeful and bent on succeeding that he sees the future as bright and promising, not dark and gloomy.

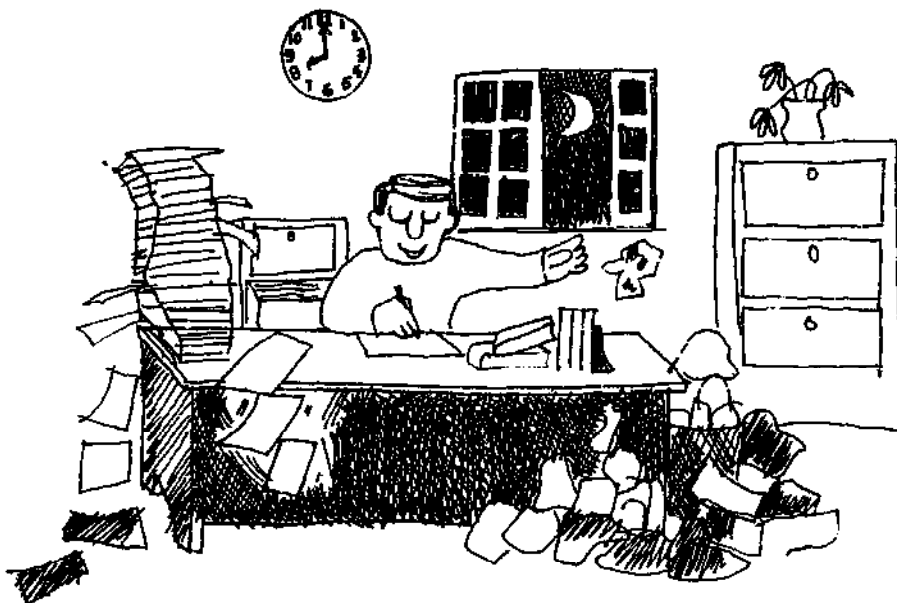


ARE YOU PERSISTENT AND HARD WORKING?



The entrepreneur pursues his goals to the best of his ability. He runs after it as if his very existence depended on it, harnessing for it all his talents, skills, abilities and emotions. His involvement is total. He persists, perseveres and works so hard even in the face of much adversity. He cannot stand unfinished tasks. No stress is too great for him for he thrives under stress.

ARE YOU ENERGETIC AND MOBILE?



Entrepreneurs make the world go round. They are so full of vigour and vitality it is difficult to resist them. Their energy is catching. They work beyond eight hours daily, much more than the normal capacity of most people. They work and drive themselves so hard it's a wonder where they get the surplus energy. They also tend to be mobile. Boring, routinary jobs don't attract them. Unpromising communities exasperate them. They therefore tend to move from one job to another, from one city to another. They are never content with the mediocre or the ordinary.

DO YOU WANT AND USE FEEDBACK?

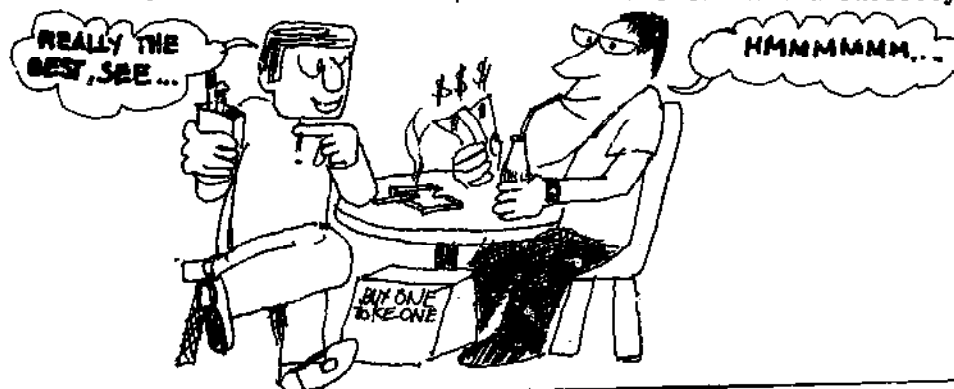
Entrepreneurs consistently want to know how well they are doing so that they are often called recognition-seekers. They are, in a sense, for they delight in knowing that they have done a splendid job. However, they don't seek feedback just for the pleasure they feel in being praised, but rather to know more about how they perform. Whether positive or negative, the feedback is welcome input to help them produce better and accomplish more. They always view events as learning opportunities, the past as aids in decision-making. They look for nasty feedback, digest them and act on them so they cease to be pitfalls in the future. Because they are open to feedback they are flexible. They do not stick rigidly to plans when they have ceased to be workable. Even in planning the business they consult with others (experts, consultants, friends, relatives) to gain feedback about goals. They are objective.

DO YOU ENJOY TAKING PERSONAL RESPONSIBILITY FOR ACTIONS AND DECISIONS?

The entrepreneur badly wants to be the one responsible for a job well done. He cannot sit in a team as a hardworking member while another gets all the glory that winning brings. He leads and makes things happen while all the others either watch or follow or are unaware of what's going on. He originates ideas and action. He takes the initiative. While others go on dreaming of great things, he actively does his best to get things done. He believes he is personally responsible for the way his life turns out to be. Success to him is a product of personal effort, not luck or fate.

ARE YOU SELF-CONFIDENT AND SELF-RELIANT?

Entrepreneurs are men of guts and steel. They are strong; they are tough. They have faith in their ability to win and they show it. They pursue life with infectious confidence. While the rest of the world regards the environment as formidable and overpowering, the entrepreneur views it as something that can be conquered and subjugated. He is willing to plunge into the unknown. Because of this, many people find entrepreneurs (especially those who are still starting and have not established their names to back them up) too risky to support. They seem to overestimate their capacities. Overconfident? In a very real sense, they are. It is no surprise to discover that a *successful* entrepreneur

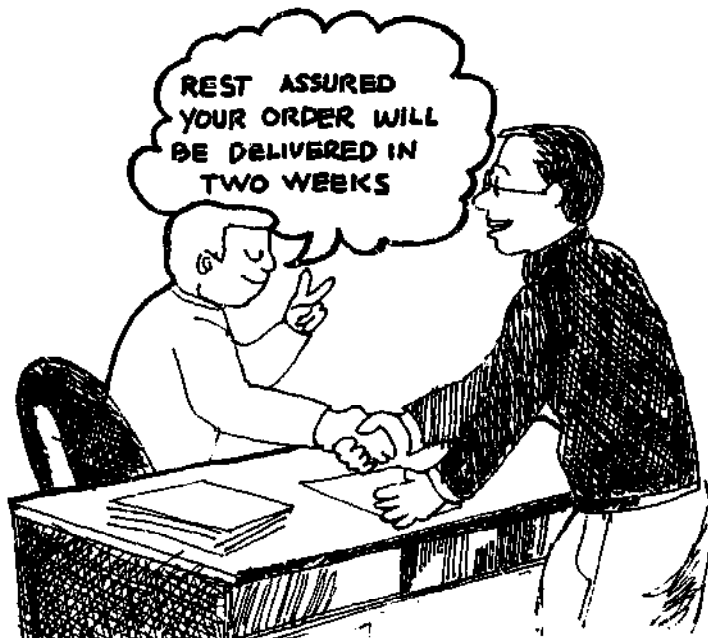


has a history of failures. Many times over, they have overestimated themselves. But they did not give up when they failed. They kept on going, not losing heart. Perhaps because other people tend to view the entrepreneur as too risky for comfort, he is forced to pursue his activities alone. But with or without others, he can get things done because he is self-reliant and independent. He has learned that he is his own best asset. Money, friends, contacts -- all of these merely augment and support what he himself has to offer: hardwork, ambition and competence.

ARE YOU KNOWLEDGEABLE?

Although many successful entrepreneurs did not reach high school, much less college, all of them are knowledgeable; they are usually experts in their trade or in the product that they produce. They learn about it well enough so that they don't wholly depend on "experts" to tell them what happens, how, where and when. They also recognize the value of current events: what's going on, where and why. This is why they get ahead, much earlier, than most people. They get informed. They usually read widely and educate themselves continuously about things and events. The knowledge they get from others makes them wiser.

DO YOU HAVE PERSUASIVE ABILITIES?



An entrepreneur can talk in a way that excites other people. He might be poor, with no land, no car, no big family name, no master's degree. But he dreams, and he talks of his dreams in a way that makes other people dream with him. Therefore, a relative lends him a land title, a friend lends him some money (enough for personal equity), another friend lends him a car. He talks to a friend who agrees to drive him to a bank, he presents all his acquisitions to the bank manager and he walks away with a loan to start his business. He talks to competent skilled hands around the neighbourhood promises them a good future with him, and off they go to start a business on a small pay and a big shared

dream. All the people he gets in contact with do what they can do for him because they are willing to do it. In other words, he can influence and inspire people.

DO YOU HAVE MANAGERIAL ABILITIES?

The entrepreneur is a leader. He runs his people in a way that makes them willing and able to do things for him. While he definitely controls the business, he is able to delegate some functions to his men so that he has more time for creative activities such as finding ways to improve his product, looking for new markets and expanding his enterprise. He is rational rather than emotional about managing his business. If his venture has grown beyond his capacities, he is willing to take in more people to work with him if they can provide assistance (e.g. funds, expertise) in making his business grow even more. In the face of pressure (whether from people or from circumstances), he decides and acts on the basis of what will work best for the business. For instance, when hiring, he hires on the basis of expertise and resource potential for the business, rather than on the basis of friendship or relationship. Unless it will do the business much good, he is not ready to compromise standards and policies simply because he doesn't want to hurt subordinates, whoever they are. He is decisive and firm, strict but fair, all to attain what he wants to get.



ARE YOU INNOVATIVE?

Entrepreneurs believe that there are always new and better ways of doing things. They are creative. Oftentimes their ideas may be wild or fancy but this merely indicates their pre-occupation with the *new* and the *innovative*. They are ever discontented with present ways, no matter how comfortable they are. They think of increasing the comforts! They are imaginative about the products that they sell. They dare to be different in the way they make and sell products. Almost always, they are worth the difference.

ARE YOU ACHIEVEMENT-ORIENTED?



Entrepreneurs are interested not only in the end result (attainment of the goal) but in the process of attaining it as well. They are concerned with excellent performance, setting high standards for themselves. Once they have committed themselves to a goal, they pursue it with a flourish, so to speak. And they do it for the satisfaction that they get from doing an excellent job. Often, they have been described as working with excellence for excellence sake rather than for the rewards that attend excellent completion of a task. In business, therefore, they actually don't work for the profit (they use it as a feedback mechanism to tell them how well they are doing) but for the growth potential of the firm.

The preceding discussion is by no means exhaustive in terms of describing effective entrepreneurial behaviour. So much has been said about the entrepreneur, and everything indicates that successful entrepreneurs are indeed a people set apart, exhibiting exceptional patterns of behaviour. What is even more interesting is that this *exceptionality* is not inborn, but largely learned or acquired. There are evidences to show that individuals can and do successfully teach and train themselves in adulthood to think and act like accomplished entrepreneurs. We challenge you to do the same. Use the insights you have obtained from this chapter to start you off on an inventory of your own strengths

and weaknesses. Pursue a program for developing and enhancing yourself on areas where you find yourself weak.

The questions were, no doubt, too general for you to assess yourself objectively. You may want to know just how much of a risk-taker you are: high, medium or low? In that case, you will find the rating scale in Appendix 1 helpful. The scale consists of 96 items which represent the 12 characteristics of the entrepreneur as discussed in this section.

YOUR MOTIVES

Your reasons for wanting to put up a business are just as important as the type/nature/form of that business. Here is a short checklist of reasons most people have for wanting to put up a business. Check those which apply to you, and include others which may not be listed.

MONETARY

- _____ To earn a living
- _____ To get rich
- _____ For additional income/profit
- _____ For financial stability/security

SOCIAL

- _____ To gain prestige/status
- _____ To be recognized and respected
- _____ To be a model to rural folks
- _____ To meet many people

SERVICE

- _____ To employ people
- _____ To upgrade the community
- _____ To help the community's economy

FAMILIAL

- _____ For son's/or family's future
- _____ To win wife's/husband's loyalty
- _____ To please father/mother

SELF FULFILLMENT

- _____ To be own boss/be independent
- _____ To achieve/fulfill something through business
- _____ To avoid employment
- _____ To be productive; use personal abilities
- _____ As challenge to own capabilities

OTHERS

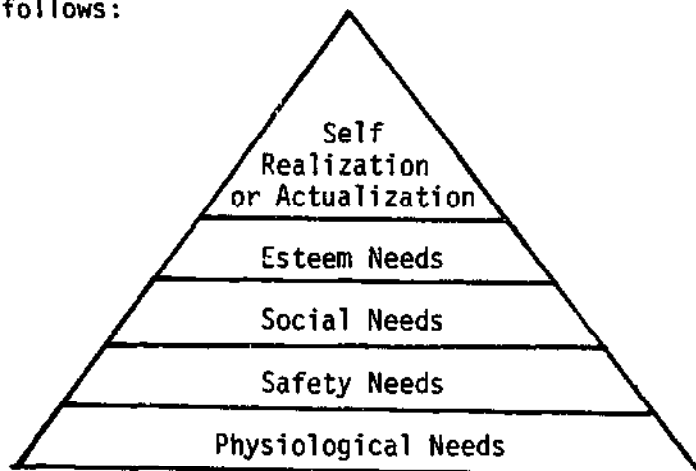
Now, go back to the list and rank your reasons according to *importance*. Record them here:

1. (Most important:) _____
2. _____
3. _____
4. _____
5. (Least important:) _____

Note what you have written as most important for wanting a business. This indicates your main motive for setting your business goal. Is it a good enough motive?

On motives, psychologists tell us that those which relate to an individual's need for self-actualization exert the most influence on behaviour because actions motivated by these needs tend to persist in time; they are long-lasting. This follows because self-actualization is a life-long process. It is a need within a person to respect himself, to feel whole-fully human and dignified in every respect. This need is the last of all human needs that gets satisfied because it is not vital for survival.

You have several other needs and wants that demand satisfaction and which underlie your every behaviour. These needs differ in intensity in terms of their effects on behaviour. Once satisfied, a need ceases to motivate your actions and other pressing needs attract your attention. This goes on up a hierarchy of needs, depending on the satisfaction of those on lower levels. Maslow ^{1/} has arranged them as follows:



^{1/}Maslow, *Motivation and Personality*, 38-47

Examine your reasons for setting up a business. Are they anchored on your need for self-realization? Or on lower needs? Are your motives mainly security, social or physiological reasons? Is it mainly money and profit that you want? You will do well to count the cost in starting a business. Know that a business worth its salt usually doesn't pay back immediately but only after years of good, efficient hard work. Be cautioned. You must be prepared to lose during the first few months (or years) because you actually will have to give out more money and energy than you will initially receive in return.

Can you see why your motive must be anchored on self-fulfillment? If it is not, you are most likely to get frustrated because of the length of time it takes for returns to come. Meanwhile, how will you and your family eat? Consider - it may be too great a risk for you.

Actions motivated by the need for self-actualization tend to persist in time. Perseverance stems from the nature of the need. It takes a lifetime to satisfy and it is vital to one's self-respect. In business, persistence and perseverance can be a most valuable asset in meeting the inevitable: the various trials and hurdles that await you. Temptations to quit will be plenty and inviting. Learn from the great men of enterprise. They had the will to go on. They viewed their plans in terms of long-term goals so as not to lose perspective. Are you prepared to stick through your plans? Would you meet the *challenge*?

YOUR READINESS FOR THE ENTREPRENEURIAL ROLE

Past events, circumstances and situations in your life play an important part in your character formation. For the most part, it has moulded you to become a person with specific attributes to best fill a role in society. Depending upon how it has moulded you, your past will determine your contentment and satisfaction in any occupation. It has equipped you with abilities, exposed you to circumstances that will enable you to function best as an individual. Your task is to find out if these preparations meet with no contradiction in the entrepreneurial role. You want to be sure you're on the right path and can go right ahead with confidence and full assurance.

Take your personal history. Have your life circumstances favourably prepared you in terms of attitudes, traits and dispositions to enable you to meet the exacting demands of a business career? For instance,

- Were your parents more permissive than authoritarian?
- Were you, as a child, trained to be self-reliant and independent?
- Was your family economically (status) progressive?
- Were your parents (relatives or close friends) in business?
- Did you have to deal with some anxiety-laden or stressful situations (such as death, separation, poverty, rebellion against parents)?
- Have you experienced what it means to be resourceful, to have the will to meet life head on?

- Have you tried to rise above an unpleasant life circumstance on your own?

The essence in asking yourself questions like these is for you to take stock of your own experiences in independent, risk-taking, decision-making and goal setting. In other words, to honestly see for yourself just how entrepreneurial you have been in the past. In your aspirations to become a successful businessman, there will be times when you meet obstacles and frustrations. It may be easy to lose heart. One way to be prepared and not be discouraged is to respect yourself from the very start. If you have had a very stable, sheltered and comfortable childhood, so much so that you had no adequate exposure to independent decision making, don't despair if you commit error in making decision at the start. Take the failure as a learning experience. Accept your weakness, and learn how to make it less of a problem.

Further, try to explore the degree to which you have involved yourself with your business goal. How pre-occupied have you been with your plans?

Think back as far as you can remember. When was the very first time you thought of owning a business? _____. How old were you then? _____ Subtract this from your age now. _____ Ponder upon the result. That's how long you have been involved with a career in business.

Are there other goals in your life which pre-occupied you longer or just as long as your goal of becoming a businessman did? _____ If there are, are they in conflict with your business goals? _____ Did you answer yes? Then now is the time for you to resolve the conflict.

How important is it for you to accomplish these other goals above the business? _____. If they should come first, lay this handbook down and set it aside. You should not start the business with half of your heart somewhere else. No matter what it is, the business you are planning demands and deserves your whole attention, your whole devotion and total commitment. Less than these, you cannot expect success. Pursue something else. Business cannot be secondary, it must be your No. 1 concern.

How involved have you really been with your dreams in establishing a business career? If you were struck with the idea in your youth, do you remember having toyed with it over and over again in the past up to the present? Over the years, have you come to place value and importance on this goal so much that attaining it will mean to you a realization of your self or your personhood?

We suggest that the longer and more strongly you are involved with your goal of becoming a businessman, the more persistent you will be in your pursuits to be one. Long-term involvement with a goal is highly associated with persistence in activities that lead to its attainment. And almost always, persistence makes for success in business! This is because persistence indicates the degree to which you have identified yourself with the goal. Are you inclined to attach your very existence upon the business? You may have to, in order to succeed. As Marquis de Vauvenargues put it . . .

"In order to carry out great enterprises, one must live as if one will never have to die."

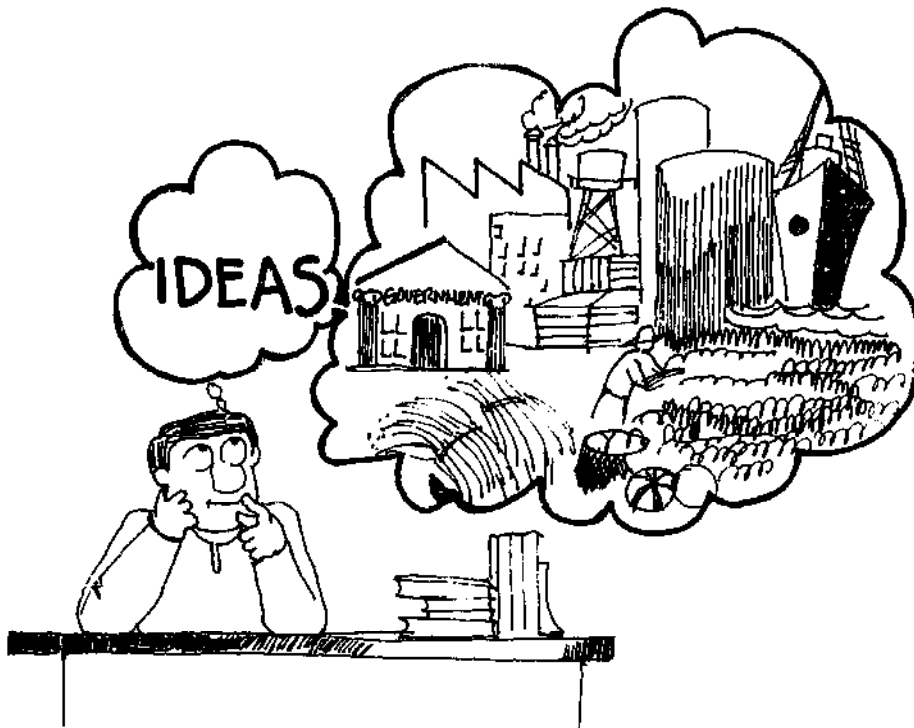
CHAPTER II

OPPORTUNITY IDENTIFICATION AND PROJECT SELECTION

A business originates from an idea. The prospective entrepreneur assesses his political, economic, socio-cultural and technological environment in order to generate worthwhile venture ideas. There are also sources of information and assistance in his country to guide him to project opportunities. However, after he has more or less identified a project idea, the entrepreneur does not immediately commit his resources and energy to an expensive project feasibility study. There are two preliminary approaches available to the entrepreneur to further screen venture ideas before going into a pre-feasibility study and, finally, a project feasibility study.

Business opportunities frequently originate from an idea. It is, therefore, important for a would be entrepreneur to keep a keen and open mind with which to generate and perceive business ideas and discriminate which ones are worth further study for their economic potentials. In the process, he would do well to remember Shakespeare's advice that *all that glitters is not gold* or that of Henry L. Shih when he observed quite perceptively that *few people recognize opportunity because it is often disguised as hard work*.

There is no surefire method of choosing the best type of business to go into. However, there are various guidelines that can assist the prospective or existing entrepreneur who is seriously on the lookout for business opportunities.



ASSESSMENT OF THE ENVIRONMENT

The ability of an entrepreneur to perceive and identify business opportunities is proportionate to the degree to which he is aware of the economic, political, socio-cultural and technological developments in his environment. An assessment of the environment for what it has to offer in terms of opportunities and risks is the foundation of opportunity identification. Scanning the environment is then a mental exercise an entrepreneur has to perform which should be supplemented by some physical effort.

POLITICAL ENVIRONMENT

The political climate is, in part, a measure of the over-all investment climate prevailing in a country or state. It is important for a prospective investor to consider the positive actions which the government has taken to encourage private investment. These measures include the promulgation of liberal or non-restrictive investment policy, existence of an investment promotion centre, creation of industrial estates and free trade zones and availability of low-cost loan capital to private investors.

The government of *Bangladesh*, for instance, has published an *Industrial Investment Schedule* indicating separate allocation for small and cottage industries and a *Guide to Investment in Bangladesh* to promote and attract industrial activities. Seeking to achieve a balanced development of the country, the government allows some preferential facilities and tariff concessions to those industries located in the BSCIC (Bangladesh Small and Cottage Industries Corporation) industrial estates and outside selected developed industrial zones. Likewise, certain additional facilities like lower interest rates are provided for export-oriented industries. The government sees to it that the facilities and concessions are provided to the developed and the relatively less developed or underdeveloped areas of the country on a differential basis.

Among the government institutions aiding small entrepreneurs in *Fiji* are the industrial promotion division of the Ministry of Commerce and Industries which provides consultancy services and conducts training for new entrepreneurs; the Fiji Development Board for credit assistance; the business opportunities and management advisory services of the Ministry of Fijians Affairs which guides the indigenous entrepreneurs who wish to start their own business; and the Fiji National Training Council which administers all training in Fiji, provides advisory services and conducts on-the-job and off-the-job training to all sectors of industry.

The government does not bestow any special favours to small manufacturing enterprises in *Hong Kong* but guidance and direction necessary for the growth of manufacturing are rendered by a number of government departments and semi-official institutions. The government acts to help develop markets and guide entrepreneurs through import and export licensing exchange controls, preferential tariffs and the like. Overall, the business climate in *Hong Kong* may be briefly described as "laissez faire with direction."

In *Indonesia*, the issuance of Presidential Decree No. 14 has created a more favourable climate for small enterprises. The decree mobilizes various agencies of the government like financial institutions, trade agencies and

regional governments to assist the sector. The establishment of trading houses and mini-industrial estates is also being planned. Production initiation centres will also be set up in certain regions with high potential in terms of raw materials and manpower utilization. The Guidance and Development Project for Small Industries (BIPIK) plays a pivotal role in developing small enterprises in the provinces. Likewise, the Development Centre of Small Industries (PPIK) functions as command posts in the regions.

Industrial areas for small and medium industries have been established in *Korea*. As of 1978, there were 11 industrial areas existing. The local industry promotion law has been promulgated to disperse industries, utilize idle manpower in small towns and achieve equitable income distribution. Likewise, the Industrial Placement Law of 1977 was enacted to promote rational distribution of industries and rational placement of factories. The latest incentive law established is the Small and Medium Industry Promotion Corporation. The Corporation has drawn up plans for the development of industrial areas with provision for common facilities.

Under the *Malaysian* New Economic Policy, small enterprise development has become more relevant and has been recognized as an important vehicle for achieving development objectives. Aware of the problems and potentials of small enterprises, the government established an advisory council for small enterprises and business in the early 1970's under the chairmanship of the special economic adviser to the Prime Minister. The Malaysian Industrial Development Authority (MIDA) provides services like feasibility study preparation, conduct of industrial potential surveys and techno-economic studies. The Standards and Industrial Research Institute of Malaysia (SIRIM), on the other hand, provides technical assistance required by small enterprises such as guidance on the choice of raw materials, industrial research and installation of machinery. The Majlis Amanah Rakyat (MARA) provides management consultancy, training, project identification and credit services. The Malaysian Industrial Development Finance Board, Industrial Consultants (MIDFIC) also carries out market surveys and prepares feasibility studies for new projects and advises entrepreneurs on product diversification and efficiency improvement for a fee. The National Productivity Centre (NPC) provides a wide range of consultancy services as well as training programs.

In the *Philippines* the economic priority plans list down investment areas where government incentives are available to investors. These priority plans include, for 1980, the 13th investment priorities plan (IPP), the 6th public utilities plan (PUPP), the 11th export priorities plan (EPP), and the 3rd agricultural investment priorities plan (AIPP).

Batasang Pambansa 44, otherwise known as an "Act to Promote Investments in Less Developed Areas," seeks to encourage the establishment of industries in less developed areas by granting added incentives on top of those given by the Board of Investment and financial advantages for locating in these preferred areas. For instance, registered enterprises under this law with total assets of less than ₱ 1 million (Approximately US\$ 13,200) are exempted from payment of filing, processing and other fees required by the Board of Investments and the Securities and Exchange Commission.

Through its Small Industries Finance Scheme, *Singapore* gives financial aid to small enterprises in the form of equity participation or as loans at rates lower than those offered to large ones. The National Productivity Board provides consultancy review and training programs to small enterprises. The Jurong Town Corporation has constructed more terrace factory buildings and workshops to match the growing demand for smaller factories. The project was undertaken in line with the government's policy for parallel development of small enterprises with big multinational companies.

In *Sri Lanka*, government agencies promoting and developing small enterprises include the Industrial Development Board (IDB), the Department of Textile Industries and the Department of Small Industries. The IDB is involved in the identification of feasible projects, provides consultancy services and marketing research assistance, and conducts seminars and workshops for small entrepreneurs.

In *Thailand*, the Small Industries Finance Office of the Department of Industrial Promotion (DIP) makes low interest credit facilities available to small enterprises. The Industrial Service Institute renders technical extension and advisory services, trains managers and skilled workers as well as develops prototypes of simple machinery and equipment. It also carries out market surveys and prepares feasibility studies for new projects, as well as conducts industrial potential surveys.

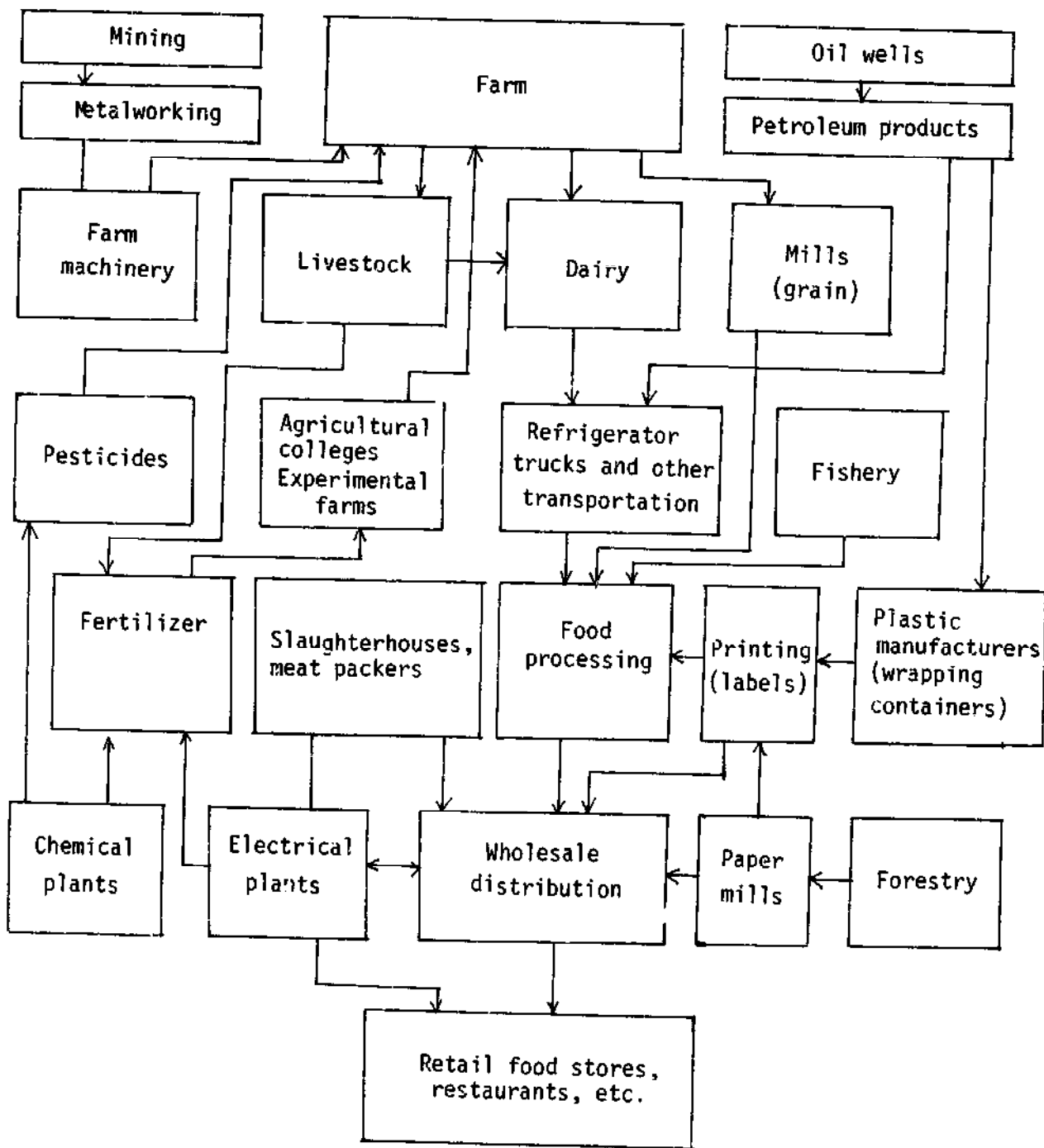
In order to assist small enterprises in marketing their products, particularly handicrafts, the DIP established a handicraft retail centre in Bangkok called "Narayana Phand Handicraft Center". The Export Service Center of the Ministry of Commerce is actively involved in promoting export-oriented enterprises.

It is also very helpful to study the implications of government projects in terms of potential business opportunities for manufacturing goods not previously marketable in the region. On the other hand, the growth of a priority industry almost always creates opportunities to establish others. The identification of these possibilities can be done by analyzing the backward and forward linkages of the industry. This relationship is illustrated in Exhibit 1.

Taking a concrete example, one of the Philippine Government's 11 major industrial projects is integrated pulp and paper. The possible backward linkages that this project creates include wood industries, sugar and fiber. On the other hand, forward linkages include printing and publishing, packaging bags and boxes and corrugated cartons.

Analyzing the political environment is, therefore, a necessary tool in seeking answers to such questions as: What is the government's policy vis-a-vis small enterprises? How actively and sincerely is the government translating this policy in terms of plans, programs and projects? What incentives does the government give to small entrepreneurs? What are its priorities in terms of types of enterprises and areas of the country to be developed?

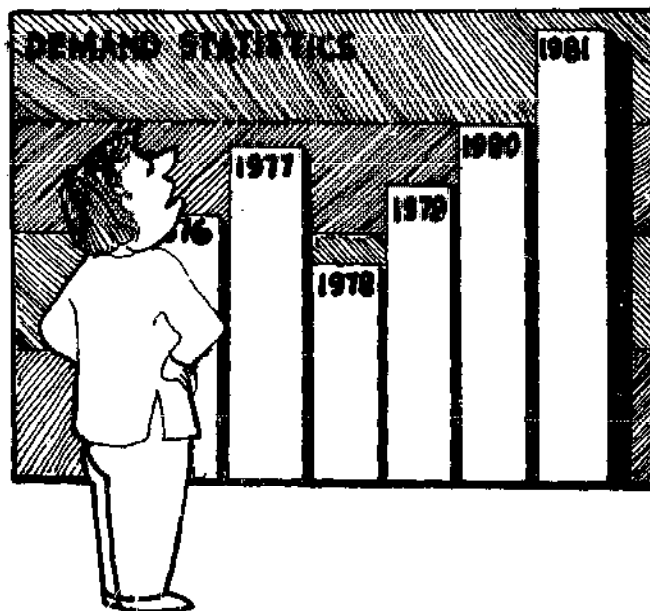
Exhibit 1
THE AGRI-BUSINESS NETWORK



ECONOMIC ENVIRONMENT

A critical appraisal of the general state of the economy and its prospects provides meaningful information such as per capita income, current income, savings, credit availability and income distribution to potential investors. An expanding economy means a concomitant increase in the number and extent of industrial, commercial, agricultural and service facilities. An analysis of the economic environment is particularly helpful in investment decisions, market measurement and especially in forecasting to be able to recognize which type of growth pattern the economy is following.

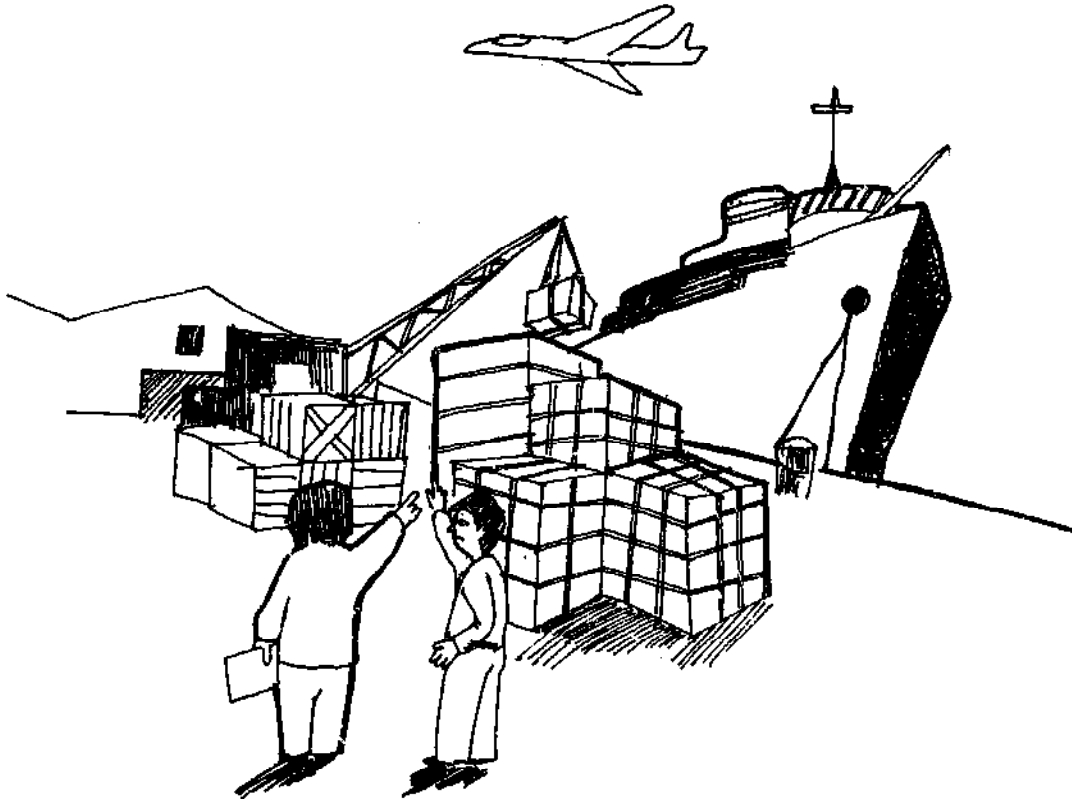
Soriano and Nehrt articulated this point in this manner: "Of particular importance, beyond the growth in GNP, is the population growth. This is usually underestimated, resulting in more consumption, less investment, slower growth, lower per capita income, a sharper, but broader-based pyramid of income distribution. All of these results are critical to the demand for different types of products and services and to many, many other aspects of the environment." ^{2/}



Government statistics on local production, imports and exports and consumption of commodities provide a clue to what may be in demand, in short supply, or in excess in one area. For instance, considered along with local production, imports indicate an existing market, thus suggesting new opportunities to satisfy a proven demand. This is particularly true when, due to higher handling and transport costs, many imported goods can be substituted by local products. Imports here do not only include products coming from other countries but also include commodities flow within the country or even within a region, province or locality. In studying government statistics, it is possible to break down broad classifications in order to get more meaningful individual product data.

^{2/}Soriano and Nehrt, *Business Policy in Asian Context*, p. 15.

Related to the use of government statistics is the identification of business opportunities through the use of industry lists, such as the *International Standard Classification (ISIC) Code* which provides a common classification of industrial activities and is widely used by almost all governments. The code is useful for suggesting ideas and making sure that no possibilities have been overlooked. Exhibit 2 illustrates this point.



Just as a potential investor should study import statistics and its related activities so should he analyze export data and export developments. This is particularly relevant to developing countries because export promotion is a recent thrust of their governments. Export data reveal opportunities for upgrading the quality and nature of existing export products by some improvements or degree of processing. One should examine government publications as well as those of private industry associations on trade opportunities.

It may also be helpful to investigate local materials and resources. The availability, quality and price of certain raw materials (mineral, forest, marine and agriculture) in the region or locality and other production elements (power, skills, climate, etc.) may suggest opportunities for productive activities.

Exhibit 2

Example of the Uses of ISIC Code
As a Checklist for Generating Venture Ideas

- 32 Textile, wearing apparel and leather industries
- 321 Manufacture of textiles
- 3211 Spinning, wearing and finishing textiles
- 32111L Wearing hemp textiles
- 32112R Hand weaving
- 32113 T Cotton textile mills
- 3212 Manufacture of made-up textile goods except wearing apparel
- 32121T Manufacture of house furnishing
- 32122V Textile bags factory
- 32123W Canvas bags, and other canvas product factory
- 3213 Knitting mills
- 3214 Manufacture of carpets and rugs
- 3215 Cordage, rope and twine industries
- 3229 Manufacture of wearing apparel, except footwear
- 323 Manufacture of leather and products of leather, leather substitutes, except footwear and wearing apparel
- 324 Manufacture of footwear, except vulcanized or moulded rubber or plastic footwear.

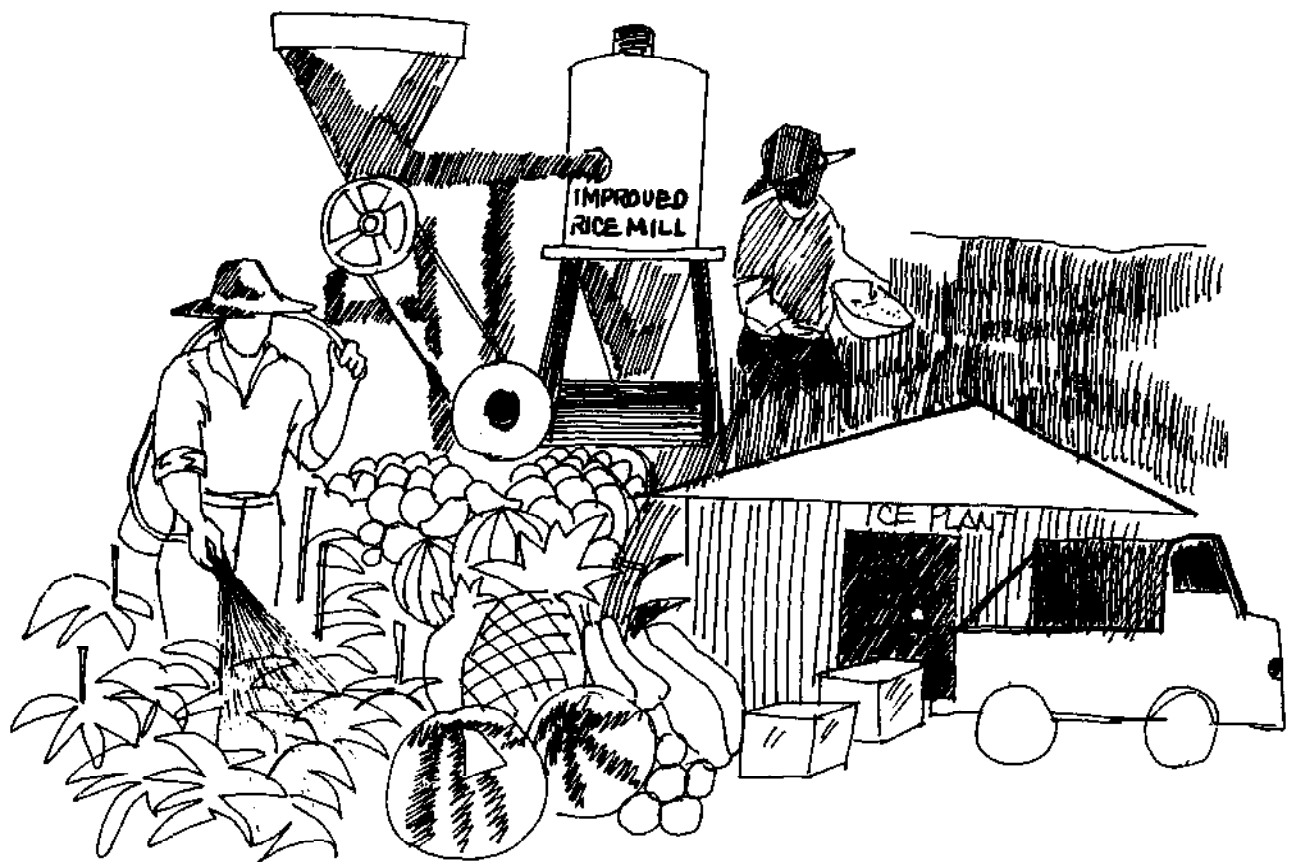
Note: *The first digit denotes the type of economic activity. In this example, the initial digit 3 refers to manufacturing or processing activities.*

By using a checklist on possible small-scale enterprises based on local raw materials, the following opportunities may be mentioned as examples of forest-based industries:

- furniture
- toys
- bamboo products
- chopsticks
- coat hangers
- toothpicks and popsicle sticks
- door and window frames
- wooden handles for tools
- wooden crates and boxes
- alphabet blocks
- rattan products
- wooden electrical accessories

SOCIO-CULTURAL ENVIRONMENT

One way of identifying business opportunities is by analyzing population characteristics, buying habits of the different market segments and their cultural differences or similarities. These various ramifications are illustrated in Exhibit 3.



TECHNOLOGICAL ENVIRONMENT

New developments in science and technology continually create new industrial opportunities. As Kotler aptly puts it "Every new technology may potentially spawn a major industry." Hence, one should continuously examine local raw

Exhibit 3

Major Segmentation Variables and Their Typical Breakdown^{3/}

Geographic:

Country	ex. Philippines
Region	ex. Central Luzon
Province	ex. Bataan
Town	ex. Baliwag

Demographic:

Sex	ex. male, female
Age	ex. under 6, 6-11; 12-17
Family size	ex. 1-2; 3-4; 5+
Family life cycle	ex. young, single; young, married; no children
Income	ex. under \$5,000; \$5,000-\$7,999
Occupation	ex. professional and technical clerical, sales
Education	ex. grade school or less; college graduate
Religion	ex. Catholic, Buddhist, Muslim
Race	ex. White, Oriental
Nationality	ex. American, Chinese, Malaysian
Social Class	ex. lower-lower; upper-lower
Life-style	ex. swinger; status seeker
Personality	ex. compulsive; gregarious
Benefits sought	ex. economy; convenience; prestige
User status	ex. non-user; ex-user; regular user
Usage rate	ex. light user
Loyalty status	ex. none; strong
Readiness stage	ex. unaware; aware; informed
Marketing-factor sensitivity	ex. quality; price; service

^{3/}Kotler, *Marketing Management*, 146

materials and existing products for possible utilization and improvements. Osborn, for instance, came up with a list of questions to stimulate ideas for changing attributes of a certain product. (See Exhibit 4)

Examples of technological advances include a mini-ice plant, seedless watermelon, higher-recovery rice milling machines, more durable farm implements and bio-gas utilization, among others. Many of these scientific advances may be particularly suited in developing countries.

OBTAINING INFORMATION AND ASSISTANCE

IDENTIFYING SOURCES OF INFORMATION

The problem of generating venture ideas can be minimized if the potential investor knows what information he needs and where to find it. Successful generation of ideas for new and improved products, according to the U.S. Small Business Administration, "requires a base of reliable information." More often than not, there is a wealth of information lying around; the problem is identifying who stores or possesses this information resource.

In the Philippines, for instance, the UP Institute for Small-Scale Industries (UP ISSI), under a grant from TECHNUNET ASIA published a *Directory of National Sources of Information for Small-Scale Industries*. The book identifies and locates information centres for small enterprises and catalogues in a systematic manner the information resources, facilities and materials available in each centre.

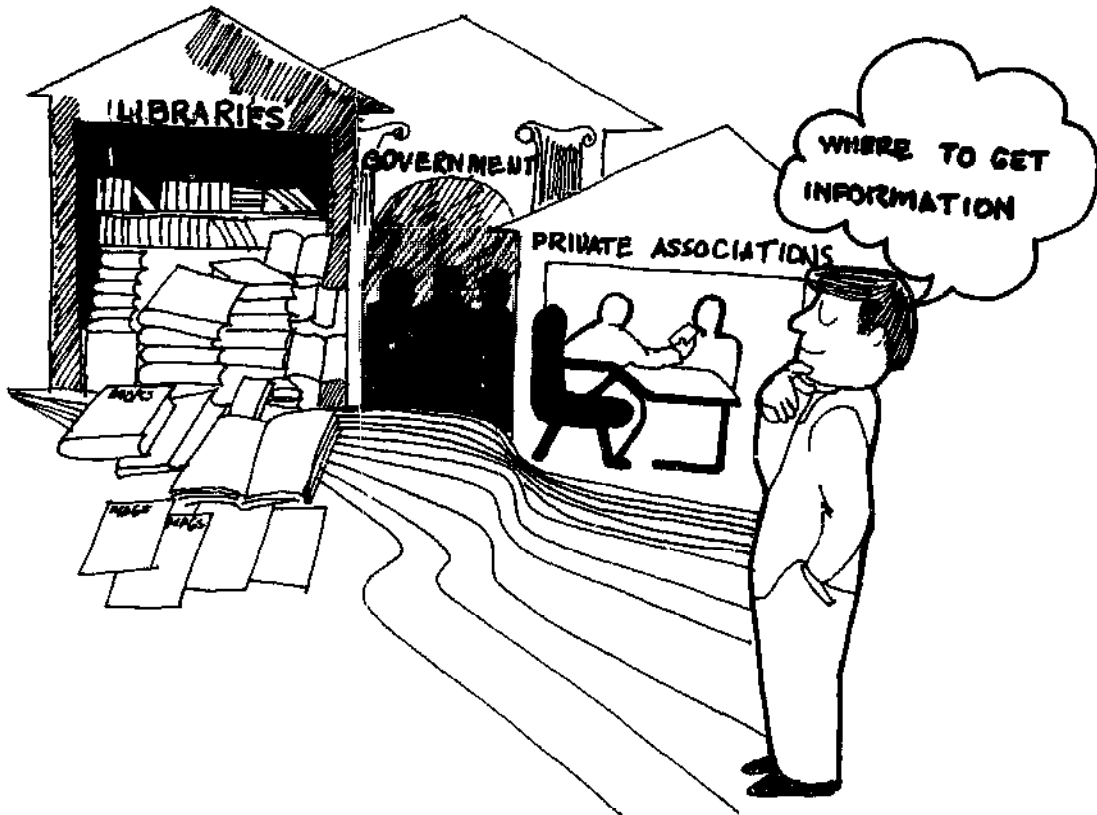


Exhibit 4

Guide Questions to Generate
Product Improvements^{4/}

<u>Questions</u>	<u>Examples</u>
Put to other uses?	Existing: industrial alcohol Potential: fuel alcohol
Adapt?	Existing: denim pants Potential: denim bags
Modify?	Existing: coal Potential: coal briquettes
Magnify?	Existing: cocktail hot dogs Potential: jumbo hot dogs
Substitute?	Existing: tin can, bottles Potential: plastic containers, tetra pack
Minify?	Existing: ice plants Potential: portable mini ice plants
Reserve?	Existing: tools for right-handed users Potential: tools for left handed users
Combine?	Existing: air conditioner, cooler Potential: air conditioner-cooler

^{4/}Osborn, *Applied Imagination*, 286-87

Likewise, the National Science Development Board regularly publishes the results of its completed research and development projects. These cover a wide field ranging from agriculture and natural resources to industry and energy.

Philippine magazines and newspapers, which provide information on business opportunities, new technologies and new products include *The Business Day* (with its regular features of new products/new processes, industry profiles, business and economic trends), *The Export Week* (with concentration on export trends and trade opportunities), the *CSMI* (Council on Small and Medium Industries) *Newsletter* and the *Small Industry Journal* published by the UP ISSI. *Newsweek*, an international news magazine, also has a regular feature on new products and processes.

Of course, the potential investors must not forget the wealth of data available from the various publications and researches of government agencies such as economic planning bodies, statistics offices, government development banks, the central banks, the customs office, the investment promotion bodies and the various ministries.

Research & Development

INCENTIVES FOR AGRICULTURAL VENTURES



Newsweek

INDUSTRIAL INQUIRY SERVICE

SMALL INDUSTRY Journal

March 1980

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Business Day

a vehicle - the farmers association. The organization of farmers into more economically viable associations offers advantages. Having economies by virtue of size and broad coverage these associations are better able to overcome the high costs of agricultural inputs and to perform more efficient management of farm resources. One program of FSDC is their Barangay Irrigators Service Association (BISA) Program. Among its objectives is to improve the agricultural production and marketing capacity of farmers to increase their income. Another is their Technology Program.

Private associations and organizations also publish industry studies and business trends. In the Philippines, for instance, these include the Philippine Chamber of Commerce and Industry (PCCI), the Small Enterprise Research and Development Foundation of the Philippines (SERDEF), Economic Development Foundation (EDF), Private Development Corporation of the Philippines (PDCP) and Sycip Gorres & Velayo, Inc. (SGV), among others.

IDENTIFYING SOURCES OF ASSISTANCE

TECHNONET ASIA participating countries are increasingly aware of the importance of small-scale enterprises to the economy, not merely for their sheer number but more importantly their potential contributions to the economy in terms of employment generation, income distribution and industry dispersal. Thus a host of government programs have been formulated and many governmental and semi-governmental agencies have been mobilized to assist and develop the small enterprise sector. It may be mentioned that many of these agencies are not exclusively engaged in aiding small enterprises but serves other industry sectors as well.

Following are the main agencies rendering assistance which the entrepreneurs may approach:

In Bangladesh

1. Bangladesh Small and Cottage Industries Corporation (BSCIC) - for credit assistance, technical assistance, marketing assistance, training, extension and technical information services.
2. Department of Industries - for policy formulation, guidance on investment laws and opportunities, and registration of the business.
3. Bangladesh Shilpa Bank - for credit facilities.
4. Nationalized Commercial Bank - for credit facilities.
5. Bangladesh Krishi Bank - for credit facilities to agro-based industries.
6. Investment Corporation of Bangladesh - for equity support.
7. Bangladesh Management Development Centre - for management training.
8. Bangladesh Industrial Technical Assistance Centre - for technical assistance and technical training.
9. Institute of Business Administration, University of Dacca - for management training.
10. Technical and Vocational Training Institute - for technical and vocational training.
11. Bangladesh Handloom Board - for assistance to handloom industries.
12. Bangladesh Sericulture Board - for assistance to the silk industries.
13. Bangladesh Handicrafts Marketing Corporation - for marketing assistance of handicrafts.

In Fiji

1. Industrial Promotion Division of the Ministry of Commerce - for training and extension services.
2. Fiji Development Bank - for credit facilities.
3. Business Opportunities and Management Advisory Services of the Ministry of Fijian Affairs - for small industry promotion and advisory services.
4. Fiji Institute of Technology - for technical training.
5. Fiji National Training Council - for skills and management training and advisory services and research assistance.

In Hong Kong

1. Trade, Industry and Customs Department - for the conduct of overseas commercial relations, industrial development and investment promotion.
2. Hong Kong Productivity Centre - for consultancy, research, information dissemination and training on productivity.
3. Hong Kong Export Credit Insurance Corporation - for export credit guarantee.
4. Hong Kong Training Council - for training.
5. Hong Kong Polytechnic - for research and training in technology, science, arts and commerce.

In Indonesia

1. Directorate General of Small Industry of the Ministry of Industry - for technical, managerial and marketing assistance, management training and entrepreneurship development. It has a special program called "BIPIK" (Guidance and Development of Small Industries) with branches in the regions and provinces such as the Development Centre of Small Industries (PPIK) and the Common Service Facilities (CSF).
2. Directorate General of Cooperative - for cooperative development.
3. National Agency for Export Development - for export promotion and marketing.

In Korea

1. Small and Medium Industry Bureau of the Ministry of Commerce and Industry - for policy formulation, promotion, research and management assistance.
2. Korea Rural Industry Development Centre - for research, technical and management assistance.
3. Korea Federation of Small Business - for guidance services to members.
4. Medium Industry Bank - for credit, managerial and technical assistance.
5. Citizens National Bank - for credit facilities.

6. Korean Credit Guarantee Fund - for credit guarantee and extension services.
7. Small and Medium Industry Promotion Corporation - for policy, formulation, coordination and promotion.

In Malaysia

1. Standards and Industrial Research Institute of Malaysia (SIRIM) - for industrial research, product standardization, and technical information dissemination.
2. Malaysia Industrial Development Authority - for entrepreneurial development and information dissemination.
3. Majlis Amanah Rakyat (MARA) - for credit and advisory services to indigenous Malays.
4. National Productivity Centre - for skills and management training and consultancy services.
5. Malaysia Industrial Development Finance Board (MIDF) - for credit and equity provision and technical advice.
6. Credit Guarantee Corporation - for credit guarantees.
7. Bank Pembangunan Malaysia - for credit facilities to indigenous business communities.

In the Philippines

1. Council on Small and Medium Industries - for policy formulation and program coordination.
2. Agri-Business Development Centers of the Ministry of Agriculture - for agri-business enterprises promotion and technical assistance.
3. Development Bank of the Philippines - for financial assistance.
4. Industrial Guarantee and Loan Fund jointly implemented by the Central Bank and the National Economic and Development Authority - for financial assistance.
5. Small Business Advisory Centers of the Ministry of Industry - for consultancy and technical advice.
6. Bureau of Small and Medium Industries of the Ministry of Industry - for program formulation and technical and management assistance.
7. National Manpower and Youth Council - for technical and manpower skills training.
8. National Science Development Board - for technical and scientific research and extension service.

9. UP Institute for Small-Scale Industries - for entrepreneurship development, management training, economic and technological research and industrial information dissemination.
10. Board of Investments of the Ministry of Industry - for priority industries promotion.
11. Development Academy of the Philippines - for productivity training and research, local study mission, industry promotion.
12. Ministry of Natural Resources - for extension and guidance services.

In Singapore

1. The Small Industries Financing Scheme, jointly administered by the Economic Development Board, the Development Bank of Singapore and the Overseas Chinese Banking Corporation, for financial assistance.
2. Economic Development Board - for extension service and manpower training.
3. National Productivity Board - for consultancy service and training on productivity.
4. Jurong Town Corporation - for industrial land development.
5. Singapore Institute of Standards and Industrial Research - for technical and consultancy services.

In Sri Lanka

1. Department of Small Industries of the Ministry of Rural Industrial Development - for training, consultancy and research assistance.
2. Ceylon Institute of Scientific and Industrial Research - for scientific and industrial research.
3. National Engineering Research and Development Centre - for scientific and technical research.
4. Industrial Development Board - for consultancy and technical assistance.
5. National Apprenticeship Board - for vocational training.
6. Bank of Ceylon - for credit assistance and entrepreneurship development.
7. National Institute of Management - for training and consultancy.

In Thailand

1. Small Industry Finance Office - for financial support.
2. Department of Industrial Promotion through the Industrial Service Institute - for technical, management and training support, marketing assistance, entrepreneurship development, research and information dissemination, credit assistance.
3. Board of Investment - for pre-feasibility and industry studies and industrial promotion.
4. Industrial Estate Authority of Thailand - for the planning and administration of industrial estates for industry dispersal.

PROJECT SELECTION

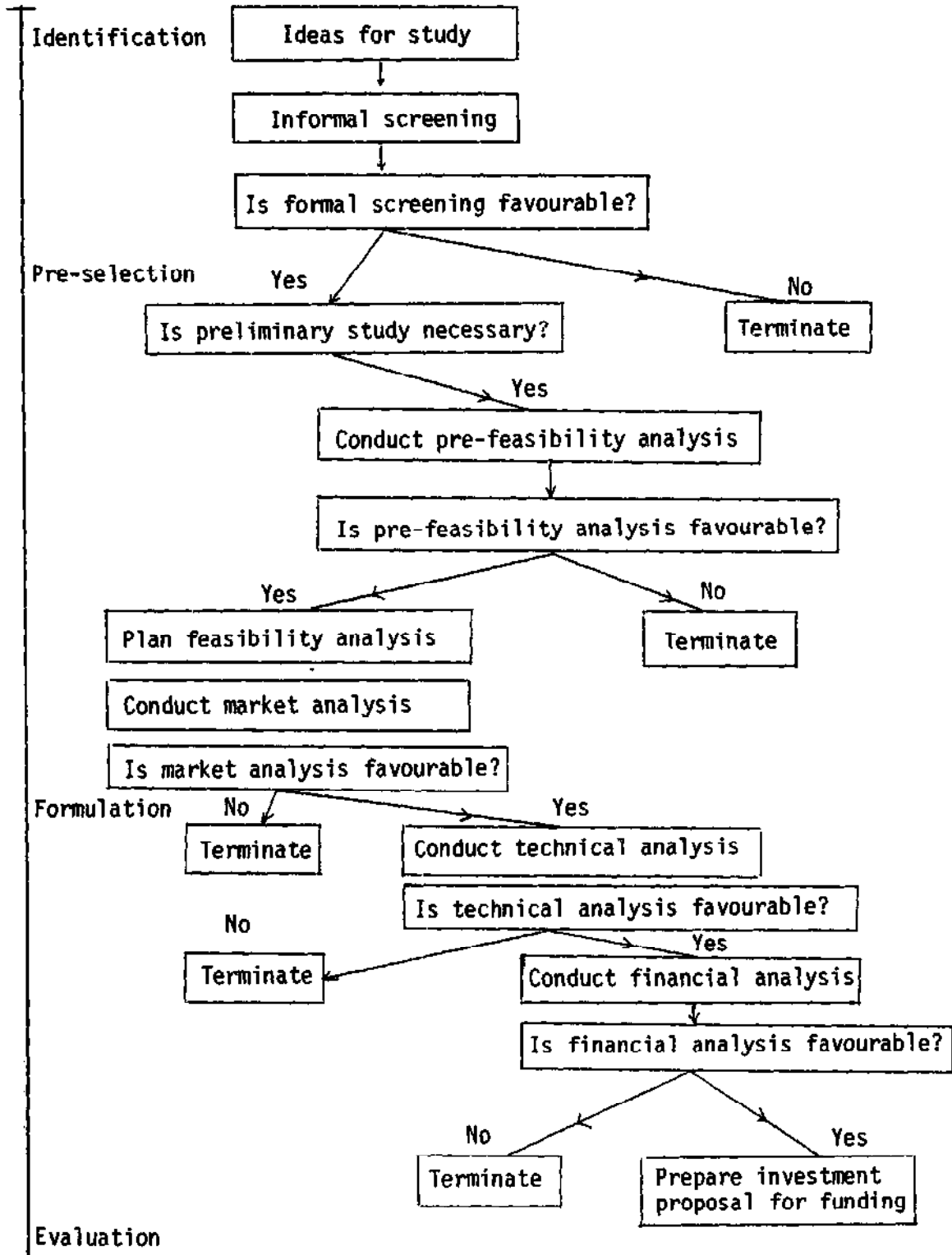
The guidelines discussed in the preceding section can help the would-be entrepreneur generate a wealth of opportunity ideas so that he may not be at a loss as to how to separate the chaff from the grain. In other words you should be able to distinguish between the worthless ideas and the ones that merit further study. It is a fact that many business failures would have been avoided if more project screening and evaluation were made prior to the venture decision. On the other hand, conducting a project study or even just a pre-feasibility study for each of the venture ideas is definitely out of the question. It is both extremely expensive and time-consuming.

There are several simple steps that you can take to screen your venture ideas. But first, it would be helpful for you to understand the whole gamut of project development. Basically, it consists of the following stages:

1. *Identification* - which basically deals with venture idea generation and opportunity identification.
2. *Pre-selection* - which covers the steps to preliminary screen and evaluate the ideas generated in step 1 and includes the pre-feasibility analysis.
3. *Formulation* - which consists of the formal project feasibility study to include market, technical and financial analysis.
4. *Evaluation* - which calls for a decision based on the output of step 3. This may be a go or no-go decision or a decision to modify the study based on certain objectives, criteria or values set by the proponent.

These four stages, with their finer breakdown, are presented in Exhibit 5.

Exhibit 5
Project Development Flow Chart



HOW TO SCREEN YOUR BUSINESS IDEAS

Clifton and Fyffe^{6/} suggests a two-phase process in screening venture ideas.

CHECKLIST

The first is a simple *yes/no* checklist against which you can change the viability of each of your ideas. A *yes* response should denote a *no-go* signal.

- _____ 1. Are there restrictions, monopolies, shortages, or other causes that make any factors of production unavailable at reasonable cost? (Examples are scarce skills, energy, special materials or equipment, processes, and technology).
- _____ 2. Are environmental effects contrary to government regulations or good public relations? (Examples are air, noise and water pollution).
- _____ 3. Are the capital requirements excessive? (If the project requires large amounts of unavailable capital, there is no point to further consideration.)
- _____ 4. Is the project inconsistent with national policies, goals and restrictions? (Examples are import restrictions, foreign exchange requirements, employment generation, industrialization plan).
- _____ 5. Are there factors that preclude effective marketing of the product (e.g., need for an extensive sales and distribution system which you cannot provide?)
- _____ 6. Will the project be labour-intensive?

COMPARATIVE RATING

The second process is called the comparative rating of product ideas. Clifton and Fyffe came up with a scale where each factor can be preliminarily studied and rated from 0-10. This rating scale is presented in Appendix 2. The authors explain that for any given product idea, a rating score for each of the major considerations is obtained by averaging the subfactor ratings. An over-all rating may be calculated as the sum of the average for each major area. It is suggested that if any major consideration has a very low value, the venture idea should be rejected.

^{6/} Ibid, 21-30

THE PRE-FEASIBILITY STUDY

The product ideas that pass the above screening process can be subjected now to pre-feasibility studies. The whole idea of conducting a pre-feasibility study is to determine:

1. Whether the project seems to justify detailed study.
2. Whether the success requirements of the projects are present; e.g., raw materials availability in sufficient quantity, price, quality and the whole year round.
3. An estimate of cost for the detailed study.

The pre-feasibility study should be able to provide enough information to enable you to make a decision on possible alternatives you can take regarding the project, e.g., termination, acceptance or perhaps postponement of the conduct of the feasibility study until certain key environmental factors have changed or when uncertainties have significantly been reduced.

The pre-feasibility study may include some or all of the following elements.^{7/}

Product description. The product's characteristics should be briefly described, along with possible substitutes which exist in the market place. Also, allied products should be identified which can or should be manufactured with the product under study.

Description of market. The present and projected potential market and the competitive nature of the market should be delineated.

- Where is the product now manufactured?
- How many companies exist and how specialized are they?
- What are the national production, imports and exports?
- Are there government contracts or incentives?
- What is the estimated consumption?
- What is the estimated product longevity or future consumption?
- What is the price structure?

Outline of technological variants. The technology choices that exist for the manufacture of the product should be described briefly. Also the key plant location factors should be identified.

^{7/} Ibid, 24-32

- Labour (quantity, special skills).
- Proximity to markets and raw materials.
- Transportation facilities and costs.
- Water (quantity, quality, restriction).
- Others (personal preference, competition, tax considerations, environmental controls, and so on).

Availability of main production factors. Production factors such as raw materials, water, power, fuel and manpower skills should be examined to ensure viability.

Cost estimates. Estimates should be made of the necessary investment costs and costs of operation.

Estimate of profit. The data gathered should include estimates of profits of firms manufacturing similar products or, if the preliminary data are extensive, an actual estimated profit for the project under study.

Other data. In certain cases, the following factors may be the most important in the evaluation of the suitability of a proposed product, especially in the case of the establishment of a new firm.

- Local attitudes toward industry.
- Educational, recreational and civic data.

If the result of the pre-feasibility study is favourable, a plan to conduct a detailed study should now be formulated. You may not have the time nor the expertise to prepare the study. There are consultants and industrial extension officers, both from the government or private consulting organizations, as well as private practitioners who can help you in project feasibility preparation, especially for the purpose of seeking credit from financial institutions. Nevertheless, a thorough understanding of a project study will round off your business knowhow. The following chapter on *Planning and Organizing a Business* discusses the mechanics of project study preparation in depth.

THE PROJECT STUDY

Basically, the project study consists of determining the feasibility of the following aspects:

Management aspects - These include the type of organization, the number and qualifications of persons who will manage the business, as well as the determination of organization structure, key positions and activities.

Marketing aspects - These include determination and quantification of past and future demand and supply, factors affecting demand and supply, nature and extent of competition, projected sales, appropriate pricing and the needed marketing program to enable the business to sell the desired volume of goods at a given price.

Technical aspects - These involve determination of manufacturing process, location analysis, raw materials availability and quality labour and skills requirement, production cost, waste disposal as well as utilities availability.

Financing aspects - These cover determination of project cost, cash requirements and profitability of project.

The project study is almost always demanded by a bank from a loan applicant for evaluation purposes. Thus, it is important that the study should be clearly stated, well-organized and comprehensive. While it is true that a project study is basically a projection, it must, however, be based on logical assumptions. Likewise, it should not mislead the users of the study - the entrepreneur himself, the bank evaluator or the suppliers.

Even if bank requirement dispenses of the need to submit a project study (this is true in the case of the Industrial Guarantee and Loan Fund borrowers as well as loan applications with the Development Bank of the Philippines not exceeding ₱500,000 or approximately US\$ 65,000, or for that matter registration with the Board of Investment in the case of small industries in the Philippines) it is a good practice for an entrepreneur to have a blueprint of his envisioned project by means of a project study.

While there are many formats of a project feasibility study, Appendix 3 presents a format containing the common components of a feasibility study for a manufacturing enterprise.

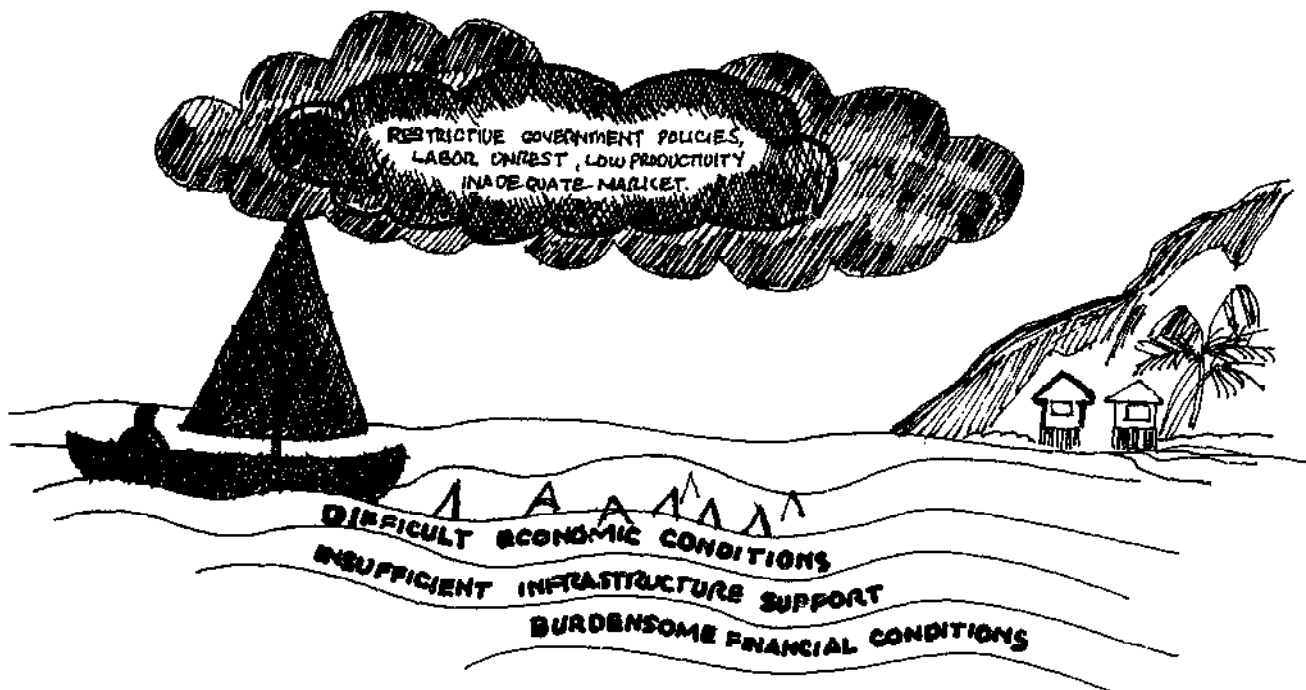
CHAPTER III

PLANNING AND ORGANIZING A BUSINESS

The entrepreneur must plan and organize his project with utmost care and deliberation to ensure its successful implementation. Planning and making decisions on many vital aspects of the business is essentially the entrepreneur's task and should not be delegated. This chapter provides broad guidelines to project planning. The major aspects of a project plan - the market study, the technical study and the financial study - are discussed in some detail. At the planning phase, the entrepreneur must also guard against so-called project "killers" or conditions in the environment that may threaten the success of the project.

Once the project plan is completed, the entrepreneur can proceed to organize his project. Organization includes the choice of legal form, deciding business location, hiring and training personnel, deciding the financial package and other legal aspects of starting a business.

Planning and organizing is one of the first and most crucial decisions that the new entrepreneur makes in his young business career. You must plan and organize your enterprise with utmost care and deliberation. Why not! A new enterprise or new factory requires a huge capital outlay which will often take years and years to recover. The longer the recovery time, the greater will be the exposure to risks. Often, you will consider taking loans to finance your enterprise.



Your failure to plan and organize well may then mean possible loss of valuable personal and business assets which may be held as collaterals by financing institutions. On the other hand, a well-prepared business plan and organization will help generate profitable returns on your investments.

Needless to say, yours is the creative task of translating a project idea into reality. In this, your job approximates that of an artist. But after crystallizing the vision, you must necessarily plan. This is a function that usually cannot be delegated without prejudice to successful implementation of the project. It is you who have to make decisions on such aspects as machinery and equipment selection, product pricing and sources of financing.

PROJECT PLANNING

The size of investment required for a project determines to some extent the amount of time and effort needed to complete the project. A large investment calls for a detailed investigation of the project idea and, inversely, a small investment requires only a general consideration of the critical aspects of the proposal.

Project planning may be facilitated with the use of guidelines to project feasibility study preparation. Remember though that these are rather broad guidelines and you therefore have to make vital judgments when structuring your own project study. Although it may look similar to a hundred others, *your* project, all things considering, is actually unique in itself.

A good study, which is formally known as the project feasibility study, requires:

- . gathering of all facts or opinions about the project.
- . objective scrutiny of these facts and opinions to remove bias.
- . orderly and consistent presentation of final output.

Generally, the feasibility study deals on the following aspects:

Market. This refers to the determination of the type and quantity of product which the enterprise will manufacture and sell.

Production. This aspect covers methods and means of production resulting in conclusions about the type and quantity of equipment, manpower, materials and supplies.

Economic aspects. This is basically an estimate of cost and profitability.

THE PROJECT KILLERS

Before you proceed to undertake a detailed project plan, you must consider that there are social, political, economic and other conditions that may threaten the successful implementation of the project. Being aware of these conditions at the planning phase will enable you to save precious time and effort which would have gone to waste had you rashly embarked on a detailed feasibility study on a project that would have failed anyway.

To illustrate this important point, the following cases in the Philippines are cited:

Case No. 1. An entrepreneur established a small sea side resort complex in an industrial site primarily to cater to domestic tourists. After about a year of profitable operations, a cement plant was established proximate to the seaside resort area. Cement dust polluted the area and the entrepreneur had no choice but to close down the business.

Case No. 2. An entrepreneur, after having been motivated to do business, invested all her savings, plus a substantial amount of borrowed money, in a garment shop in a small community. After several months of operation, she found out that her facilities could produce more than what the market could absorb. This situation led to the inability of the entrepreneur to pay her loan and to the subsequent foreclosure of the mortgaged property.

Evidently, both cases point to some oversight in project planning. In the first case, the entrepreneur could have inquired from the local planning authorities regarding industrial resources of the location and could have been warned that it was potentially a cement quarrying area. In the second case, a more detailed market study and technical analysis could have averted the loss.

Table 1 gives a more detailed illustration of these so-called project "killers."

THE MARKET STUDY

DATA GATHERING

The entrepreneur in a developing country is usually dependent on secondary sources of information in answering the objectives of market analysis (published). In an existing firm, the problem is already partially solved since secondary or historical data may be found from company's files which can be processed to suit the required information. For new ventures, secondary data may be obtained from the sources shown on Table 2. The entrepreneur should use the data with caution if published information is found inaccurate or incomplete.

If information gathered from these sources are inadequate, the entrepreneur may supplement them with primary information through personal interview on an informal basis of those already in business, customers or consumers already using the product or services, and small business consultants. Here, general rather than specific questions are asked to get a feel of the market, specifically regarding market situation and competitive products.

Table 1
Project "Killers"

<u>Element</u>	<u>Conditions</u>
1. Market	<ul style="list-style-type: none">- Regional/rural market too small to absorb the production of a single factory operating at a minimum plant size.- Highly competitive market conditions with the entry of additional projects or difficulty to compete with existing enterprises enjoying entrenched market positions.
2. Expertise	<ul style="list-style-type: none">- Expensive technical expertise or absence of adequate local skills.
3. Foreign currency restrictions	<ul style="list-style-type: none">- Importation of materials, machines and even skilled labour regulated by the government due to the amount of foreign exchange involved.- Uncertainties in currency control, customs regulations and practices particularly with regards to their effect on costs and timing of delivery.
4. Environmental (Infrastructure, economic, social, institutional, industrial)	<ul style="list-style-type: none">- Infrastructure, bad roads, lack of communications and electricity, etc. prohibit the establishment of industries in certain areas.- Inflation that affect prices and cost to the extent that reliable calculations cannot be made.- A banking system that may not be open to financial needs of the industry.- Burdensome tax regulations, trade practices which require that the distribution channels and trade customs should be known in advance in order to arrive at realistic cost estimate.- High minimum wage in the region or area, restrictive plans, actions or measure of local or regional government.

Exhibit 1

Steps in Preparing a Market Plan

Answers to questions:

Market area
Appropriate selling price
Efficient channels of distribution
Immediate sales prospects
Actual buyers
Size, capacity, models, to be sold and how many?

Prepare marketing program (price, product, advertising and promotion, channels of distribution)

Forecast market demand for at least 5 years.

Pricing (historical price, competitors prices, and price trends)

Estimate your market share (consider quality, price, production cost, competitors and location)

Estimate total market demand (relate product with other economic indicators) Example, demand for shock absorbers dependent on car sales.

Classify market - individuals? organization? consumer? industrial, middlemen or government?

SEARCH FOR AN ANALYSIS OF DATA THAT WILL BE USEFUL IN ANSWERING THESE QUESTIONS

QUESTIONS - The foundation of a marketing plan.

Market area
Appropriate selling price
Efficient channels of distribution
Immediate sales prospects
Actual buyers
Size, capacity, models to be sold and how many.

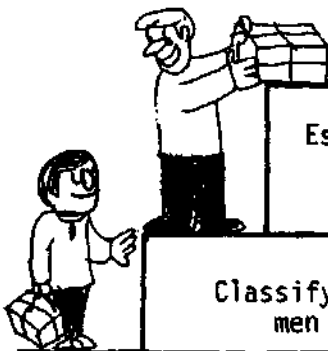


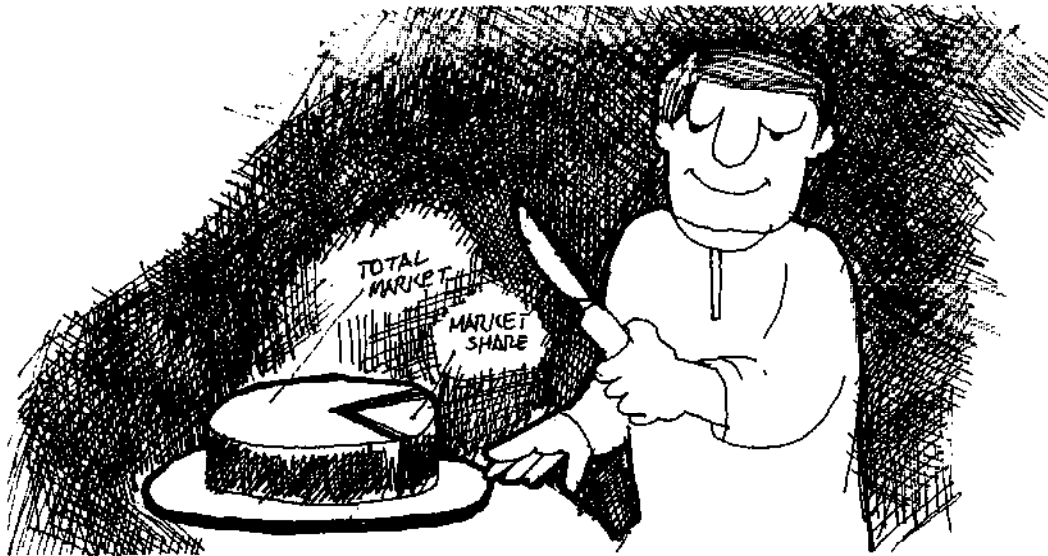
Table 2
Sources and Types of Information

Source of Information	Type of Information Available
1. Government publications like economic development plans, census on population and housing, etc.	Economic data on population and employment, basic data on economic indicators.
Registration data	Exports and imports
2. Buyer's guides/trade directories	Identifying customers and competition, their mailing address, telephone numbers, offices, etc.
3. Publications of trade and professional associations	Price and cost data, current market conditions, competition, warehousing.
4. Research organizations	Special market studies
5. Periodicals	Exports, imports, trade practices, etc.

CLASSIFYING THE MARKET

Before the market share is calculated, it is important that the market is defined since a product may serve only a portion of the whole market. The market is defined in terms of income levels, age and family size for *consumer goods* and by type of users, by industry type, size and allocation for *industrial goods*. Thus, if you manufacture outer garments, the market has to be defined in terms of age categories (infant, children, adult), income levels (lower, middle or upper), etc.

The total demand, therefore, refers to the defined market, identified by specific characteristics and including segment(s) for which the product is most appropriate. Hence, a product has to be defined and suited to its target market segments through its distinct feature, quality or style. (See Exhibit 2)



ESTIMATING DEMAND

An entrepreneur usually perceives a business opportunity when he sees a need for a certain product or service and he thinks that its target users have adequate purchasing power. Even if the demand is currently met, the entrepreneur may foresee growth. Sooner or later, existing plant capacities may not be able to supply the growing demand; thus the entrepreneur decides to build a plant with the intention of capturing a portion of the unfilled demand.

Available data trends in population growth, per capita income or per family income, income distribution and business activities are useful market indicators in determining demand for new products.

MEASURING MARKET SIZE

The total market size represents the total market demand for a product or service. In order to determine the total market size, one has to know the:

- Geographical area - Town, municipality, regional or national, export or domestic markets.

Exhibit 2
Market Classification



Durable



Individuals



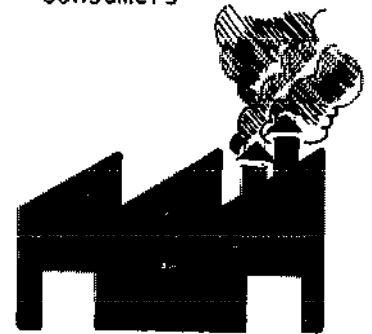
Consumers



Non-durable



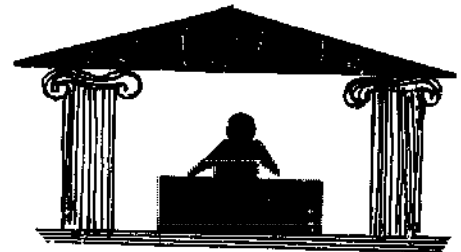
Organizations



Industrial



Middlemen



Government

- Identified target groups of consumers - Housewives, chemical industry, infants, etc.

- Unit measurement and time period covered - Number of dozens, pounds, kilograms, per month, quarter or year.

It would be easier to determine the total market if information on the past and future demand of the product is available from the trade associations or government bureaux. If information is absent, you can estimate the total market by establishing the relationship between the product under study and other items (variable) for which information is available. Thus, the demand for the following items can be derived from the indicators shown:

<u>Product</u>	<u>Indicator of Demand</u>
Shock absorbers	Car production/sales
Garments	Population
Construction materials	Volume of construction in housing or infrastructure

ESTIMATING THE MARKET SHARE

In a competitive situation, a project will be able to capture only a portion of the total market demand. This is commonly known as the market share of the enterprise expressed as a percentage and in terms of monetary value. The market share can be quantified based largely on the analysis of available information. In determining your share of the market, consider product quality, pricing, strategy, production costs, competition, etc. Since this is sometimes difficult to determine, the entrepreneur, after a thorough assessment of his market potential may set his own sales target in terms of volume and amount for a certain period of time, considering technical as well as financial limitations. To strengthen his "feel" of market share, he can secure letters of intent to buy or endorsements of his product from reputable traders and consumers.

Finally, as an alternative to determine the extent of market share and avoid unnecessary heavy investments, market tests may be conducted. This, however, must be well-planned, preferably with your small business adviser, to derive best results from instruments and as a sound basis for a decision to proceed with production.

PRICING

Price is an important element in determining market demand and your firm's share of the market. Demand for consumer goods may be increased through price reductions, whereas a similar situation may not necessarily happen for industrial goods. It might be useful to determine the relationship between price and demand but the investment in time and money may not justify the effort.

For small and medium enterprises, it is necessary to determine current and historical prices of the product, competitors prices and price trends. From this information, a pricing scheme for the product(s) to be launched may be set which will be both competitive and profitable.

SALES FORECASTING

The final output of the market study is a sales forecast to include quantity and sales value for a given period of time.

Two approaches are commonly used in making sales forecast.

1. "Gut feel" forecasting or judgment forecast

This technique is based on intuitive reasoning and subjective evaluation. The result arrived at in this type of forecast may not be accurate inasmuch as the entrepreneur may not possess sufficient experience with or knowledge of a product. However, this technique is used in combination with the other mathematical approaches.

2. Statistical method

This technique is used only when historical (past) data for the product are available. Time series forecasting, one of the statistical methods, considers past and future demand of product as related to time rather than affected by price of the product and income changes of consumers. To illustrate this technique, a simple example is shown below:

Demand for shock absorbers in 1976	10,000 units
Demand for shock absorbers in 1980	<u>18,000 units</u>
Average increase in five years	8,000 units
Average annual increase	1,600 units

The projected demand for the next three years with the use of the above data is as follows:

1981	-	8,000 plus 1,600	or	9,600 units
1982	-	9,600 plus 1,600	or	11,200 units
1983	-	11,200 plus 1,600	or	12,400 units

THE MARKETING PROGRAM

The marketing plan must include the sales targets for a specified period of time as well as a commitment of resources for advertising and promotion and other selling costs to achieve the sales targets. To evaluate sales efforts, the sales plan should provide data on sales in terms of units, money values, by-product lines, geographical areas and quarterly targets. The budget for advertising and promotion which is necessary to support sales target provides for the costs of the media used. It will be useful to observe and study industry practices as far as the extent of expenditures on advertising and promotion in relation to sales is concerned.

Other costs, such as sales commissions, distribution costs and packaging costs or costs that vary directly with the volume of sales, are calculated based on the target sales. Fixed expenses, such as salesmen's salaries, travelling and entertainment, are likewise budgeted. The sales plan which is the culmination of the market study is then used as the basis for the preparation of the manufacturing plan.

From the point of view of lenders, investors and other parties interested in your project, the marketing program can be strengthened with the information on possible marketing contracts with the government or identified sub-contractors in the industry, as well as written inquiries about your products or services from importers, traders and other large group of consumers.

THE TECHNICAL STUDY

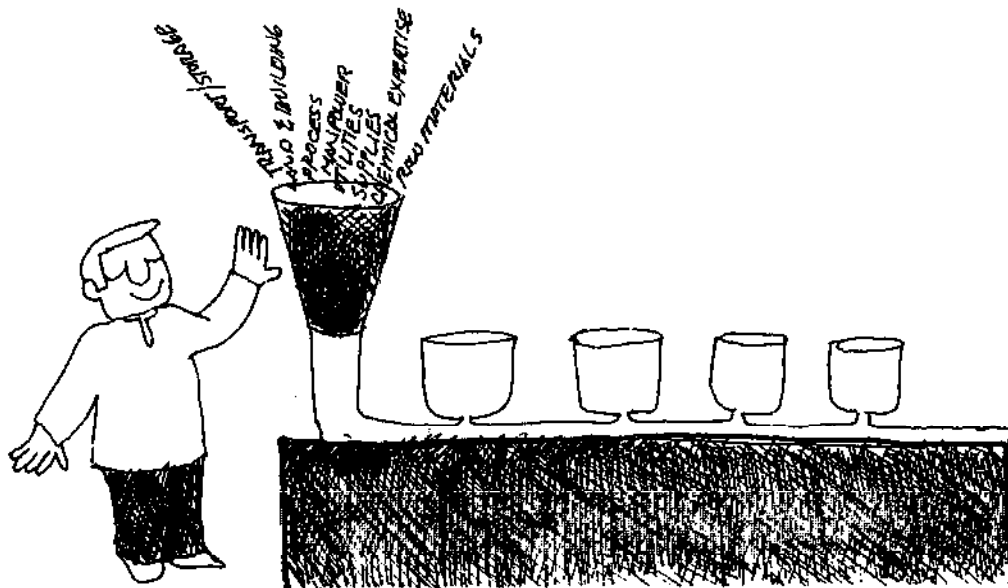
PRODUCT DESCRIPTION

An entrepreneur should define product specifications in terms of:

1. Type and quality of materials required
2. Form and structure of its components
3. Form and structure of the final product with indications of quality level
4. Operations/processes required to manufacture the product.

The entrepreneur, if not technically competent, needs a technical man who can perform the following tasks:

1. Choose appropriate raw materials
2. Define the process and operations
3. Select adequate equipment and machinery
4. Specify the skills needed for production



To avoid the unnecessary costs of hiring consultants or permanent staff to carry out these functions during the planning stage, technical expertise may be sought from the following sources:

1. Existing manufacturers in the domestic market or from abroad
2. Raw material supplier
3. Equipment manufacturer
4. Industrial consultants
5. Publications

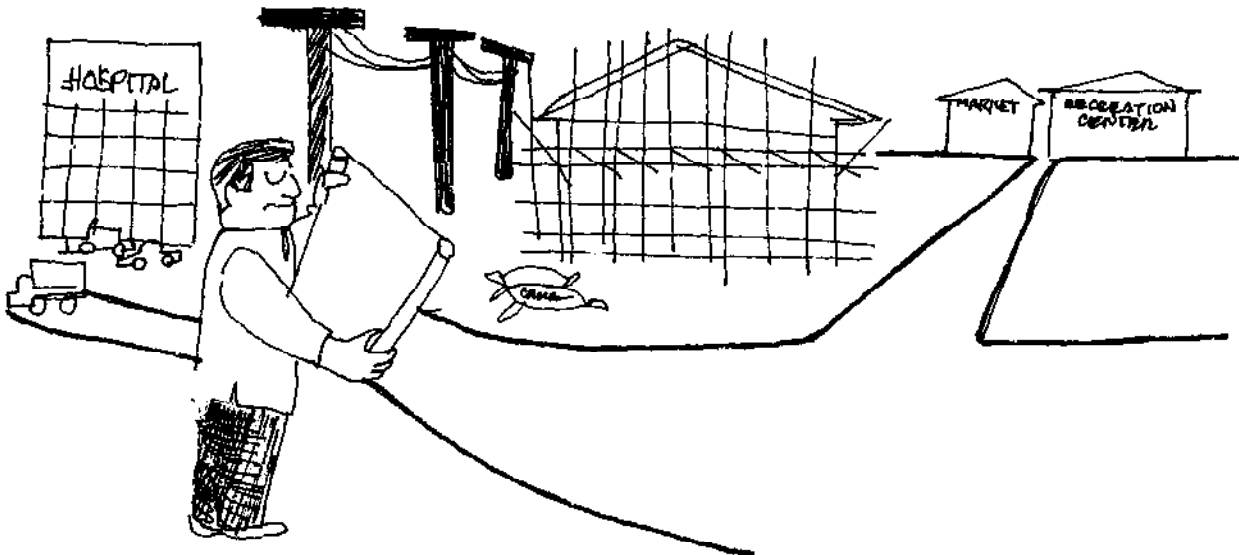
PROCESS DESCRIPTION

Assuming that the appropriate manufacturing process information is available, the next step is to specify and quantify the facilities required by drawing up a process flow chart indicating the individual operations to be performed with specifications as to:

1. Type and capacity of machinery and equipment to be chosen
2. Type and number of operators, and auxiliary personnel
3. Type and quantity of raw materials, supplies and components to be used

Along with process selection, the option of sub-contracting a part or process to other industries have to be investigated since this may be economically and technically viable.

It is also advisable to determine expected bottlenecks in operations as well as suggest measures to overcome them especially with regard to machinery which is costly or difficult to obtain, maintain or operate; special skills required, and essential supplies.



Finally, the factory design can be determined on the basis of manufacturing requirements, type, size and preferred site of building. Some considerations in the selection of factory site include the definite period the factory can be expected to work at normal level of output, possibility and requirement for expansion and its flexibility with respect to manufacturing of other products.

PRODUCTION FACTORS

Fixed assets

Land and building are the primary fixed assets required in starting an enterprise. A schematic layout or general factory plan must be drawn up. The total area requirement for land and building, costs of construction as well as the price of land must be assessed. In selecting the plant site, the entrepreneur must consider the accessibility of the area to transport facilities, availability of utilities and other public services as well as legal limitations (safety pollution, etc.).

The complement of machinery and equipment on the other hand, is based on the process selected. Its choice, however, will depend on the availability, performance, characteristics and capacity, purchase price, operating requirements and costs, and after-sales service by supplier.

Ancillary installations and services have to be specified such as installation of utilities, storage and transport facilities, and other general factory out-fits (benches, racks, etc.).

It is advisable to consider the option to acquire these fixed assets through lease-purchase scheme. The major advantage of this alternative is it lessens the amount of financing required. Cost implications should be studied in whatever alternative the acquisition of equipment is made.

Manpower

Total manpower complement comprises the management, supervisory staff, technical staff, and skilled and unskilled labour. The entrepreneur must determine whether the specified labour force is available and at what costs. The production process chosen determines the skilled and unskilled labour required as well as the supervisory positions in the factory area. For the other positions, in management, it is necessary to draw up an organization chart to indicate the key function to be filled in production, marketing, accounting and finance and general services.

There are two primary considerations in planning the labour complement: its availability and the adaptability of the workers to the job assigned. Supply of industrial workers in a predominantly agricultural area is sometimes scarce and it may be necessary to "import" workers with desired skills from another region. Keeping them on the job is another issue. In both cases, it may be costly to secure the required skills and keep the right man in the factory.

For some jobs of more specialized nature, a comprehensive program for development of skills is necessary. Training is a safe alternative to hasten the adaptation of recruited labour to the specified jobs. It may be useful at this stage for the entrepreneur to make an inventory of existing training institutions in the region where his employees can be trained.

It is wise to provide for a budget for the recruitment and training of manpower.

Raw materials and supplies

These resources can be specified once the type and quality of the product to be produced have been determined. Some materials need detailed specifications as to quantity and costs in order to arrive at a reliable cost and profit calculation.

Specifications of materials needed include quality and quantity required per period for each type, storability, transferability and seasonality of supply.

If the raw materials and supplies are available, these should be available in the right quality and size, at an acceptable price, and in quantities and at intervals attuned to the need for continuity of supply.

As important as availability, the type of supplies of the raw materials and the suppliers must be known. Prices and conditions of delivery as well as reputation of large industrial suppliers should be obtained. Other types of suppliers have to be investigated to find out if their facilities in terms of knowhow, equipment and management are adequate.

For small-scale ventures, suppliers usually are wholesalers, commission agents, sales representatives and retailers. Regardless of the supply source, the aspect of service, delivery and payment conditions must be assessed. You have to consider your purchasing policies inasmuch as this will have an effect on costs. Study also availment of credit, discount and bulk purchases.

If imported materials are required, you have to look into the existing import and currency restrictions of the country. Awareness of the factors that impede the regular flow of imported goods will be helpful.

As a last consideration, you must take into account costs of transportation and keeping inventories. You have to transport materials, you must gather information on the means of transportation, its schedule and costs, as well as risks of damage and theft. Cost of keeping inventories pertain to the cost of storage facilities, waste and deterioration, risk of damage, fire and theft, risk of price fluctuations, and cost of capital invested in stocks. Here, you must also define type of storage rooms and equipment.

FINANCIAL STUDY

The complexity of the financial study depends largely on the size of the investment involved. Before committing your resources and energy to a project, you undoubtedly, need to know whether proportionate financial returns are forthcoming. In other words, you must be satisfied that your project shows an acceptable level of commercial profitability.

To illustrate clearly the process of preparing the financial feasibility study, let us look at the following example of a garment factory which we will call the "High Fashion Company" or HFC.*

HFC manufactures ladies' blouses, men's shorts and ladies' and men's pants.

THE SALES SCHEDULE

The sales plans of HFC as shown on the next page represents the output of market analysis and is used as a basis in building up the financial information. Plans for succeeding years should also be estimated and presented on a similar basis:

*/ All figures are in US \$

High Fashion Company
Sales Plan

<u>Items</u>	<u>Quantity</u>	<u>Price Dozen (US\$)</u>	<u>Sales (US\$)</u>
Ladies' blouses	825	36.16	29,832
Men's pants	825	21.12	17,424
Ladies' pants	825	22.94	18,926
Men's pants	<u>825</u>	26.78	<u>22,094</u>
Total	3,300		\$88,276

The company has adopted a simple marketing strategy to generate the projected level of sales. Its produce will be marketed in an area with a total population of 500,000. The use of high speed sewing machines, highly trained labour force, and strict supervision will enable the company to sell quality garment at competitive price. The company shall undertake personal selling through presentation of samples to wholesalers in the area and participate in trade exhibits and fairs as initial sales promotion activities. These promotional efforts are expected to cost 10% of total sales plus a 2-1/2% commission to hired salespeople. A delivery vehicle shall be provided for.

THE PRODUCTION SCHEDULE

The production schedule can be devised to meet the sales plan with adequate information on the level of finished good. For HFC one month finished goods inventory is anticipated.

High Fashion Company
Production Schedule

Year 1

<u>Item</u>	<u>Dozen</u>
Ladies' blouses	900
Men's shirts	900
Ladies' pants	900
Men's pants	<u>900</u>
Total	3,600

PRODUCTION COSTS

Direct material costs

Direct materials are costs or input which comprise the integral part of the finished product. Minor materials may be charged to supplies or indirect materials, rather than direct materials, because it is impractical to trace these items to a specific unit of product. In the case of HFC, the direct material costs are estimated as follows:

High Fashion Company
Direct Materials
Year 1

<u>Product</u>	<u>Fabric</u>	<u>Cost/Yard</u>	<u>Use Garment</u>	<u>Yard Required</u>	<u>Total Cost</u>
Ladies' blouses	Knitted fabric 72" wide	2.05	32"	9,600	\$ 19,680
Men's shirts	35% cotton 65% polyester blend	.59	63"	18,900	11,151
Ladies' pants	Light denim	.69	63"	18,900	13,041
Men's pants	Light denim	.69	63"	18,900	<u>13,041</u>
Total raw materials per year					\$ <u>56,913</u>
Raw material inventory fund (1 month)					\$ <u>4,743</u>

From the direct materials used, raw material inventory requirement may now be determined. It is important to determine inventory level since: (1) it is usually impossible to obtain delivery that exactly coincides with production needs; (2) savings can be obtained by purchasing economic lot quantities; and (3) it is sometimes desirable to hold stocks in anticipation of price increases.

Direct Labour

All labour costs which are obviously related to and easily traceable to specific products such as labour of machine operators and assemblers, fall under this category. Other labour costs such as payroll for material handlers, janitors and plant security guard are considered as indirect labour because of the difficulty or impracticability of tracing such items to specific physical units. For HFC, we assume the following labour complement is necessary at 25 working days per month:

High Fashion Company
Labour Cost Schedule

	<u>Monthly Rate</u>	<u>Annual Cost</u>
1 Designer-pattern maker/cutter	\$ 100	\$ 1,200
6 Straight-needle sewer	47.50	3,420
2 Over lock stitch sewer	47.50	2,374
1 Buttonholer and chainstock sewer	10	720
1 Presser and sacker	60	72
1 Button sewer, inspector and trimmer	60	<u>72</u>
Total		\$ <u>9,874</u>

Related fringe benefits costs like those for social security, vacation and sick leaves, and bonuses may be estimated as a percentage of the total direct labour costs, in this case about 20% or \$1,975.

Manufacturing Expenses

To simplify cost classification, all other manufacturing costs that can neither be classified as direct materials nor direct labour may be included in the factory overhead. For HFC, the factory expenses may be classified as follows:

Indirect Labour

Production supervisor \$133/month x 12 months	=	\$ 1,596
Stock-clerk/utilitymen \$60 x 12 months	=	<u>720</u>
		\$ <u>2,316</u>

Factory supplies

This item of cost consists of packaging materials, threads, zippers, etc., computed as follows:

Polybag	-	\$ 345
Boxes	-	576
Thread	-	133
Zipper	-	864
Buttons	-	<u>347</u>
Total		\$ <u>2,265</u>

Although some of these items may be classified as part of direct materials, in this illustration it is assumed as part of factory supplies.

Depreciation and Maintenance Cost

Based on the machinery and equipment used, depreciation cost may be computed on a straight-line basis. For HFC, the machinery and equipment with its corresponding costs are shown below:

<u>Quantity</u>	<u>Item</u>	<u>Cost</u>
1	Electric cloth cutting machine 7"	\$ 1,120
6	Lockstitch single needle straight sewer \$500 each	3,000
2	Overlockstitch machine	1,573
1	Button-holing machine	2,029
1	Feedoff arm machine-two needle double stitch	1,284
1	A/B steam iron	288
2	Electric ceiling fan	
11	Work basket	
1	Cutting table 16" x 48" x 36"	
4	Bend - for storage of cutwork	
3	Small table for bundling	
15	Working tables	600
	Electrical works	600
	Tools and spare parts	<u>100</u>
	Total	\$ <u>10,594</u>
	Depreciation (annually for 10 years)	\$ 1,059
	Maintenance (assumed at 5% of total)	530

Utilities

From the information of KWH consumption of the machinery and equipment complement and lighting requirements, the electrical costs can be computed as follows :

	<u>Per Month</u>	<u>Per Annum</u>
<u>Demand charge</u> (Initial charges based on total HP of machines used)		
11 machines (1.33 hp. each)	\$ 39.06	\$ 469
Energy charge (Rate based on actual energy used)		
11 industrial machines (109.1 KWH/day)		
12 40W flourescent bulb 4.8 KWH/day or 2,847.5 KWH/Month		
Computation:		
1000 KWH each at .05 = 50		
1847.5 KWH each at .04 = 74	124	<u>1,488</u>
Annual energy consumption costs		<u>\$1,957</u>

There may be other costs aside from the ones previously mentioned and these costs should be included to avoid all understatement of costs.

Other factory overhead costs for HFC are:

	Monthly	Annual
Factory rental	\$ 53	\$ 636
Factory insurance	27	<u>324</u>
		\$ <u>960</u>

UNIT COST OF PRODUCTION

From the financial information so far computed, the average unit cost of production can be computed as follows based on total production of 3,600 dozens:

	<u>Annual Cost</u>	<u>Ave. Unit Cost</u>
Direct material	\$ 56,193	\$ 15.81
Direct labour	9,875	2.74
Manufacturing overhead		
Indirect labour	2,316	
Factory supplies	2,265	
Depreciation	1,059	
Maintenance	530	
Utilities	1,957	
Rent	636	
Miscellaneous (10% of above)	<u>909</u>	
Sub-total	\$ 9,996	2.78
Total production cost	\$ <u>76,784</u>	
Average cost per dozen		\$ <u>21.33</u>

Inasmuch as the product cost consists of direct material, direct labour, and overhead, the cost of finished product can now be computed as follows:

Cost of finished goods: 300 dozens @ \$21.33 = \$6,399

GENERAL, SALES AND ADMINISTRATIVE COST

To complete the cost structure in operating HFC, the cost related to administration and distribution are computed as follows:

Sales Expenses

Promotion - 1% of sales	\$ 883
Commission - 2-1/2% of sales	1,103

Salaries and wages

General-manager	\$200/month	2,400
2 Secretary-bookkeeper	\$150/month	1,800

Travelling expenses	1,600
Organization expenses	1,000
Office rental	480
Telephone and telegraph	100
Gas and oil	1,600
Social security and fringe benefits	720
Taxes and license	1,000
Depreciation - office equipment	<u>250</u>

Total operating expenses	\$ <u>12,336</u>
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TOTAL PROJECT COST

Finally, an estimate of the total project cost must be made. This is simply a statement that answers the question: "How much will it cost to start this business?" Watch out against either pitfall of understating or overestimating your project cost. If you understate your cost, you may later encounter difficulties in operating as planned. An overstatement, on the other hand, results in inefficient use of funds. The total project capital expenditure consists of the following: *fixed assets, working capital and organization cost.*

Fixed assets, or fixed investments, of the project is the cost of land and improvements, buildings and site facilities and machinery, equipment and furnitures required by the enterprise. Included here are start-up losses, material charges, equipment installation cost, and all expenses necessary to prepare the land as an industrial site.

If certain equipment have to be imported, the amount of foreign exchange needed should be specified.

Sometimes it is advisable from a financing point of view to rent rather than to buy, land and building. This is also true of machinery and equipment that may be obtained on a lease or lease-purchase arrangement.

Working capital requirements need to be studied carefully inasmuch as the lack of it is a common cause of business failure. Working capital requirements of a new enterprise include the following:

1. Minimum cash balance for cash manufacturing, operating expenses and debt-service.
2. Inventories - Raw materials, finished goods and work-in process..
3. Trade account receivable
4. Pre-paid expenses

For inventories, the level of working capital requirement will depend on turn-over rates, seasonal influences, delivery lead time, uncertainties in delivery, high processing and commercial stock requirements.

The amount of account receivable will depend on the amount and terms of credit extended to customers and company's collection policy.

Organization costs are incurred in making preliminary investigations and organizing or forming the company. These include costs of preparing the project feasibility study, legal fees, expenses for obtaining financing, etc. Organization costs may be amortized over a five-year period.

Going back to our example, the project costs are:

Fixed asset:

Land (leased)		
Building (leased)		
Machinery, equipment and installation		
Tools and spare parts	\$	10,594
Office equipment		<u>2,500</u>
Total fixed asset	\$	<u>13,094</u>

Working capital

Account receivable (one month)		7,356
Minimum cash balance (expenses for one month)		
Payroll	\$	822
Manufacturing expenses		745
Operating expenses		<u>1,007</u>
		2,574
Raw materials inventory		4,743
Finished goods inventory		<u>6,399</u>
Total working capital		<u>21,072</u>

<i>Organization costs</i>	<u>\$ 1,000</u>
Total profit costs	<u><u>\$35,166</u></u>

SOURCES OF FINANCING

Once the total project cost has been estimated, the next step is to determine your financing needs and to look for sources of financing.

As a small entrepreneur, chances are you cannot provide all the funds that you need. You must then look to external sources - notably government financial institutions and commercial banks. In many developing countries, there are special credit schemes for small industries offering easier terms and conditions.

In making an industrial loan, be sure to consider debt-equity requirements, interest and financing charges, mode of payment, collateral requirements and term of loan, before deciding to apply for credit financing.

PRO-FORMA STATEMENTS

From the information compiled so far for HFC, the pro-forma or projected statements can be constructed. There are three basic pro-forma statements, namely:

Pro-forma profit and loss statement

This forecast shows the profitability of the project at a certain volume of production. The net profit figure will interest both owners and creditors since any residual amount is distributed partly as dividends and partly for debt-service.

Shown on the following page is the profit and loss statement of HFC for the first year of operation.

High Fashion Company
Pro-forma Profit-Loss Statement

Sales		\$ 88,276
Less: Cost of goods sold		
Direct material useu	\$ 56,913	
Direct labour	9,875	
Factory overhead	<u>9,996</u>	
Total cost of goods manufactured	76,784	
Add: Finished goods, beginning inventory	-	
Less: Finished goods, ending inventory	6,399	<u>70,385</u>
Gross income		\$ 17,891
Less: Operating expenses		<u>12,336</u>
Net income before taxes and interest charges		\$ <u><u>5,555</u></u>

Pro-forma cash flow statement

You will, of course, be interested in the cash generation capacity of the proposed venture. You will want to find out the amount of cash necessary to start the enterprise and how soon it can be recovered. On the other hand, creditors in general, will want to see the liquidity picture of the enterprise in the long run.

Sources and uses of cash are the primary features of a cash flow statement, with the bottom line figure showing the cumulative cash balances. Shown in the succeeding page is the cash flow statement of HFC. Please take note that the list of cash inflow and outflow is by no means complete.

High Fashion Company
Cash Flow Statement

	<u>Pre-operating Period</u>	
Estimated cash inflow		
Loan - long term	\$ 28,133	
Cash sales		80,920
Equity contribution (assuming 20% of project cost)	7,033	
Collection of accounts receivable (1 month)		-
	<hr/>	<hr/>
Total estimated cash inflow	\$ 35,166	\$ 80,920
Less: Estimated cash outflow		
Organization expense	1,000	
Fixed asset acquisition	13,094	
Purchases of raw materials		56,518
Payroll		9,875
Manufacturing expenses (net of depreciation)		8,937
Operating expenses (net of depreciation and excluding organization expense)		<u>11,086</u>
Total estimated cash outflow	14,094	86,416
Net cash flow	21,072	
Add: Cash balance beginning	<hr/>	<u>21,072</u>
Cash Balance ending	\$ <u>21,072</u>	\$ <u>15,576</u>

Pro-forma balance sheet

The balance sheet contains the statement of resources of the proposed venture at a given period of time. Assets, liabilities and equities are detailed in this statement. HFC has the following pro-forma balance sheet for its first year of operation.

High Fashion Company
Balance Sheet

ASSETS

Current Assets

Cash	\$	15,576
Accounts receivable		7,356
Raw material inventory		4,743
Finished goods inventory		<u>6,399</u>

Total Current Assets \$ 33,074

Fixed assets 13,094

Less Depreciation 1,309

Total Assets \$ 45,859

LIABILITIES

Long term loan	\$	28,133
Accounts payable		5,138
Capital		7,033
Net income		<u>5,555</u>

Total Liabilities 12,588

Total Liabilities and Capital \$ 45,859

It is important to realize that in preparing financial statements, there are conditions which cannot be pre-determined with certainty. In constructing the pro-forma statements, you should always state your assumptions based on your experiences.

Assumptions are statements about future business conditions that affect the outcome of financial operations. For HFC, the assumptions are as follows:

1. Long-term loss represents 80% of the total project cost of \$35,166. Equity represents 20% of the total.
2. Cash sales is assumed to be equivalent to 11 month sales. Accounts receivable then represent about one month of the annual sales.
3. Accountspayable is assumed to be at one month of raw material requirement or 30 days.
4. All other expenses are to be paid for in cash.

There are other future financial conditions which should be stated for the benefit of the third party (lender, venture capitalist , etc.) to enable him to understand the project plan.

ESCALATION RATES

For our example, the HFC, we made financial projections for only one year. Project plans require a period longer than one year at least, a period long enough to show full amortization of debt, if long-term obligation is contracted. In continuing the first year projection to the desired number of years, some cost factors would rise in direct proportion to sales. We call these variable costs. Other costs, and these would remain static, are known as fixed costs. Regardless of the nature of costs, the inflation factor should be considered in making the projection of future periods. The inflation factor may be used in the escalation rate in extending costs to future periods.

FINANCIAL EVALUATION

One of the criteria in judging the feasibility of a project is that the financial prospects and risks are acceptable to all those who will invest in the project. To determine that this criterion is attained, the results of the financial study must be analyzed in terms of liquidity, profitability and stability factors.

Financial ratios which show the relationship between various items or groups of items on the balance sheet and income statement will provide information regarding the competitiveness of the project with similar business establishments. Tests of liquidity, profitability and stability are derived from the pro-forma statements.

On the other hand, it is also useful to determine the sensitivity of the project's profit to changes in cost, production volume or price. The technique utilized in this case is break-even analysis. The minimum level of sales to keep the business going is determined through the use of this analysis.

Chapter VIII on "How to Analyze your Small Enterprise" will provide you with the mechanics of these evaluation techniques.

ORGANIZING A BUSINESS

So you have completed your project plans. As a result, you are convinced, more than ever, that you have a viable project that will not only satisfy your creative drive but will give you financial returns as well. Well, then, you are now ready to translate your plans into a "live", pulsating enterprise. In other words, you are about to organize your business. Organization involves choice of appropriate legal form of business, finding a suitable location, hiring and training of personnel, deciding the financial package and other legal aspects of starting the business.

CHOOSING THE LEGAL FORM

The governments of developing countries provide several organizational alternatives or legal forms. From these, you may select the one that can best meet the needs of your business. It is advisable, however, to consult a lawyer before embarking on a decision as to legal form of organization. The major factors that are considered include tax implications, integrity of partners and extent of personal liability. Shown below are the three most common forms of business organizations.^{1/}

SOLE PROPRIETORSHIP

One person is sole owner.
Unlimited personal liability for business debts.
Termination upon death of owner.
Relative freedom from government control.
Generally, no income tax on business; only on owner.

PARTNERSHIP

Two or more persons are owners.
Partner's rights and duties defined by partnership agreement.
At least one partner must have unlimited liability for debts of the firm.*
Capacity of partner to bind others when acting within the scope of business.
No income tax on partnership itself.

* Under Philippine law.

^{1/}Ranada, *How to Start an Enterprise*. (UP-ISSI)

CORPORATION

Stockholders are owners who are distinct and separate from the corporation. Continuity unaffected by debt or transfer of stock shares. Subjected to more government control than a sole proprietorship or partnership. Income tax on corporate profits and on dividends after they are paid to stockholders *2/

The choice of legal forms will depend mainly on your resources and experience as well as the size of investment. A single proprietorship is advisable if an entrepreneur has sufficient resources and technical expertise to run the business singlehandedly. Otherwise, a partnership or corporate form may be considered.

CHOOSING THE LOCATION OF BUSINESS

As you know by now, the technical plan identifies the plant site or business location. In deciding where to locate, consider factors that enhance the viability of the project such as proximity to market, materials availability, availability of transportation and power, etc. Before a final decision is made, however, you must take into account the legal aspects of acquiring the property. In some countries, the ownership and possession of land is highly regulated. Therefore, you will do well to study laws and regulations affecting the transfer and use of land. Pollution laws and regulations and zoning requirements in particular must be studied and complied with.

ORGANIZING MANPOWER

Your project plan specifies the expertise needed in terms of administration, sales and production personnel. Based on these specifications, you need to develop a strategy for the recruitment of the staff. A small business usually makes use of referrals. In the case of an expansion project, referral from the present work force is advantageous and less costly to recruit. Friends and associates and even family members can suggest sources of manpower. A more formal recruitment procedure through placement or employment agencies may be a little bit more costly. Publication of manpower needs in the classified ads of widely-circulating newspapers is also an effective means of recruiting major personnel complement.

Getting the most out of manpower resources requires careful attention to their needs. Every worker must be oriented to the responsibilities of the job. If he is involved in a highly technical job, he should undergo formal training. New personnel must be given time and opportunity to adjust to job routine. Just and fair dealing with the work force, will enable you to derive the utmost benefit from your manpower complement.

* Under Philippine law.

2/ *Ibid.*

DETERMINING THE FINANCING PACKAGE

A business plan is an important document to use in raising the required funds for the project. At this point, you must have several financing alternatives. It is necessary to evaluate these sources before a decision is made to obtain external funding.

To ensure stability of business operation, a business must have adequate equity investment. Heavy reliance on borrowed capital, although advisable in projects with substantial cost requirement and highly profitable lines, may not be wise for a starting entrepreneur. Costly interest charges will exact pressure on the firm to operate at a high level of capacity which may not be possible for a starting business.

In deciding the appropriate financing package, you will be guided by the following questions:

1. What is the repayment period? Does it provide for a grace period on principal amortization or a longer period for the financing of capital requirements?
2. What is the interest rate and financing charges?
3. How is the fund released? Does the bank require a corresponding equity inflow for every amount of loan released?
5. How will you amortize the loan - monthly, quarterly, semi-annually or annually?
6. What are the restrictions imposed by the financing institutions on the loan package? Can you comply with these restrictions?

REGISTERING THE BUSINESS

In all countries, a business has to be registered with the local as well as the national government agencies. The number and nature of licenses to be secured and the costs involved have to be pre-determined to avoid legal problems arising out of non-compliance. For some industries, compliance with pollution protection regulations is a requirement for registration. Taxes to be paid and books of accounts required must be settled before starting a business.

Be sure to maintain a complete file of the business documents which may be required by the government regulatory bodies. This will be useful when you apply for government incentives. It is advisable to engage the services of an accountant and a lawyer on these aspects to avoid unnecessary delay and legal complications later.

CHAPTER IV

MANAGING THE ENTERPRISE

Management involves planning, organizing, coordinating and controlling human and material resources in order to achieve an identified objective.

Managing a small business requires not only an understanding of management techniques, as generally practised, but also an appreciation of size-related differences in management practices. Characteristics inherent in smallness, notably the centralization of authority on one man -- the entrepreneur, gives rise to special problems in small business management. The small entrepreneur can overcome these problems by developing and acquiring management skills appropriate to a small firm.

This chapter discusses these management skills, namely: identifying opportunities, planning, organizing, controlling and decision-making.

The small entrepreneur must particularly concern himself with managing human resources. This chapter provides practical tips on personnel hiring and selection, development and motivation. The entrepreneur is also urged to develop human relations/techniques.

After you have carefully identified, planned and organized your project, then you are ready to implement it. As you are both entrepreneur and manager, you must be aware of the principles and practices that will help you manage your small enterprise effectively.

WHAT IS MANAGING?

The success of a business largely depends on its management. The goals of an enterprise can only be achieved if it has a capable and effective manager to lead it towards desired goals to attain. You, too, can be a good manager and steer your business to success. Would you like to acquire, develop and enhance your management skills? Obviously, the first step would be to understand the concept of management.

Essentially, management is a distinct process of planning, organizing, conducting and controlling resources— both human and material— to achieve an identified objective.

The practice of management involves the use and development of specific skills, namely:

1. *Planning.* The determination of a course of action to achieve the desired result. Planning is largely a mental activity; a process of thinking before

doing. Planning requires imagination, foresight and judgment and includes such activities as the identification and evaluation of business opportunities and hazards, determination of the course of action to be adopted to achieve maximum profit or effectiveness, the establishment of policies and continuous seeking of new and better ways of doing things.

2. *Organizing.* As manager, you must develop an organization capable of accomplishing your objectives. "Organization" here refers to the structure which results from identifying and grouping work, defining and delegating responsibility and authority and establishing relationships.

3. *Coordinating.* You must coordinate the activities of the enterprise by balancing, timing and integrating them with each other. Balancing means apportioning human and material resources such that each type of resources supports or counterbalance the others. Timing requires that different activities, proceeding under their own schedules, are paced in such a way that they advance while reinforcing one another. Integration involves establishing relationships among the diverse activities which must be brought together to accomplish work effectively.

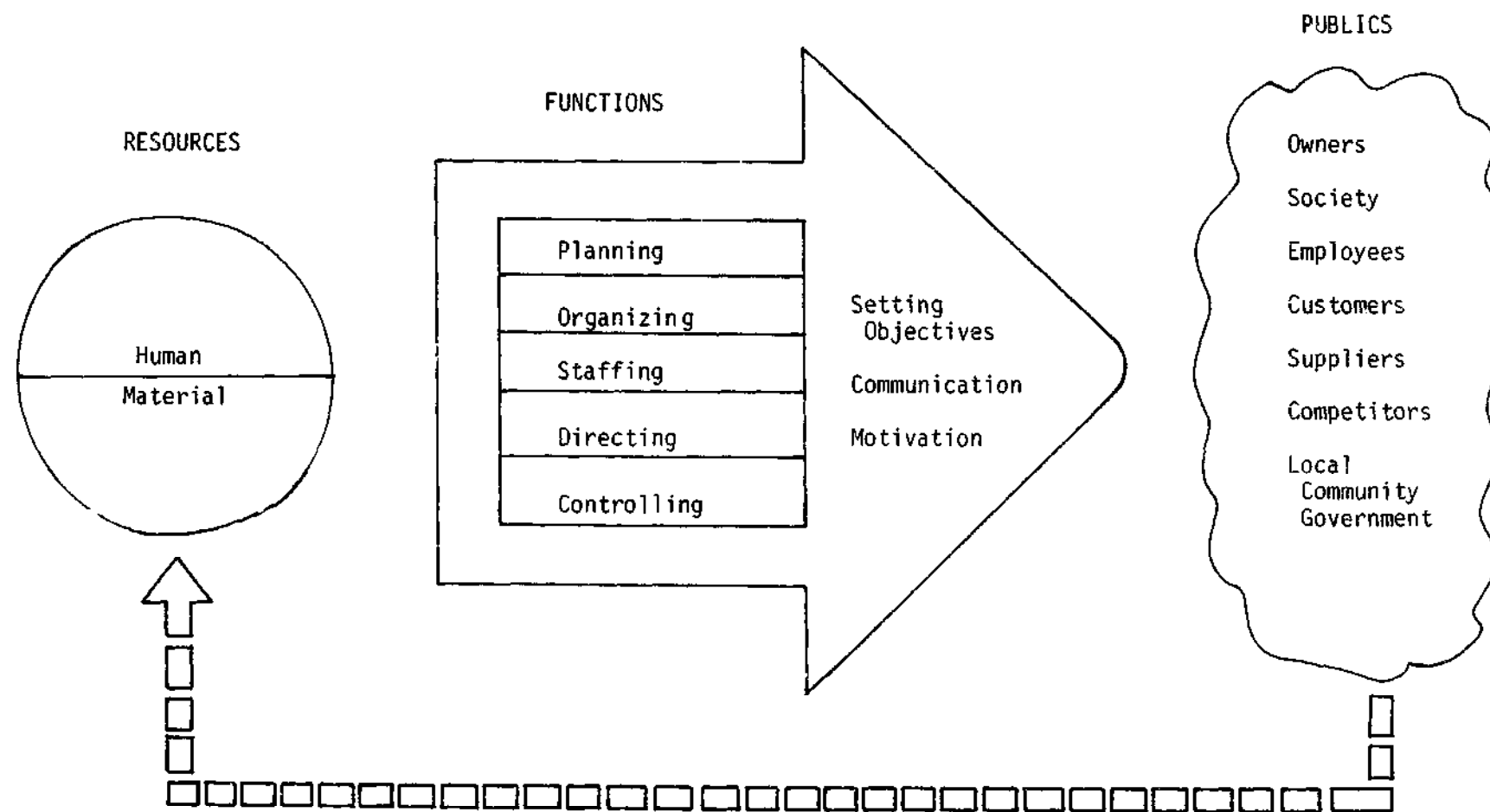


4. *Motivating.* In motivating your workers to become increasingly productive, you must remember that people are special in every organization. Do not take your people for granted for they can make or unmake your organization. Outstanding people can make even a poor organization operate successfully, while poorly-motivated people can impair the performance of the soundest organization.

5. *Controlling.* In management, control means to guide something in the direction it is intended to go. Work must be carried out in terms of certain performance standards which, most commonly, are based on the objectives, policies, programs and procedures and budgets established initially to guide the work.

The concept of enterprise management can be viewed in a nutshell from Exhibit 1. It shows the manager's functions, the resources for management and the publics towards which the manager has definite responsibilities.

Exhibit 1
Enterprise Management Process



MANAGEMENT AND THE SMALL ENTERPRISE

So you are now an employer. If you are an entrepreneur who has been used to working alone, you will find that hiring one or more employees will exact new demands on your capabilities. What usually follows is an "evolution" of new, more challenging entrepreneurial activities, like:

- *Leadership.* Undoubtedly, you have what is commonly known as initiative. Otherwise, you wouldn't have taken the steps that have led you to start your own small business. Today, with several employees under your responsibility simple initiative is not enough. Initiative will have to grow out to become leadership so that you can lead your people toward your desired goals.
- *Personnel management.* Training occurs when you find it necessary to transfer at least part of your knowledge to your employees. Soon, aside from the activities that require your personal attention, you will have to look after your personnel. These activities bring about a new entrepreneurial responsibility—personnel management.
- *Internal and external relations.* Basic human relations, which you probably possess in good measure, sooner or later must evolve to become internal and external (public) relations.

THE NATURE OF A SMALL BUSINESS

How, then, should you as entrepreneur, run your business so that maximum effectiveness can be attained? To answer this question let us first define a small enterprise. It is important to realize that, because of its size and unique operating characteristics, a small firm requires a management system or approach which is different from that of a large enterprise.

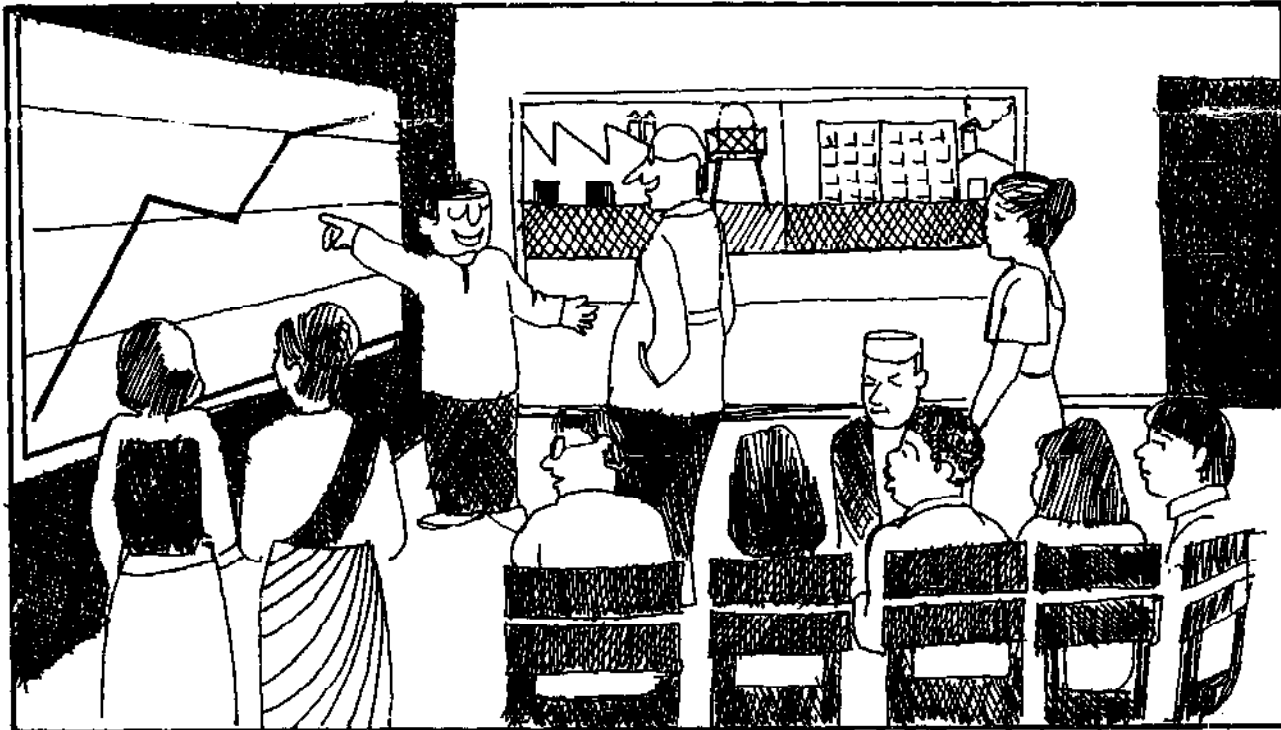
Any attempt, however, at a precise and exact answer to this question, would be a futile exercise. There is no standard definition that could possibly include the diversity and variety of small firms.

The concept of small industry is variously understood in different countries depending on economic and social conditions prevailing in a particular country.

Often, the definition is based on two criteria, namely:

1. *Quantitative*, which includes size of company in terms of number of workers, consumption of energy, capitalization or value of sales.
2. *Qualitative*, which refers to the organization and management of the enterprise, methods of production or influence on the market.

In Bangladesh, the definition of small industries has undergone several changes for the past 20 years. While in the fifties the definition of small industries was confined to investment of maximum TK. 2.50 lacs (US \$16,500) in fixed assets, the ceiling was raised to TK. 5.00 lacs (US \$33,000) in the early part of the sixties. Subsequently, the ceiling was raised again to TK. 10.00 lacs (US \$ 66,000) excluding the value of land. Presently, small industries in Bangladesh have a total investment ceiling of TK. 25.00 lacs (US \$165,000).



An Indonesian small firm is one with an investment of less than Rp 70 million (US \$112,000) for machinery and equipment.

Malaysia's small firms are characterised as those whose owner-managers make most of the management decision in the absence of specialists in their staff. Having fixed assets of M \$300,000 (US \$13,135) or less, a Malaysian small firm employs less than 24 workers.

Similarly, in the Philippines, a small enterprise is one whose owner-manager is not actively engaged in production but performs the varied range of tasks involved in guidance and leadership without the help of specialized staff. Quantitatively, it employs more than five but less than 100 workers and has assets totalling not less than P100,000 (approximately US \$13,000) and not more than P1 million (US \$130,000).

In its early years of industrialization, Singapore defined a small industry as a business venture which employed less than 50 workers with investment in machinery and equipment of less than S \$250,000 (US \$120,500). Today, under the government-sponsored small industries finance scheme, a small industry is defined as one having not more than S \$2 million in fixed productive assets, i.e., factory buildings, machinery and equipment and loose tools for production.

Industries with an investment on fixed assets (land, building, machinery and equipment) up to Rs. 2,000,000 (US \$110,000) in which investment on machinery and equipment does not exceed Rs. 1,000,000 (US \$55,000) are treated as small and medium industries in Sri Lanka.

In Thailand, an industrial enterprise is considered small if it uses mechanical or motive power, employs not more than 50 workers and has a capitalization of less than two million baht (US \$99,500).

As can be gathered, quantitative indicators seem to be the more variable or flexible criteria in defining a small firm. Indeed, these indicators are only supplementary to the more stable qualitative characteristics that make a small firm and its problems significantly different from those of a large one. Hence, regardless of the varying definitions adopted by different countries, the following qualitative criteria appear to be common among small enterprises everywhere:

1. *Ownership*

The equity of small firms is generally owned by one or very few persons. They tend to be managed directly by their owner or owners. Small firm owner-managers have a high degree of independence in the sense that they have ultimate authority and control over the business.

2. *Scope and scale of operations*

Small firms usually serve a local or regional market rather than a national or international market. They also tend to have a very limited share of a given market.

3. *Management style*

Small firms are generally managed in a personalized fashion. Their managers tend to know all the employees personally. They participate in all aspects of managing the business and there is generally no sharing of the decision-making process.

These attributes give rise to most of the problems and special needs that small firms have to cope with. They are also the factors which determine most of the management differences between small and large businesses.

COMMON PROBLEMS OF THE ENTREPRENEUR AS MANAGER

Many of the basic problems of organization, production, marketing, finance and personnel relations are shared by managers in all countries. These problems, however, have always been misunderstood as resulting from lack of financing and not from the absence of appropriate management systems. A common misconception is that bigger companies succeed because funds are always available to spend for managerial know-how. This implies that the only difference between a large and a small firm is the financial situation and that management problems can be solved by the mere presence of money to operate the business.

Is money, then, or the lack of it, the most serious problem of the small entrepreneur? Studies show otherwise. Researches on small enterprises reveal that inadequate management know-how, rather than too little funds, lie at the root of the small firm's difficulties.

A survey-backed management briefing conducted by the American Management Association points out the need for proportionate ways of managing industries in accordance to size. It makes the following conclusions:

1. Small businesses require for survival not only good understanding of management techniques as generally practised but also thorough knowledge of size-related differences in management practices.

2. Exploitation of size-related opportunities is as important to the small company as is the development of product advantages or operating efficiencies.

Countless executives who have transferred from a small company to a large one have had to learn these lessons.

The observations and studies made on small companies in countries like Indonesia, Malaysia, the Philippines and Thailand reveal the following conditions existing in the small firms which are *inversely* related to their success:

1. Adequate records are absent. This leads to a situation where the entrepreneur-manager direly lacks the information required to make sound decisions and direct the company's future activities. Another consequence is that financial statements are usually worked out either for income tax purposes or for financing institutions in cases of loan applications.

2. Although undercapitalization may be an apparent feature, the lack of financial management is usually the cause of shortage of funds. Money is commonly tied up in fixed assets, thus depriving the operations of liquid funds to use as working capital.

3. Organizational set-ups are usually floating in the sense that responsibilities are given to people as needs come up, with control and administration centralized on the entrepreneur-manager. It follows also that the continuity of management is not provided for. Many entrepreneurs are concerned that no one could be entrusted with the responsibility of helping him manage the company, partly or wholly. Because management is centralized on one man, control and direction become limited to the extent that entrepreneur has the time and capability to cover the different functional areas of management. As a result, management is confined to dealing with day-to-day problems at the expense of planning and real control.

4. Tied up with organizational deficiency is an inadequate system of internal administration wherein such important areas as production scheduling, inventory control, quality control, and cost control are overlooked in the management of the business. This production or operational oversight may lead to dire consequences: a disproportionate amount of funds tied up in inventories— from raw materials to finished products; delivery schedules unmet; and accounts payable unpaid. Materials consumption and costing are estimated by guessing which may result to over- or undervaluing and in competitiveness problems. All these place a heavy burden on the financial position of the small enterprise.

5. The undue centralization of administration responsibility also impairs efficiency of production operations. Workers are left to learn a job on their own either by observing old workers or through a haphazard training system assigned to a more experienced worker. The absence of a training program results in poor productivity. Production operations are not improved as time passes because work performance is hardly measured in terms of set standards.

6. Recruitment standards and procedures vary as job openings come up. The company then gets stuck very often with drifting jobless people or those recommended by relatives or friends who may not necessarily be qualified or trainable people.

7. Marketing activities are limited to a "copy-cat" system whereby an entrepreneur "waits and sees" what the competitor will do that he can simply imitate. There is practically no development and research; products are all too often copies of similar items seen elsewhere. Sales achievements are largely a "hit or miss" in the absence of systematic market analysis and forecasting.

8. Decision making is very seldom made from an assessment of prevailing situations but is done more on "hunch" or "feel".



9. Even if financial problems may be overcome through borrowings, the entrepreneur lacks managerial competence to use the money wisely for the attainment of company goals. And realizing his lack, he is not inclined to avail of competent professional assistance mainly because he does not have confidence in the capability of an "outsider." Moreover, he may not want to trust a "stranger" with his "business secrets."

10. The business was started with the shortsighted view that the success of another can be repeated. That is, the entrepreneur was encouraged to enter a particular business simply because someone else before him did—and made it. Unfortunately, there is no assurance that he can score the same success unless he can combine the "right ingredients" as his predecessor apparently had.

OVERCOMING MANAGEMENT PROBLEMS IN THE SMALL ENTERPRISE

The foregoing conditions comprise the factors that generally contribute to the failure of a small firm. Hence, it is apparent that managerial competence plays a major role in the success of a small entrepreneur. It becomes imperative, therefore, for you to develop the skills which will enable you to cope with small business management problems and improve the effectiveness of your firm. However, before you can develop and acquire the management skills appropriate for small firms, it is important to recognize and accept the fact that *managing* is different from *operating*. As you think of all the business in



town—manufacturing, wholesaling, retailing and the various services—you will see that each one is different from the others. However, these differences are all in the area of operations, which include five activities: buying or making (if the business is in manufacturing), pricing, selling, paying and pleasing.

All successful businesses practise the same management principles, don't they? Where, then, is the distinction? First of all, *operating* is physical while *managing* is mental. And *managing* is for tomorrow while *operating* is for today or yesterday.

There are certain very important skills which you can use in managing your business successfully. They are *identifying opportunities*, *planning*, *organizing*; *measuring and improving* and *decision-making*.

IDENTIFYING OPPORTUNITIES

The entrepreneur does this by taking a few minutes each day to take a look ahead, asking himself these questions:

1. How many people will live in this place five to ten years from now?
2. What product or service could I provide?
3. What will it be worth to them?

4. Can I make a profit selling it to them?

The place is growing. You are in a growing business. If you look forward you see more uses, more users. The first thing you must develop is the ability to look forward. With the people getting better educated, they will want and can afford to buy more things. The trick is for you to look ahead and be first to offer the consumer goods he may want or wish. You must then be inclined to act on the new opportunities. When you look ahead, today's prices appear as bargains. Conversely, when you look back, today's prices seem high. Then you would wish for the good old days and do nothing.

PLANNING

When you look ahead and do nothing about it, you are merely dreaming. Managing is planning. You must set a goal and list down the steps to reach that goal on time. The man with the plan has more chance for success than another who does business on a day-to-day basis.

In small firms, lack of effective planning and its negative consequences are a major problem area. To remedy this you must:

1. Understand the specific causes for the limited planning generally found in small firms.
2. Be convinced that formal planning is worthwhile and a basic pre-requisite for successful operations.
3. Develop an awareness of planning methods that are suitable for small business situations.

In developing a formal planning system in a small firm, the first step that must be taken is to analyze the forces that are of critical importance for achieving success. This would involve the following key processes:^{1/}

1. Resource analysis. It involves the evaluation of the firm's strengths and limitations in marketing, production, finance management and personnel facilities.
2. Environmental analysis. This consists of the evaluation of external conditions and trends such as aggregate economic developments, technological changes, governmental regulations and social trends.
3. Analysis of competition. This means the comparative analysis of a firm's strengths and weaknesses in relation to its major competitors.

Having analyzed the significant factors, the entrepreneur should next specify his organizational objectives, which may be in the form of sales volume, growth of earnings, return on investments, market share or new product development.

^{1/}Schollhammer and Kuriloff, *Entrepreneurship and Small Business Management*.

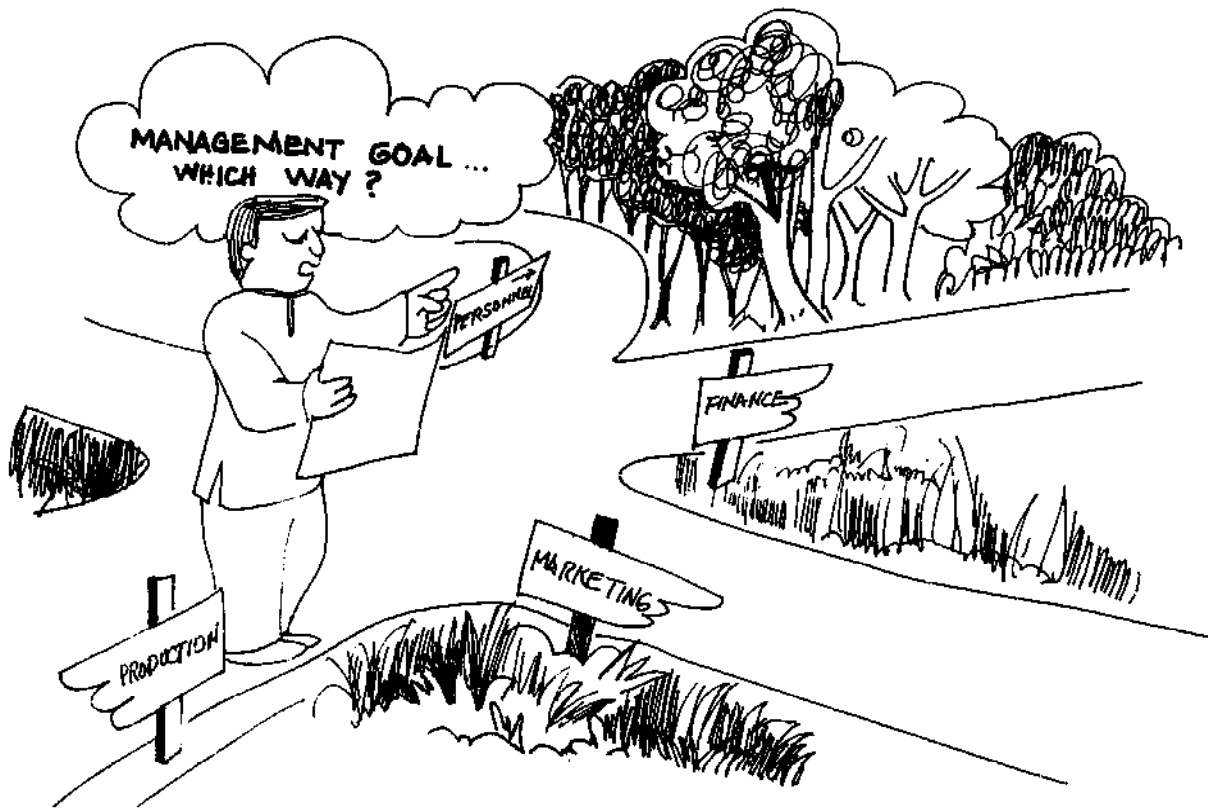
The analyses will likewise bring about an awareness of the firm's opportunities and risks. Ultimately, the above courses of action will help the small manager determine the appropriate strategies and tactics to use in order to achieve desired objectives economically.

How to plan

Small entrepreneurs often make crisis on last-minute decisions. They are forced to do this because they are always pressed for time. You should therefore, begin making plans—step-by-step and day-by-day schedules. Everything works more smoothly and more profitably if there are plans.

In planning you have to:

1. Establish your objectives or goals.
2. Make the basic assumptions to be used in drawing up the plan. The assumptions to be made are in respect to the following:



. Non-controllable conditions - What is expected to happen with regard to conditions which the firm cannot control such as population growth, future price levels and business cycles?

. Semi-controllable conditions - What assumptions should be made concerning conditions which the firm cannot control but can influence their happening to a greater degree (such as the share of the target market, the company's price policy and employee efficiency and turnover)?

. Controllable conditions - What assumptions should be made regarding policy matters which management can decide largely for itself (such as, whether to expand into new markets, new product development, and selection of a new site for the firm's location)?

3. Search for and examine alternative courses of action.
4. Evaluate alternative courses of action.
5. Select the best course of action and adopt plan.
6. Proceed on the same basis to carry out the major overall plan.

ORGANIZING

This skills requires the entrepreneur to have the ability to "carry people with him to put the project over." There are several kinds of people: those who know *markets*, those who know *money*, those who know *men*, those who know *methods*, and those who know *materials*. The head of any business must pull these five M's together. He assembles them, then unite them into a team, then lead them to win.

Critical Issues in Organizing

It is generally accepted that to be effective the structure and internal functioning of an organization must be compatible with the demands of the organization's tasks, the technologies that are used, and the relevant conditions of the external environment. Practically every enterprise has its unique operating characteristics and environmental conditions. This may cast doubt on the validity of the universal principles of organization. Yet there is evidence that effective organizations show certain common features. The small business entrepreneur-manager should use these guidelines in organizing any endeavour.

3. "Human" use of human beings

A good organization integrates the requirements of the work with the desires and capabilities of its people. Recent literature on organization stresses two theories of organizational approach. One is the *work-centred* approach to organization design and which views the organization as structured around the tasks to be performed. The other defines a *people-centred* set of values. It stresses the intrinsic needs of employees and the human relations aspects of management. An effective organization, however, results from a balanced approach that takes into account the requirements of work as well as the desires of employees for harmonious, satisfactory interpersonal relationships on the job.

2. Appropriate departmentation

This refers to the particular groupings of functions or activities in the organization, showing their relationships and the people doing them. The groupings establish the logical arrangement of the functions and activities into levels in the organizational structure, thus facilitating the assignment of personnel according to their capabilities, skills and motivations.

3. Unity of command

Each unit in the organization should have only one leader with corresponding authority and responsibility to coordinate and control the activities of such unit as well as the workers there. A worker must have only one direct boss or supervisor to avoid confusion, irresponsibility and inefficiency due to conflicting orders.

4. Balance of authority and responsibility

Authority is the right to act or to direct the actions of others in order to achieve specific results. To effectively carry out assigned tasks, responsibility requires commensurate authority. An individual assigned to get others to do a job must have enough means to carry out the task. The imbalance of responsibility and authority results in chaos, buck-passing and other organizational conflicts that cause inefficiency.

5. Proper degree of delegation

There is an appropriate place in the organization for every task that must be performed. Management should not burden itself with tasks that can be performed effectively at a lower level in the organizational hierarchy. To obtain the greatest benefit from a sound organizational structure it is necessary to delegate tasks as far down in the organization as possible. As previously mentioned, small entrepreneurs are generally averse to delegating authority to their subordinates although they expect the latter to do all tasks assigned to them that require authority. This is partly due to a misconception of what delegated authority means. For authority can never be delegated— it can only be *shared*. Delegating authority does not mean surrendering it. The entrepreneur-manager delegates just enough authority for the subordinate to carry out his given task.

6. Proper span of control

This refers to the number of subordinates directly accountable to and effectively managed by a manager or supervisor. Because there is a limitation to the human capacity for attending to and supervising different activities and workers, the number of subordinates over which an executive has direct responsibility should be just enough for him to carry out his tasks effectively. The larger the number reporting to an executive directly, the less attention he can give to each subordinate.

Studies show that usually about four to eight workers are just enough for a supervisor to handle, although in actual practice, the number is flexible depending upon the following factors:

- a. Ability and experience of the supervisor.
- b. Training and skill of the subordinate.
- c. Nature of the tasks, whether diversified, highly technical, complicated, routinary or repetitive.

A supervisor can handle many workers when:

- a. The job is simple. Jobs in the lower ranks of an organization require less supervision.
- b. The workers are doing similar work.
- c. The work is repetitive in nature.
- d. The workers are located close together.

Small companies tend to have a broader span of control than large companies primarily because small firms cannot afford the costs of additional organizational layers that go with reduced spans of control. A broad span of control combined with insufficient delegation creates a heavy work load for many small business managers, which in turn is the cause of poor decisions, lack of planning and weak control of subordinates which may reduce work efficiency.

Designing the organization structure

Four basic forms may be used in designing an organization structure: a *line structure*, a *line and staff structure*, or a *functional structure*.

1. The *line organization* is the typical form for a small enterprise. It is a set-up in which each manager has clearly defined area of responsibility and is accountable to only one supervisor. Each individual is given complete charge of the work assigned to him, subject only to the authority of the superior to whom he reports. (See Exhibit 2).

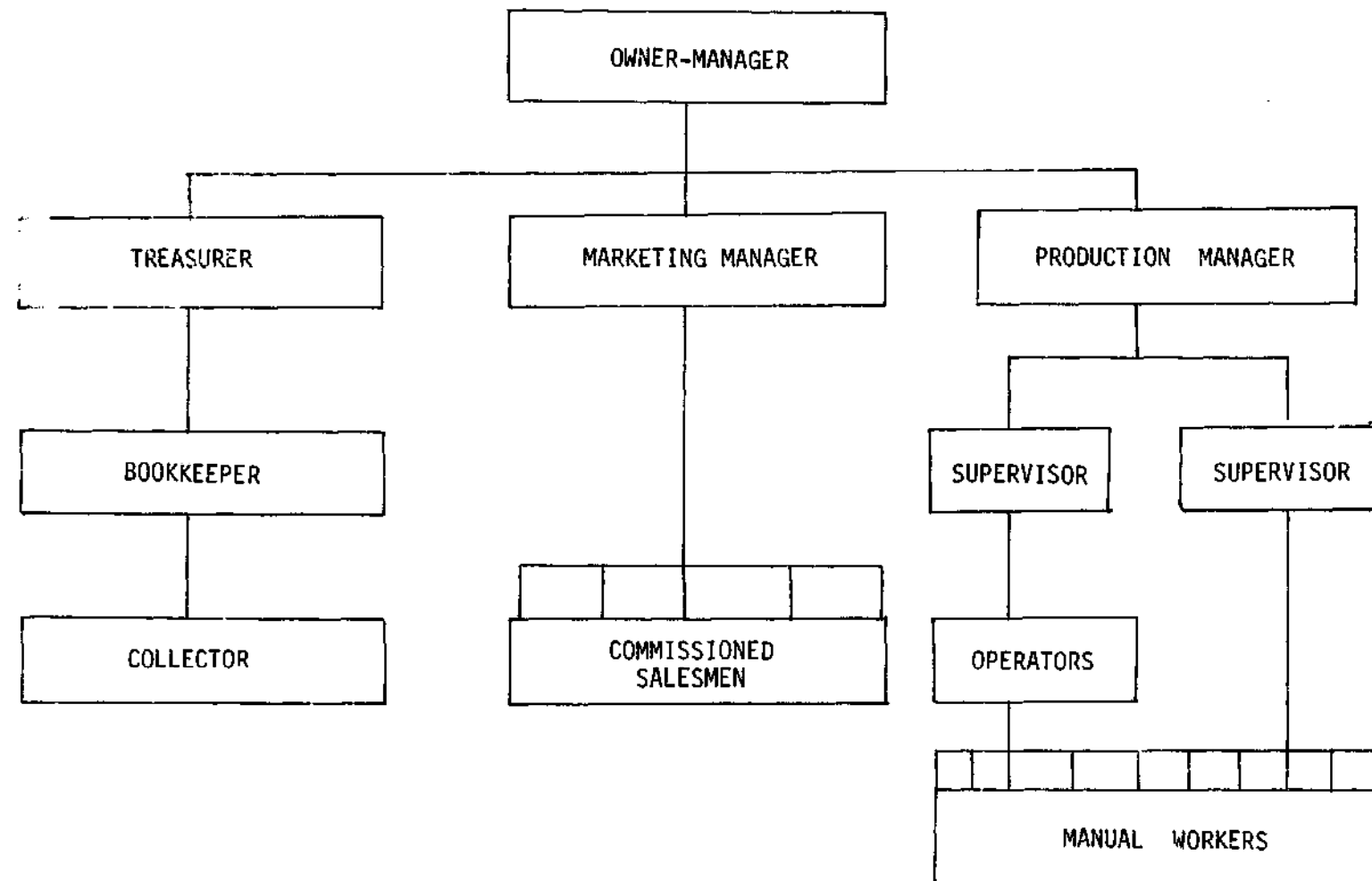
Small enterprises generally adopt the line type of organization structure because of its simplicity and efficiency.

- Decisions are quickly reached and it lends itself to a minimum of "buck passing". It also tends to develop versatile, well-rounded executives, since they are expected to be familiar with all the duties and functions of their particular organization, department or unit. It has its disadvantages, though. Although the vesting of final authority and responsibility in the hands of a single individual has real advantage especially if that person is highly capable, concentration of power tends to develop in the executive, the feeling of self-righteousness in all his decisions and makes him think he alone can do the job. Moreover, in the line form of organization authority is too highly centralized. Thus, nobody else can decide and act on problems if the chief executive is away.

2. The *line and staff organization* has the features of the line type but allows the use of expertise of staff specialists. These specialists can assist the line managers to perform their varied functions without increasing the number of decision-making centres in the organization.

Each person reports to only one supervisor, yet receives specialized services and help from various experts. As adviser to line officials, a staff officer plans, advises, suggests and assists them, but the execution is left to the line

Exhibit 2
Line Organization



officials themselves. One disadvantage in this type of organization is that oftentimes, staff specialists overstep the bounds of their authority and force their suggestions and services upon others.

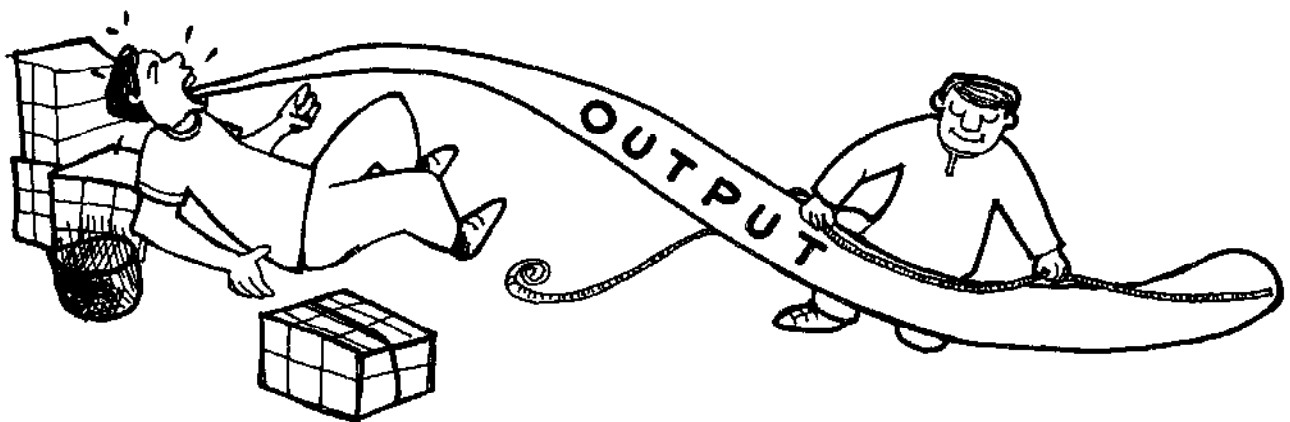
3. The *functional organization* emphasizes the functions or the kinds of activity in each unit.

The worker reports to several supervisors, the number depending on the nature of his work or activity. Each supervisor to whom the worker reports is a specialist in a particular line or job in which the worker may have a problem. However, although management is strengthened and operates efficiently because functions are grouped according to their specialized nature, a problem that tends to arise in this type of organization is that the experts who seemingly have "equal" authority cannot work together smoothly. Furthermore, despite the apparent clarity on paper in the lines drawn from a particular subordinate to his several superiors, it is not always easy to determine which specialists to turn to when in need of guidance.

CONTROLLING AND IMPROVING

The controlling function of the manager involves the following activities:

1. *The establishment of standards of accountability.* The manager sees to it that there are valid, understandable and acceptable gauges for measuring work as it is carried out. These standards are based on the plans established to initiate the work.
2. *Measurement of work in progress.* Record of work must be kept as it progresses so that performance can be compared to the applicable yardstick. Measurement may be in terms of money spent, units expended, customers contacted, activities completed, etc. Accurate reporting to the work accomplished is also a requirement for effective measurement.
3. *Application of corrective measures.* When deviations from objectives occur, it is necessary to bring the work back to the desired course. The manager himself must decide what is required to achieve the expected results.



Measuring here refers to the procedure used to assure that performance conforms to plan. One of your greatest fears as entrepreneur or top man is that you may not be in control - that you do not know what is going on. Certainly, you must design a control system which will tell you whether company operations are on course, and, if not, what is being done about it.

It is obvious that decentralization of decision-making is impossible without a system of controls. One of the major purposes of a good control system is to ensure that decision making can be delegated. This points to an important definition of what control is *not*. Control does not mean that the top man makes the decision himself; it means that decisions are made at the right level at the right time. A good system of control provides for a regular and continuing review of every function in the company, based on the following questions.

1. Where is the company now?
2. Where did management say it would be?
3. What are the reasons for the difference?
4. What does management intend to do about it?

This brings us to another difficult task; to make changes, no matter how painful. The entrepreneur-manager should really look ahead, out and around. He should take time to analyze and find out how others do things better. Progress is certain if he is willing to improve.

DECISION-MAKING BY THE ENTREPRENEUR-MANAGER

Poor decisions are usually the result of poor information. Without accurate and timely information, guess work is done as a poor substitute to decision making. This is usually the case in small business management. In order to make sound decisions, therefore, you need adequate, accurate and valid information.

Intelligent decisions can rarely be reached in a random, haphazard way. A competent manager can be distinguished by the way he approaches and solves his problems. He is logical and systematic. He has to be, since it is a major part of his job to solve problems, appraise policies, and plan for the future. All these activities, which comprise small business management, require the making of sound decisions.

The major task here is to make the decision-making faster, especially in the small firm. Here are some suggestions as to how the entrepreneur-manager can facilitate and improve decision-making.

1. Spot what is important. Perhaps the most important aspect of decision-making is the ability to distinguish between the significant and the trivial. To devote sufficient attention to problems that deserve it, you must conserve time, guard against becoming engulfed in a maze of details. The big task is to avoid letting minor problems take up so much of your time that you cannot give ample attention to more important things.

2. Use the process of delegation. Remember that mental work can be delegated, as well as manual work. In fact, many organizations have been weakened by a too-strong leader — a dynamic, domineering personality who creates what has aptly been called a "one-man organization." Do not burden yourself by refusing to delegate any decision-making process; take every opportunity to give your subordinates a chance to develop executive ability.

3. Use the exception principle. This will enable you to free yourself from routine and devote more time to important decisions. Under this principle, only exceptions to the general rules, routines, and standards are referred to you by your subordinates.

In other words, frequently recurring matters are reduced to routine, and policies are set to govern them. These are then delegated to subordinates. The entrepreneur-manager acts on the exceptional matters only.

4. Use consultative supervision

Here is another way in which you can bring your subordinates into the decision-making process in a constructive way. Consultative supervision is the informal discussion with subordinates of questions in which they have an interest.

In other words, you should consult your subordinates on matters that affect them. This achieves two things:

a. It gives you the benefit of your subordinates' ideas and suggestions, which are worth having.

b. It tends to strengthen group morale, since the feeling of solidarity and participation is increased. To put it in blunter terms: It boosts a man's ego to be asked for his advice and opinion by his boss. Besides, the boss may learn something in the process.

THE HUMAN RESOURCES IN THE SMALL FIRM: HOW SHOULD THEY BE MANAGED

The small firm is notoriously deficient in its practice of personnel management. Too often this aspect of small business management is haphazard and unsystematic. Entrepreneurs are usually so busy selling and getting their products out the door that they give little or no thought to the consequences of an unplanned approach to the procurement, utilization, maintenance and development of individuals in the organization. This neglect on the part of the entrepreneur is the cause of the personnel problems encountered by small firms as enumerated earlier in this chapter. Many-a-small company misses the opportunity to increase its effectiveness by operating its personnel functions loosely and informally.

A SOUND PERSONNEL POLICY IS A MUST

With little background in management theory and practice, you may often operate by handling individual problems as they arise. You may see no connection between the decision you make in a particular instance and the establishment of a policy that will govern the outcome of similar situations in the future. Failure to formulate clearly-defined policies causes many problems for your small and growing business. This holds true in personnel management as well as in other areas. You must, therefore, appreciate the importance of establishing sound policies for carrying out the operative functions of procuring, developing, maintaining and utilizing labour in your small enterprise.

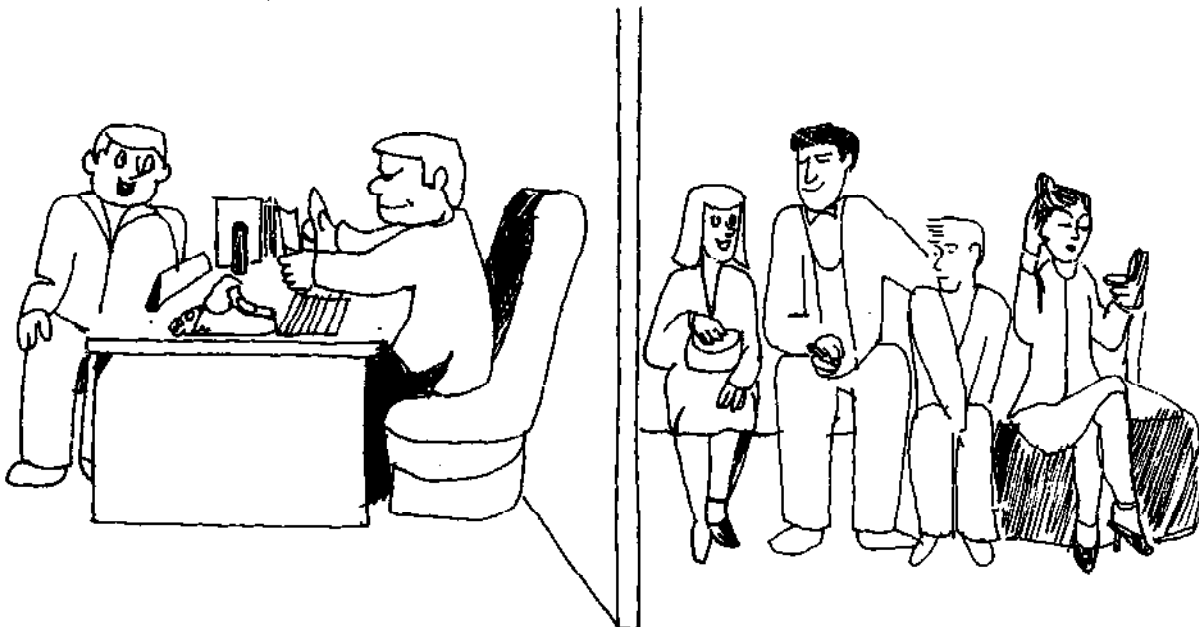
With the hiring of the first employee, you set standards that can help or hurt your future efforts. Too often entrepreneurs believe that they cannot afford high-quality help. They hire the first person they can find regardless of background, education and potential for growth - usually relatives and next-of-kin.

EMPLOYEE PROCUREMENT

Personnel procurement refers to the function of hiring labour, to perform a specific task in the organization. It is a three-step process of:

1. Identifying the position to be filled, its responsibilities and the skills and background required to meet them.
2. Attracting those people who have the qualifications for the position.
3. Hiring the most promising candidate.

Recruiting. The small company does not have the "come-ons" of high salary, attractive fringe benefits and other incentives of the large company. It must therefore, use every resource at its command in the search for qualified applicants for a position.



Among the possible sources of labour available to the small company are:

1. Present employees
2. Former employees
3. Applicants who come unsolicited
4. Trade and industrial associations
5. Business friends and relations
6. Suppliers and customers
7. Newspaper advertisement
8. Schools and teachers
9. Employment agencies

Selecting and hiring. The small business is at a disadvantage because it cannot offer generous fringe benefits. It must therefore attract personnel through the advantages in smallness, like camaraderie, close-knit teamwork and opportunity for rapid personal growth as the company grows. You must learn about salary levels in your particular line of business. You should also be aware of the customary work hours in your area, working conditions, incentives and other fringe benefits that may be given by firms with which you compete. So armed, you are ready to fight the battle of selecting the right person for the position.

The tools used in selecting the right person for the job are the application form, interview and testing.

1. The application form - This should not be complicated, but must be tailored to fit the needs of the organization. It should include such information as:
 - a. Person's name, home address, telephone number and marital status.
 - b. Age, date of birth and such physical characteristics as are pertinent in the business.
 - c. Education and training (if they are included in job specification).
 - d. Previous work experience and such other information that may be necessary in making the selection.

When completed, the application form provides in writing the facts regarding a prospective employee's background, both personal and business. From here, his qualifications can be analyzed and evaluated for the job that must be filled.

2. Interview - This is where the job and the applicant meet. The applicant finds out about the requirements of the job. On the other hand, you, as employer, learn about the prospective employee's qualifications for the job. It should be conducted in privacy and usually by appointment. Furthermore, the interview should be planned well utilizing the following procedures:

- a. Review the application, it is your guide.
- b. Put the man at ease with a few general remarks.
- c. Direct your questions to subjects not answered in the application.
- d. Let the applicant do the talking, the way he expresses himself will tell you a great deal.
- e. Close the interview by telling the applicant, "I'll let you know by _____."
- f. Summarize your evaluation of the applicant.
- g. Arrange for additional interviews when necessary.
- h. Above all be diplomatic, for each applicant can be a potential customer.

3. Testing - The entrepreneur should engage the services of an expert to advise him on the proper tests to be administered for specific jobs and their correct scoring and evaluation.

EMPLOYEE DEVELOPMENT

Is the development of employees necessary? The development of the ability to carry on the work of the organization is too important to leave to chance. To depend on the employee's initiative alone to pick up the knowledge and skill he needs is generally inadequate and inefficient.

Employee development usually comes in the form of training. You should, therefore, be knowledgeable in planning the training program for your employees. You should:

1. Establish the training needs.
2. Choose the most practical training methods.
3. Decide who will handle the training program.
4. Train the trainer.
5. Evaluate the results.

The most common methods of training are: on-the-job training, group training and specialized training.

MAINTAINING AND UTILIZING EMPLOYEES

In a small business, the personnel management functions of maintaining and utilizing employees are carried out through the practice of human relations. In fact, small business management is practically the art of human relations. The way you relate with the human forces in your organization is the deciding factor over the productivity or unproductivity of your business.

Human relations involve the promotion of motivation, job satisfaction and cooperation among the employees. In most developing countries, personnel management in small industries is synonymous to human relations. It is because the cultural values and indigenous personality traits of the individuals in the small enterprises - in these countries are dominant forces that affect the management system.

Motivation is the key

Exactng the highest level of efficiency and productivity from the workers in the small firm means more than giving them the material compensations for their performance, although, of course, it is the essential factor. Harmonious interrelationships among all the individuals and all levels in the firm go a long way towards motivating the workers towards productivity.

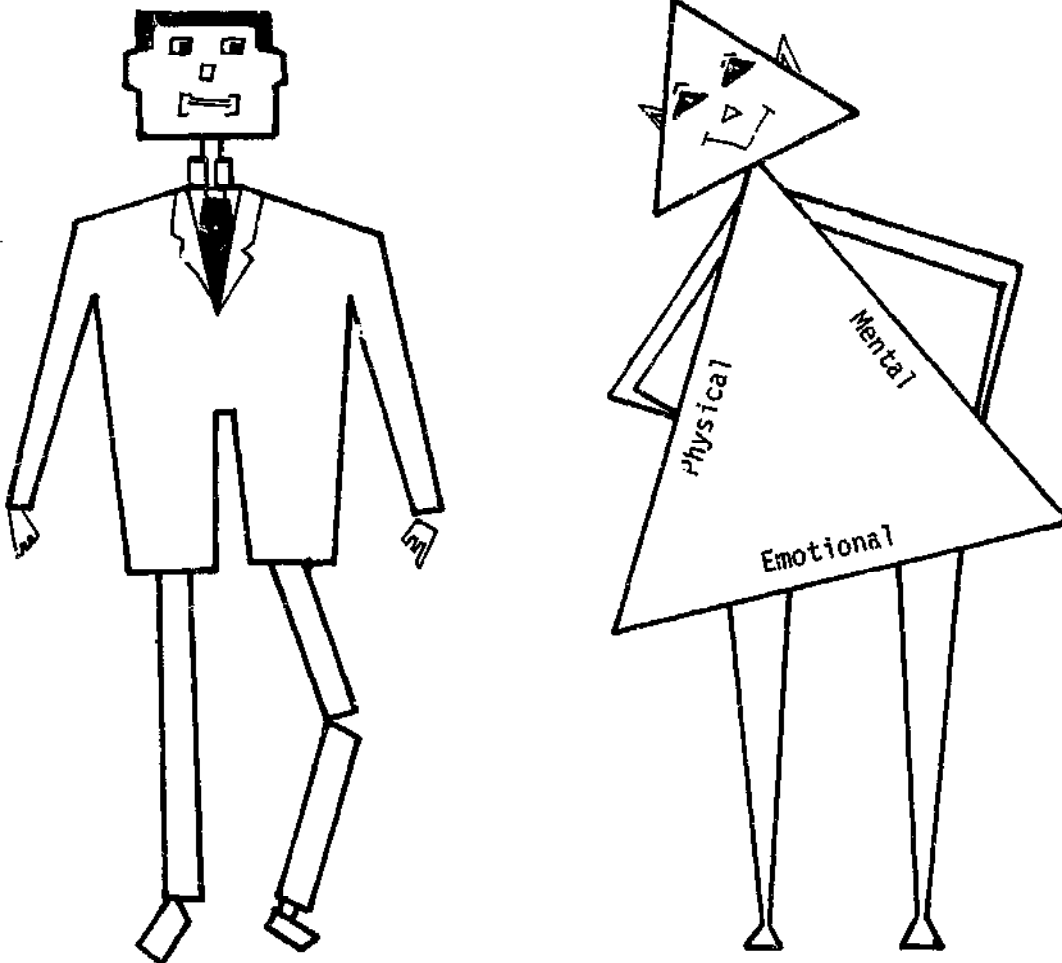
To motivate effectively, you will do well to remember that individuals behave the way they do because of their own particular needs which might be physiological or psychological. It must be remembered that individuals are different from one another and they are a composite of several personality dimensions. Their physical, mental and emotional make-up must be considered if the entrepreneur is to manage them effectively. They should be viewed as "triangles" not "squares". (See Exhibit 3)

The following points will help you motivate your people to the highest performance you want them to manifest:

1. Select the people you want on your team and make sure that the people who join your organization are compatible with one another.
2. To inspire your people to highest performance, provide for communication and participation. See to it that your people have an opportunity to be heard on matters affecting them and that they participate in the preliminary discussions and analysis of decisions that directly involve them.
3. Appraise, counsel and coach the subordinates who report directly to you.
4. Learn to direct others without arousing resentment. The obedience of your subordinates must be secured without destroying initiative and creativity.

Exhibit 3

"We are triangles - not squares"



TECHNIQUES OF GOOD HUMAN RELATIONS

By developing and applying the following human relations techniques, you are assured of an efficient, high-producing and effective business organization:

1. Let each worker know where he stands, periodically discuss evaluations.
2. Give credit when credit is due.
3. Inform workers in advance of charges; informed workers are more effective.
4. Let workers participate in plans and decisions affecting them; participation encourages cooperation.
5. Gain worker's confidence; earn loyalty and trust.
6. Know all your workers personally; find out their interests, habits, and touchy points and capitalize on your knowledge of them.
7. Listen to the ideas of your subordinates; they have good ideas too.
8. If your workers's behaviour is unusual for him, find out why, there's always a reason for every behaviour.
9. Try to make your wishes known by suggestions or requests whenever possible; people generally do not like to be pushed.
10. Explain the why of things that are to be done; workers do a better job when they know why.
11. When you make a mistake, admit it, and apologize. Others will resent your blaming someone else.
12. Show workers the importance of every job; this satisfies the need for security.
13. Criticize constructively. Give reasons for criticisms and ways to correct them.
14. Precede criticisms with good points and show your workers that you are trying to help them.
15. The supervisor sets the styles; do as you would have your workers do.
16. Be consistent in your actions; let your workers know what is expected of them.

17. Show confidence in your workers. This will bring out the best in them.
18. Set proper goals. Give workers goals they can work towards.
19. If one person gripes, find out why; the gripes of one may be the gripe of many.
20. Settle all grievances, if possible; the unsettled grievances of one person affects everyone.
21. Back up your workers; authority must accompany responsibility.

CHAPTER V

MARKETING MANAGEMENT

The small local manufacturer in a developing country may often find himself "on the defensive" in order to prove that his product is better than its imported counterparts as well as products of larger, more well-known competitors. He must therefore market aggressively and constantly keep abreast with modern marketing strategies. Customer-orientation and integration with other activities are two most basic principles in marketing.

The small entrepreneur, who is very likely to be the firm's marketing manager, must be familiar with his market as well as his product's life cycle. He should understand the various pricing strategies since pricing is a crucial marketing decision. Usually, he does not sell directly to end-users but uses middlemen or channels of distribution. He must not overlook the importance of promoting his product and providing after-sales service. Finally, however lucrative it may seem, the small entrepreneur must take caution before venturing into the export market.

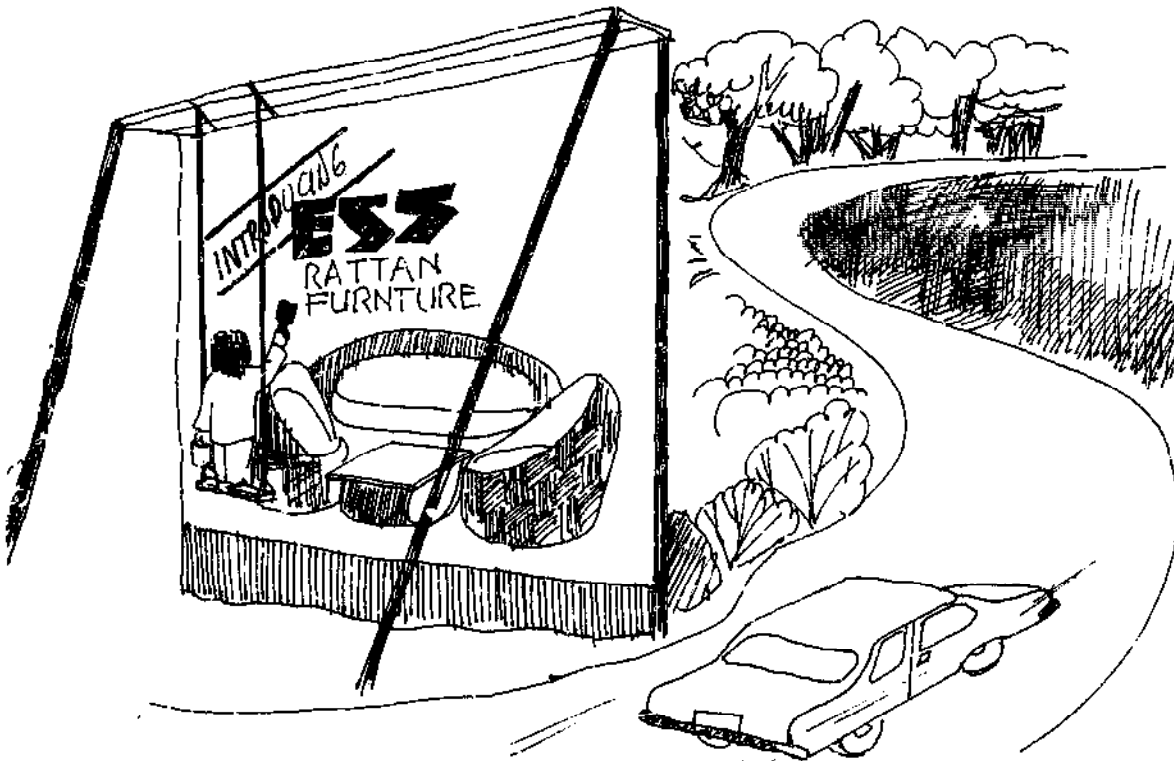


OVERVIEW OF MARKETING IN DEVELOPING COUNTRIES

Marketing in less developed countries is prescribed to a large extent by the very limited purchasing power of the average consumer. Competition grows as a bigger range of consumer products vie for the consumer's spending money. As a rule, the consumer sets priorities of expenditures and makes purchases from among a wide selection of goods, including appliances, furniture, clothing,

sporting goods, luxury foods, etc. All of these products compete with one another for the meagre surplus income after the consumer has satisfied his basic needs. In view of this situation, you should be able to distinguish between essential and luxury goods, so that you may effectively promote and market your products.

You are aware, of course, that among consuming publics of most Asian countries, there is a deeply-rooted preference for foreign-made products. Faced with this disadvantage and despite government import controls, you, being the local manufacturer, at once find yourself, in a manner of speaking, "on the defensive." You have to set out to prove that the quality of your products is, at least, comparable with that of similar imported ones if not better. Likewise, you have to reckon with stiff competition from products made by larger, better known enterprises. Obviously, then, you need to take every possible measure to make your products known and accepted. An aggressive marketing policy is, indeed, a must to the small producer.

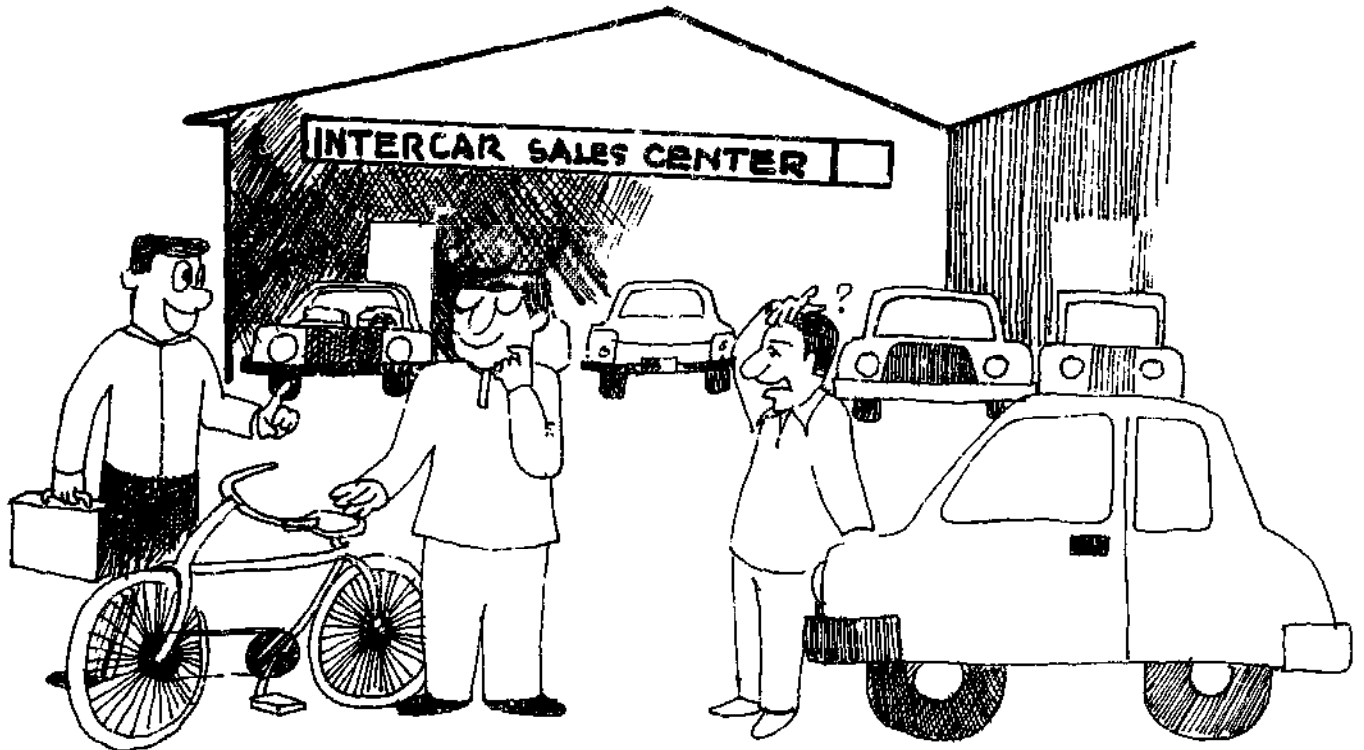


Moreover, the stage of economic development of most developing countries is characterized by dynamic changes and emerging social needs. And it is these changes and new needs that offer opportunities to a businessman who should be able to take advantage of rising income, income redistribution and increasing purchasing power and demand.

So you must be dynamic. Remember that you cannot apply the same selling techniques that used to work say, ten years ago. What used to sell like hot-cakes then may accumulate dust in the store shelves now. In other words, yesterday's winner may be today's loser. Therefore, you have to constantly update yourself with the latest marketing strategies if you want to keep scoring and stay a winner.

One of the latest marketing concepts maintains that people do not buy a product for itself; rather, they buy the expectation of benefits. Very few products are so good that they sell themselves. Perhaps only one in a thousand.

All these underscore the significance of the marketing function. In fact, it is practically the business itself.



INTEGRATED MARKETING APPROACH IN SMALL BUSINESS

Marketing assumes various meanings even among marketing people, depending on their area of marketing specialization. For instance a salesman views marketing as selling; a supermarket manager thinks of it in terms of merchandising or retailing; a product or brand manager sees it in reference to promotions; while an advertising executive's perspective is naturally focused on advertising. In a sense, each of them is right or each is a professional specializing in his particular sphere of concentration in marketing. Together, these spheres make up the complex marketing function.

As a rule, however, because of the built-in limitations of a small business, you cannot afford to hire the services of such specialists. You are, therefore, compelled to carry out the multifarious marketing activities almost singlehandedly, in addition to integrating and coordinating them with the other aspects of your business. Remember that marketing serves as the culmination of your organized and integrated effort to achieve the overall objectives of your firm.



Survival in the business world means being able to attract and hold on to customers by satisfying their needs better than your competitors do. To operate more competitively and successfully, therefore you must view the marketing function this way:

1. Marketing is *customer-oriented*. As owner-manager, you may be the top man in your organization. But in business everywhere the customer is king. Your success, therefore, as a small businessman depends largely on how well you satisfy your customer's needs. In effect, you are not only selling a product or service but, more importantly, satisfying a need. You must focus your attention on what your customers need, not on what product you can make and sell.



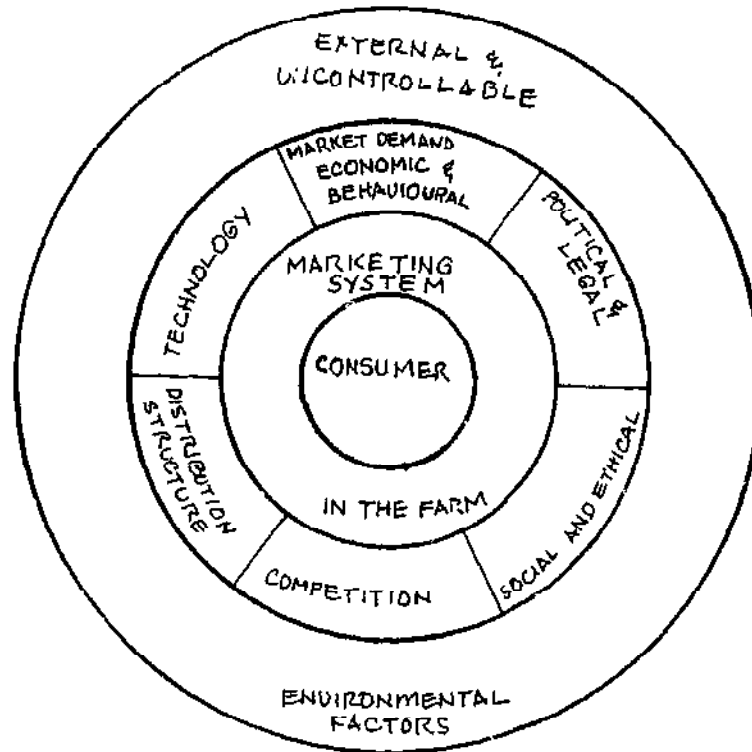
2. Marketing is an *integrated activity*. Marketing is not an isolated function. Any activity or decision is influenced by other factors within the enterprise and from its environment.

For instance, a plan to develop other products greatly depends on the firm's financial resources. Or an objective to attain a greater sales volume has to be balanced with the concern to reduce losses from bad debts. Exhibit 1 gives a framework of the firm's adaptation to its environment. 1/

1/ Stanton, *Fundamentals of Marketing*, 24-29.

Exhibit 1

The External Environment of a Company's Marketing System



The figure above illustrates that the environmental forces greatly affect the marketing decisions of a firm. Although consumer income is the critical market indicator, the general condition of the national economy such as inflationary indices, tax policies, legislative and regulatory measures, technological breakthroughs, social patterns, industry and competitors' practices still influence the demand situation of any product. All these forces may either reinforce or weaken your position in the market. And since you are often caught in the midstream in the process of environmental changes, you should be alert and always on the look-out for opportunities to expand or for clues to slow down and consequently change strategies to avoid bankruptcy.

If marketing is customer-oriented and conducted in an integrated manner, there is a better chance to attain the profit and growth objectives of the firm.

Summing up, the integrated approach to marketing management derives from the philosophy of focusing all efforts on *identifying* and *anticipating* customer needs and *satisfying* these needs with products and services. With this as foundation, you can proceed with the task of integrating and coordinating the following marketing activities:

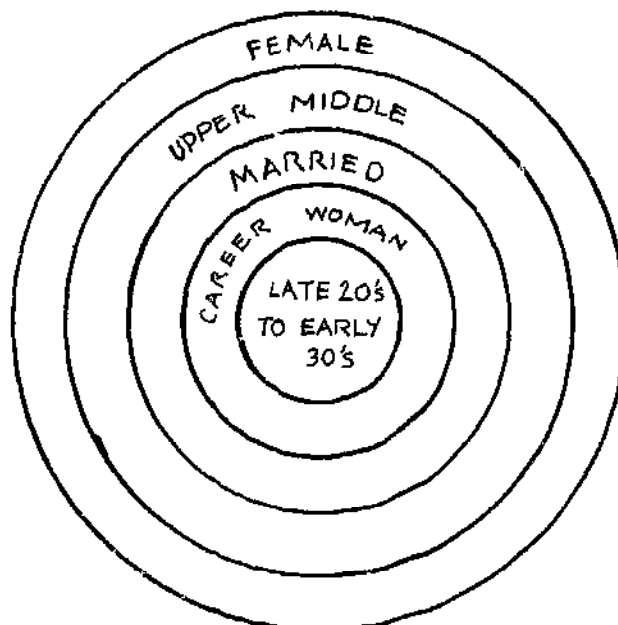
1. Identify and measure customer needs for a specific product or service.
2. Translate these perceived needs into product or service development.
3. Develop and implement a plan to make the product or service available.
4. Inform prospective customers about the availability of the product or service.
5. Stimulate demand for the product or service at a price that will yield a reasonable profit.

UNDERSTANDING THE MARKET

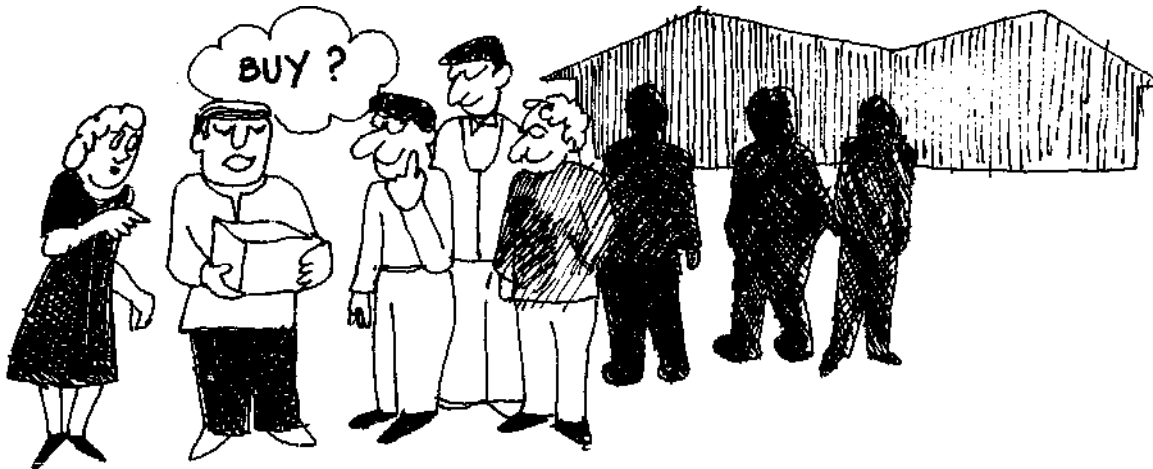
The first step in organizing and planning marketing activities is to know and understand the market. Market here refers to all persons or institutions who buy or may be induced to buy a product or service. The market may be broadly classified into the *consumer market* and the *business or institutional market*.

As a rule, in marketing, you must study the general features of the consumer market to understand your own targeted market. For instance, the Philippines had a population of 36.6 million in 1970 and a projected 48 million population in 1980. The average annual population growth rate for the period 1970 to 1980 is 3.06%. With this information, statistics on the target market can then be obtained. The market is then broken down into specific groups as pertinent characteristics are identified. (See Exhibit 2).

Exhibit 2
Sample of a Market Segment



The illustration shows that the target market gets narrower and more limited as the product or service becomes specialized. Thus the segment of the market targeted behaves in a particular manner - expressing, in the process, its needs and existing or potential desires. In the example in Exhibit 2, the young married career-woman of the upper middle income bracket, who is the potential



customer may be described as busy, therefore, time and efficiency-conscious and willing to pay a premium price to lead both domestic and professional lives harmoniously. If she does the kitchen chores herself, she would prefer easy-to-prepare meals for her family. Thus, this particular consumer is likely to consider buying instant food preparations to save on precious time and effort as she performs her role as working mother.

At what price the product will sell, how it should look or be packaged, where to sell it, etc. are questions that can be answered only if and when the market is studied thoroughly. Understanding potential customers means knowing the answers to the following questions:

- . What does the market buy?
- . Why does it buy?
- . Who buys?
- . How does it buy?

WHAT DOES THE MARKET BUY?

Products and services may be classified as:

Durable goods: Tangible goods which are normally used many times (e.g., clothing, furniture)

Non-durable goods: Tangible goods which are normally consumed in one or few uses (e.g., food, drinks, office and factory supplies).

Services: Activities, benefits or satisfactions which are offered for sale (e.g., repairs, consultancy services).

These classifications have implications for marketing. Products that are consumed fast and purchased frequently (non-durable and services) are likely to be made available in many locations, command a small margin and develop brand loyalty.

WHY DOES THE MARKET BUY?

To market effectively, you have to understand what buyers look for in buying products and services. The reason could be to satisfy varied needs for food, drink, sex, shelter, transportation and prestige in which case you should focus your promotion on how well your products and services can satisfy those needs. Other buyers may also want to get the most out of their money. This would indicate at least two things: that customers buy more intelligently; and that the lower the price of a product, the higher its sales.

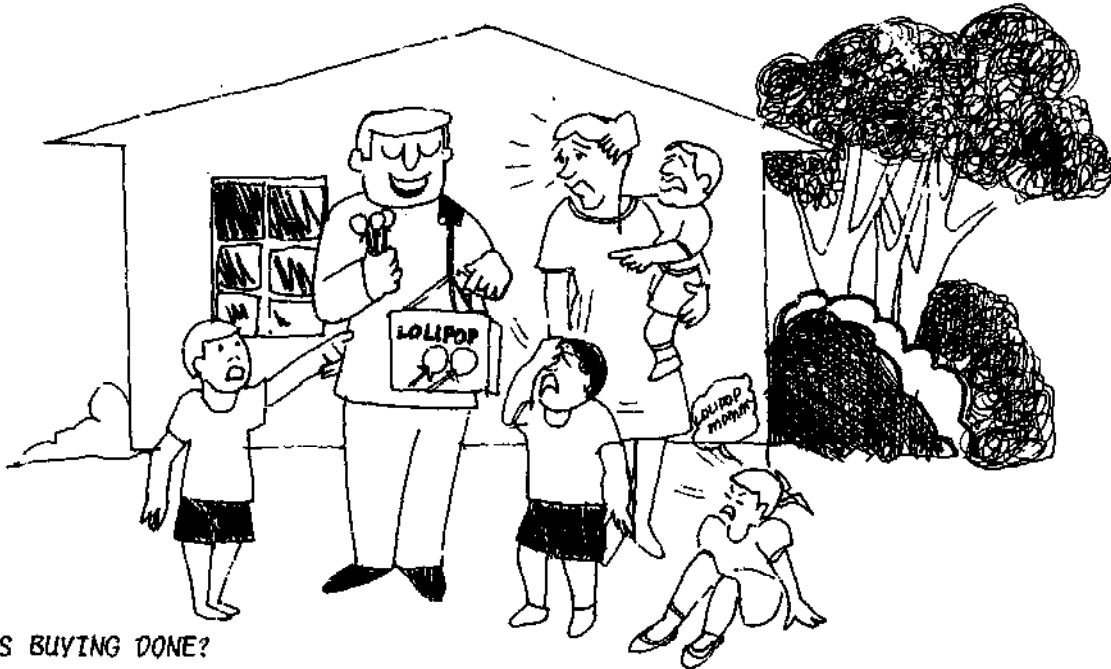
If you are selling to a mother business firm or to an institution, the reasons for buying would be related to more profits, less costs, more productivity or more efficiency.

WHO BUYS?

A major marketing task is to identify who makes the decision in the purchase of the product. For some products and services, there is only one decision maker. For others, more than one person is involved in the buying decision. A person can play one or more of the following roles in the buying process:

1. As *influencer*, a person suggests that the purchase be made and influences the purchasing decision.
2. As *decider*, he ultimately determines whether to buy, what, where, when and how.
3. As *buyer*, he makes the actual purchase.
4. As *user*, he consumes or uses the product or service.
5. As *informer*, he controls the flow of information to the decision-making group.

To illustrate: In purchasing children's books, the librarian may be the informer; the teacher or the child himself could be the influencer; the parent, the decider; the older brother or sister, the purchaser; and the child, the user. Knowing the characteristics of these persons involved, you should direct your marketing efforts towards the decider and influencer. For business and other institutions, the influencer could be the purchasing committee; the decider, the manager; both the informer and the user, the requisitioning department; and the buyer, the purchasing agent.



HOW IS BUYING DONE?

The buying process may be simple (as in buying cigarettes) or complex (as in buying a house) but will usually involve these major stages:

1. *Perception of a need.* The customer's need for a certain product or service (or the satisfaction the product or service gives) is aroused.

Promotional efforts help arouse or intensify the customer's needs. Or the product may be pushed when the need for it is greatest, e.g., ice cream during summer, school supplies at school opening time, raincoats or umbrellas during the rainy season, etc.

2. *Pre-purchase activity.* The customer gathers more information before deciding to buy by asking friends, reading the papers, actually seeing and inspecting the product or comparing prices.

The pre-purchase activity must suggest promotional efforts to dwell on the merits of the products, uniform and competitive pricing, more experienced salespersons or the use of influential persons to encourage or endorse the purchase of the product.

3. *Purchase decision.* This is actually a set of decisions affecting brand, size, colour, quantity, place to buy, etc.

4. *Use of the product.* Knowing who uses the product and how, when, where the product is used can have marketing implications. If, for instance, customers have difficulties in using a product, this may indicate a need for printed instructions to go with the product. Or a jar of food may be used later as a drinking glass, in which case the jar is designed as a drinking glass.

5. *After-sale feeling.* After buying and using the product, the customer may, at one extreme, feel very satisfied or, at the other extreme, feel very disappointed. The reasons for these feelings, negative ones, in particular, should be looked into. If the product is spoiled or defective, there might be a problem in quality control procedures or in the handling and transport of the product.

Any information on the market will definitely affect the major decisions of a firm in other areas of operation: production, finance and personnel. It is always preferable to quantify data. The critical quantifiable information includes size, share, sales, forecast and geographical distribution of the market.

In other words, do some market research. You can begin to do this by talking to your own customers and suppliers. They can furnish you valuable information which you can interpret as leads or guidelines in mapping out your marketing plans.

THE PRODUCT LIFE CYCLE

A product's sales and profitability can be expected to change over in time. According to Kotler^{2/}, all products go through four stages in their lives. Knowing the stages when the change will occur can help formulate better marketing plans. These stages are illustrated in Exhibit 3 and described below.

1. *Introduction* is a period of slow growth as the product is introduced in the market. At this stage profit is minimal.
2. *Growth* is a period of rapid market acceptance and substantial profit improvement. Demand starts to accelerate as the size of the market rapidly expands during this "take off" stage. Competition will enter and the entrepreneur must start convincing the consumer to prefer *his* brand to other brands.
3. *Maturity* is a period of slowdown in sales growth because the product has achieved acceptance by most of the potential buyers. Here, the originator of the product must accept the fact that the market has been saturated and must commence introducing finer differentiations in the product and customer services in addition to offering them the best price level.
4. *Decline* is the period when sales continue a strong downward drift and profits erode rapidly.

^{2/}Kotler, *Marketing Management*, 231-244.

It should be noted that not all products follow exactly the pattern as illustrated in Exhibit 3. Many products fail or decline right after the introductory stage. The sales of some products may increase after the decline stage with more marketing efforts. Some products like basic commodities stay in the growth or maturity stage indefinitely.

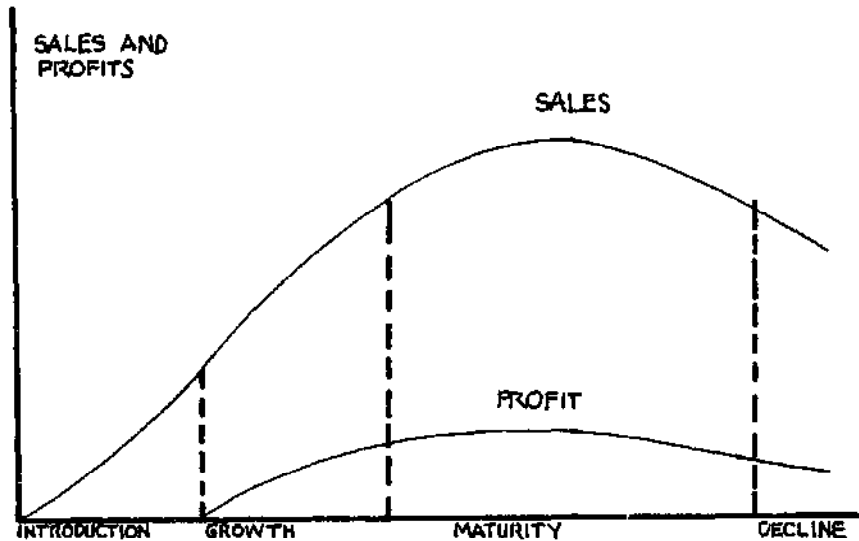


Exhibit 3
Product Life Cycle

PRICING THE PRODUCT

The price of your product is one of your most important marketing decisions. Pricing is a major concern in any of the following situations:

- . When the price is set for the first time: when the firm introduces a new product, sells to new markets or regularly enters bids on contract jobs.
- . When circumstances indicate a price change: when there is doubt whether its price is right in relation to its demand or costs considering such factors as inflation and shortages.
- . When competition initiates a price change and the firm cannot decide whether to change its own price, and if so, by how much.
- . When the firm produces or sells several products that have interrelated demand and/or costs.

MARKETING OBJECTIVES AND PRICING

Before setting the price, the firm should first determine which of the following objectives it will pursue in pushing a particular product:

1. *Market-penetration objective.* Some companies set a relatively low price in order to stimulate the growth of the market and to capture a large share of it. Any of several conditions might favour setting low price:

- a. when the market appears to be highly price-sensitive;

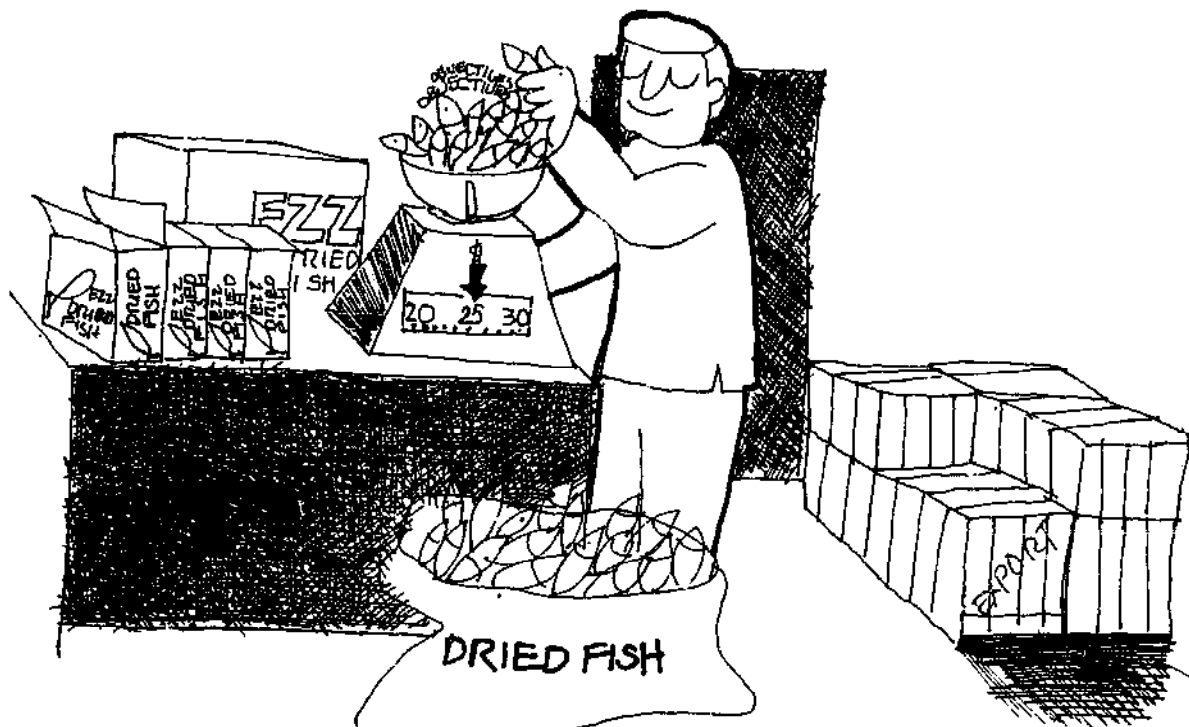
b. when the unit costs of production and distribution fall with cumulated output; or

c. when a low price is intended to discourage actual and potential competition.

2. *Market-skimming objective.* Some firms want to take advantage of the existence of buyers who are ready to pay a much higher price than others because the product has high present value to them. The objective of skimming pricing is to gain a premium price from these early buyers and which will be reduced gradually to draw in the more price-oriented, elastic segments of the market. It is a form of price discrimination over time rather than over space.

3. *Early-cash-recovery objective.* Some firms seek to set a price that will lead to a rapid recovery of cash. They may either be hardpressed for funds or regard the future as too uncertain to justify patient market cultivation.

4. *Satisfying objective.* Some companies describe their pricing objective as the achievement of a satisfactory rate of return. The implication is that although another price might produce an even larger return over the long run, the firm is satisfied with a return that is conventional for a given level of investment and risk.



5. *Product-line promotion objective.* Some firms seek to set a price that will enhance the sales of the entire line rather than yield a profit on the product by itself. An example is loss-leader pricing, in which a popular product is priced low to attract a large number of buyers who are expected to buy the other products of the vendor.

WAYS OF PRICING PRODUCTS

Broadly, there are three methods of pricing products:

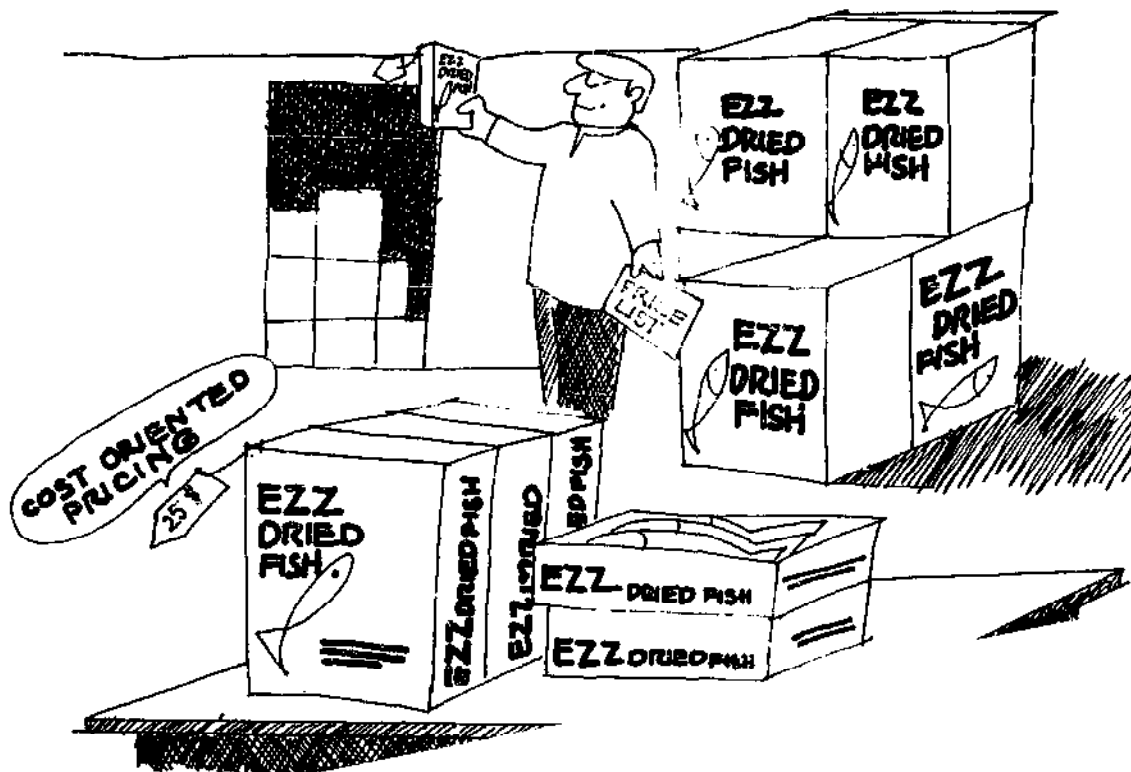
- . Cost-oriented pricing
- . Demand-oriented pricing
- . Competition-oriented pricing

1. *Cost-oriented pricing.* Most firms set their prices largely on the basis of their costs. All costs are normally included with a usually arbitrary allocation of overhead expenses made on the basis of expected operating levels. Cost-oriented pricing is commonly used in retail trade (groceries, furniture, clothing) and in jobs or orders that are non-routine and difficult to cost in advance such as construction work and special machinery.

Some guidelines used in cost-oriented pricing are:

a. Percentage of mark-ups should vary inversely with unit costs. This means that the lower the unit cost, the higher the percentage of mark-up; the higher the unit cost, the lower the mark-up rate. For example, a wooden ash tray costing \$0.50 could be sold for \$1.00 or a 100% mark-up; while a dining set costing \$4,000 could be sold for \$6,000 or a relatively lower mark-up rate of 50%.

b. Mark-up rates should vary inversely with turnover. This means that the more frequently a product is purchased, the lesser the mark-up; the less frequently it is bought, the higher the mark-up. For example, cigarettes and newspapers will have a lower mark-up than appliances like television sets and refrigerators.



2. *Demand-oriented pricing.* Demand-oriented pricing is based primarily on the intensity of demand. A high price is charged when or where demand is strong, and a low price is charged when or where demand is weak even though unit costs may be the same in both cases.

Prices may vary based on the customer. A higher price is charged to an ignorant buyer or a lower price is charged to a hesitant buyer. This practice can destroy customer goodwill in the long run.

Prices may also be based on place, e.g., seats in moviehouses and store spaces for rent.

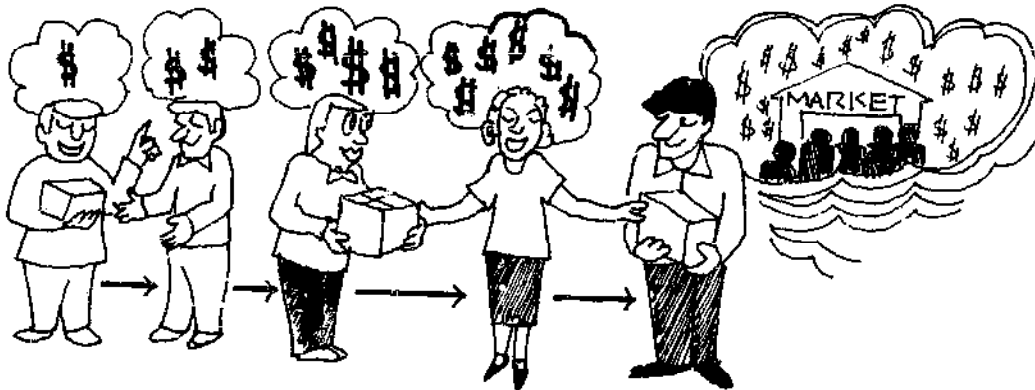
Prices may vary based on time, e.g., seasonal products and drinks during happy hour.

Prices may be based on product versions. Slightly different versions of a product are priced differently but not proportionately to their respective marginal costs.

For example, a box of chocolates with \$2 worth of wrapping materials may be sold for \$20 while the same box of chocolates wrapped in materials worth only \$1 may be sold for \$15.

3. *Competition-oriented pricing.* A firm's pricing is competition-oriented when its prices are determined mainly by what other competitors are charging. The prices need not be the same. The firm may keep its prices higher or lower than the competitor's within a limited percentage.

This type of pricing is usually adopted for competing products that can scarcely be distinguished from one another, like rice, cooking oil, flour, etc. In bidding for contracts, competition-oriented pricing is also appropriate.



CHANNELS OF DISTRIBUTION

Most businesses do not sell their goods directly to the final users. Between them and the final users are various marketing intermediaries - the middlemen. Middlemen play a very important role in marketing especially in small industry because, with their resources, contacts and experience, they can distribute goods more efficiently and economically than if the producers were to distribute their own goods.

Typically, a firm starts as a local operation with a limited market. Since it has limited capital, it normally uses existing middlemen - a few wholesalers, retailers, trucking firms and warehouses. The best way to market is already set. The problem may be to convince one or a few of the available middlemen to handle the products.

If the new firm succeeds, it may seek new markets. Again, the producer will tend to work through existing middlemen. In the smaller markets, the firm may deal directly with retailers; in the larger markets, he may work through distributors.

The choice of channels, among other factors, is influenced by the following characteristics:

PRODUCT CHARACTERISTICS

1. Perishable products require more direct marketing to reduce spoilage.
2. Bulky products, such as construction materials and furniture, usually require channels that minimize shipping distance and number of handlings.
3. Unstandardized products like custom-built machinery and special business forms are usually sold directly by the company because of the difficulty of finding middlemen with the required technical knowledge.
4. Products that require installation and/or maintenance services are usually sold and maintained directly by the firm or authorized dealers.

CUSTOMER CHARACTERISTICS

1. When the number of customers is large, manufacturers tend to use long channels with many middlemen on each level. The opposite is likely to happen when the number of customers is small.
2. The high cost of serving small and frequent orders leads producers of such products as hardware and drug items to rely chiefly on wholesalers.
3. Some customers may be more readily induced to buy products that are well-displayed as in trade fairs and supermarkets.

Don't forget that the establishment of effective channels of distribution is an essential step towards creating a market. It requires you to actively seek out suitable retailers to sell your products. You may select and develop wholesale facilities to provide the necessary services or use your own staff to influence and develop wholesale and retail outlets in the interest of your company and your products.

PROMOTING THE PRODUCT

Aside from developing a good product, pricing it right and making it easily available to customers, you must also promote your product. Promotion is your firm's attempts to stimulate sales by directing persuasive communications to the buyers. You may promote your products through *advertisements* in printed materials, billboards, radio and television, *personal selling*, *free publicity* in the media and other business and social occasions and *sales promotion* via discounts, give-aways, displays, and exhibitions. There is a greater need for promotional activities where:

- . Products are alike and manufacturers want to differentiate their products.
- . Buyer awareness of the product or its features is minimal.
- . Products are in the mature stage and there is a need to maintain market shares.
- . Products are sold on a self-service or mail-order basis.

In fact, other forms of sales promotion have evolved in the past years as more and more competing firms try to outwit one another. Aggressive enterprises have used lecture-demonstrations, fashion presentations, luncheon/dinner shows, television specials, etc. as promotional strategies to stay ahead in the race.

Personal selling has been proven to be the most effective means of promoting products because immediate feedback is obtained. However, it is also the most expensive. To favour personal selling against the other approaches depends very much on the nature of the product and the circumstances in which it is marketed. Personal selling is particularly suited to situations where:

1. The market is concentrated as in capital goods.
2. The product has a high unit value and needs to be demonstrated.
3. The product has to be tailored to individual needs as in certain types of clothing and gadgets.
4. The personality of the salesman contributes to building up a necessary atmosphere of trust.
5. The firm cannot afford to advertise.
6. Products are traded in and trade-in values have to be determined.

Small companies in developing countries find *sales promotion* a suitable means of marketing their products because it is adaptable to limited local situations.

If you want to expand sales in remote rural districts where literacy rate is low and media for advertising lacking, public demonstrations certainly serve as an effective strategy for creating a market. On the other hand, you may attack the problems of promotions in urban centres by providing promotional support to

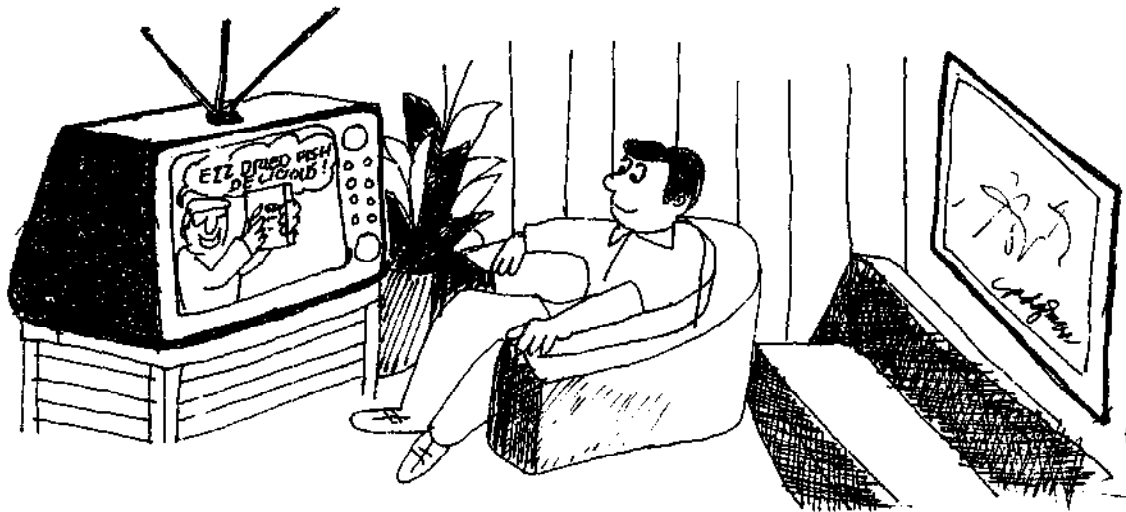
retailers through improved display inside their outlet-shops. Where promoting a particular product requires specialized technical knowledge, you may teach your distributors the uses of the product.

Sales promotion, therefore, consists of a variety of techniques which you can apply to directly stimulate the sales of your products.

A reminder: A good salesman will cost you a lot but a bad one will cost you much more!

To supplement promotional efforts, advertising is resorted to in order to increase sales to the general public.

Advertising is the process of communicating with the public through the mass media. *Media* are the means of communication. Selection of the best media is a very important part of an advertising program. When faced with the problem of choosing medium or media, you have to consider (1) which media are available; (2) which media will reach the target market; and (3) whether the cost of the media justifies the expected revenue.



In determining your advertising budget fix the optimum amount of money to be spent. If you spend more than is necessary, you will lose money not just in terms of wasted dollars but also because you may have been just as well-off had there been no advertising at all. You must therefore take great care in considering the use of radio, newspapers, trade journals, direct mail (if you have an efficient postal system), handbills, or even attractive displays. The telephone is another potential selling tool.

Advertising budget may be determined by allocating a certain percentage of sales, a fixed amount or simply what the business can afford. Unless you have sufficient background in advertising, don't attempt to do your advertising copies yourself. Consult or hire competent professionals or advertising agencies.

The traditional function of packaging is to protect goods while in stock or in transit. Nowadays, protection is mainly the objective of *packing* while *packaging* has lately taken on a more sophisticated role in addition to *protection* and *economy*. The consumer is the primary consideration in terms of *convenience*. Products come out in various size options and packages that are easy to open, handle or carry. Another modern concept of packaging, especially of consumer goods, is the *promotional function*. This entails several elements of the package design, namely: size, shape, materials, colour, text and brandmark.

POST-SALES SERVICE

Marketing does not end with the sale nor even after the delivery and payment of the goods have taken place. Many businessmen succeed in their promotional strategy by emphasizing the quality of their products and assuring the consumer that the good(s) he purchased will remain functioning or serviceable in the case of durable goods. As regards perishable goods, you should guarantee the freshness or replacement of the product. In fact, you should keep tab of complaints to know exactly how you can improve either the quality of your product or your marketing services as a whole.

Post sales service becomes even more critical when:

1. The unit price of the product is high.
2. The product is purchased infrequently.
3. The product is complex as seen by the consumer.
4. The buyer does not have much knowledge of the product.
5. The seller's share of the market is small or the product is not well known.

You should also take into account the specific laws and regulations as well as standards affecting particular products notably restrictions on food and drug manufacture.

EXPORT MARKETING

Are you considering export marketing? If you are, you have to look first at the awesome competition from firms in highly industrialized as well as that from other developing countries. Marketing of high quality and low-priced goods are the prevailing advantages of seasoned exporters who most likely operate large marketing networks.

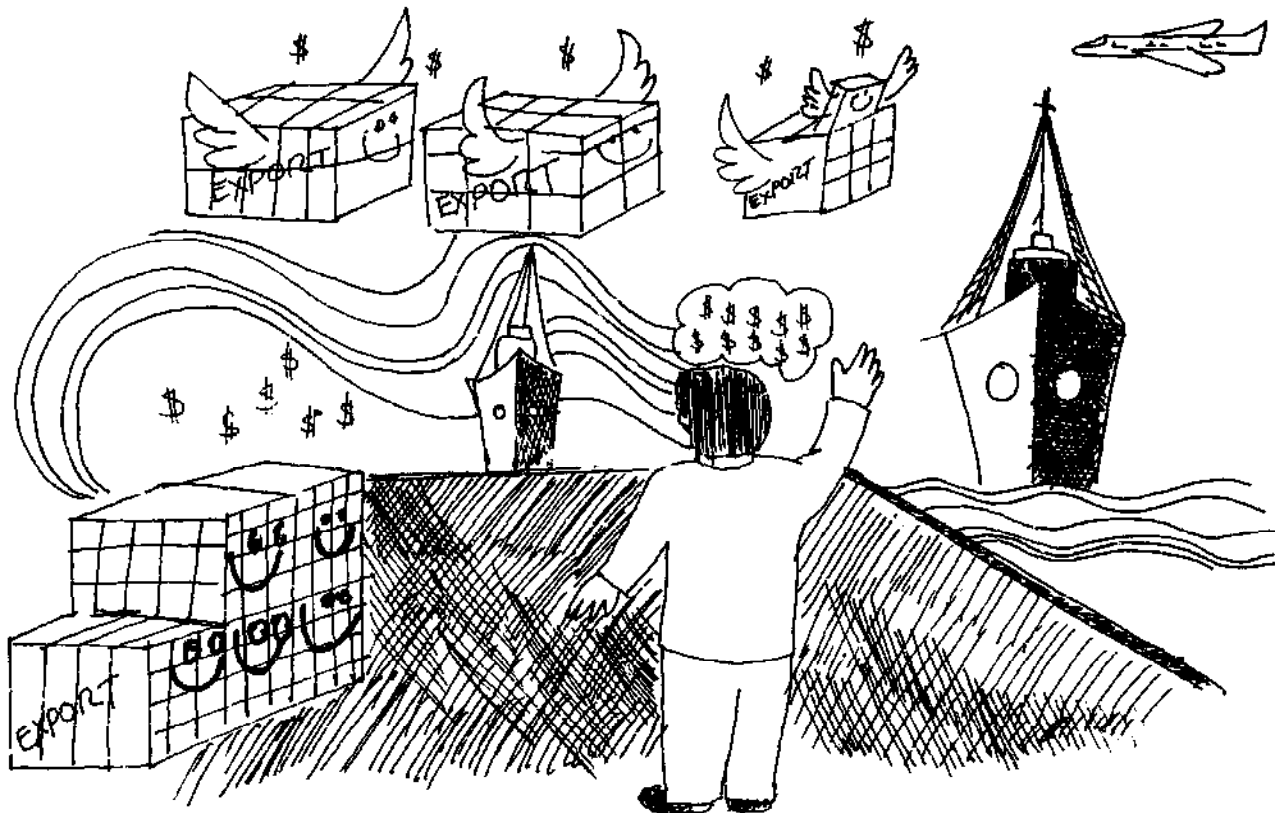
A second consideration is the fact that tastes and needs differ from country to country and you may not be able to afford the costly introduction of variations into your goods.

Thirdly, the question of promotional literature in the language or even languages of the countries is something to reckon with.

The fourth factor in considering exporting is the existing and acceptable system of distribution. Unless your firm is producing some product which is very unusual and in great volume, it is usually preferable to export through trading houses which are more knowledgeable in the import-export complexities. The effort in exporting directly may not be worth the returns and satisfaction of both parties. Export markets present their own special characteristics and problems. Remember that exporting presents very complex and intricate documentation procedures, and varied unforeseen extra expenses.

Your operations in the foreign market largely depends on how well you can integrate with the local environment in terms of familiarity with the given market, the maturity of economic development in the foreign nation and the country's political stability.

In general, an exporter follows seven (7) major phases in processing his papers from organizing for export to liquidation of undrawn proceeds. Although certain circulars, presidential decrees, reorganizations and other regulatory measures may be introduced or implemented in the course of time, the activities identified in the flow chart (Exhibit 4) stand as basic inputs in export documentation.



CONCLUSION

To recapitulate, let us go over the marketing mix package consisting of the interrelated activities that require coordination and integration. These activities, categorized into controllables and uncontrollables, are presented as marketing-relevant variables that affect the small entrepreneur's decisions.

(See Table 1)

Exhibit 4
Export Procedure Flow Chart

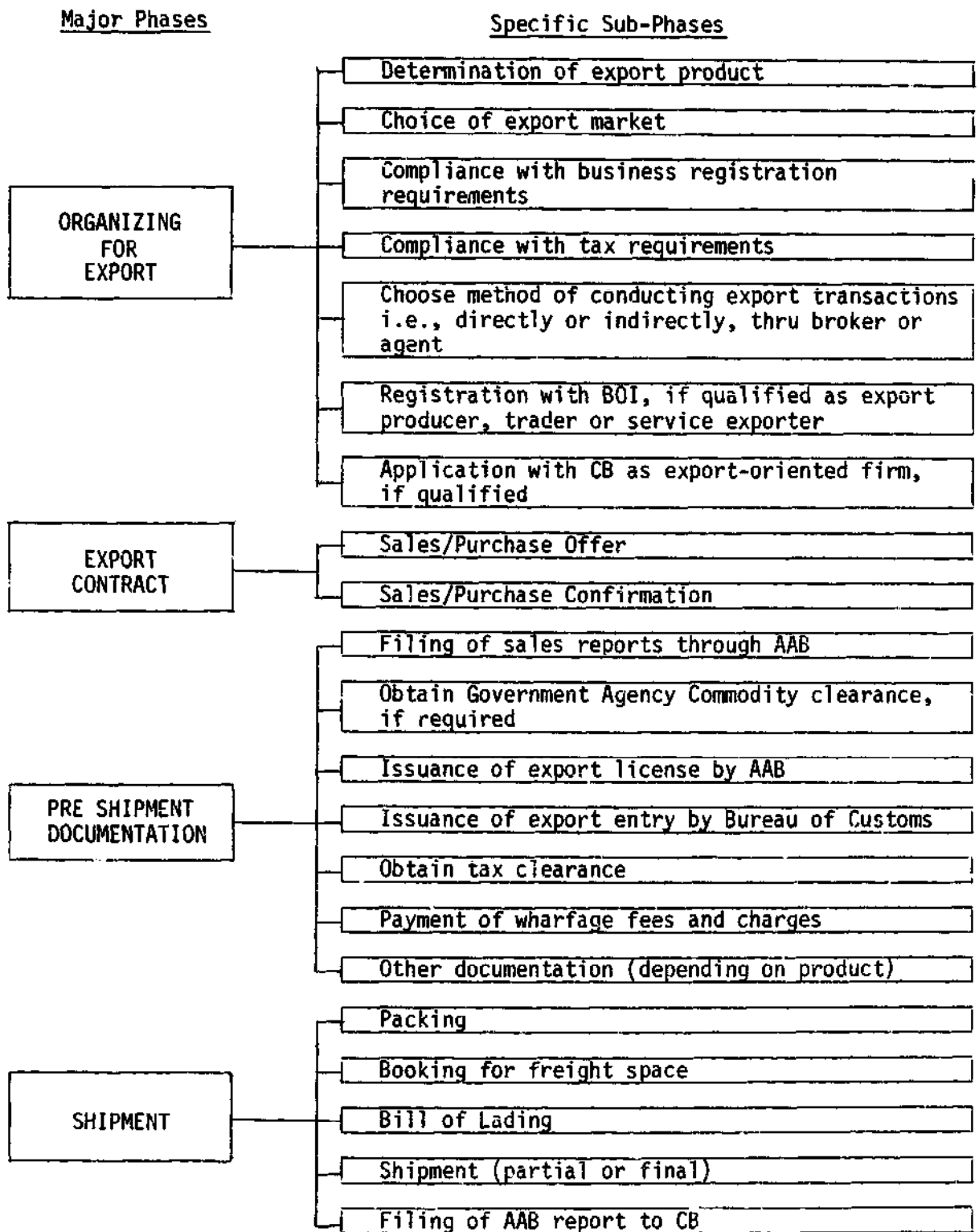
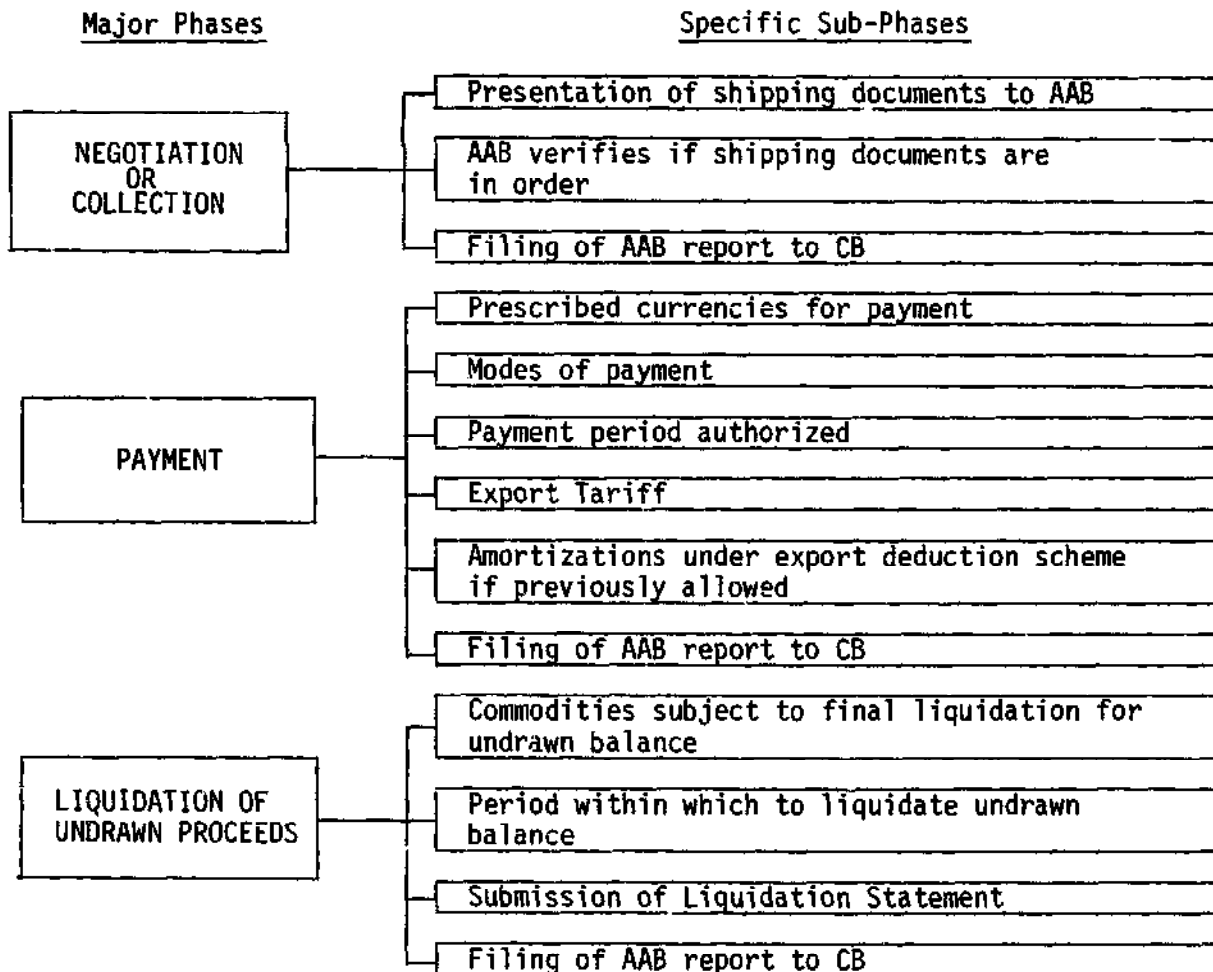


Exhibit 4 (con't)
Export Procedure Flow Chart



LEGEND:

BOI - Board of Investment

CB - Central Bank

AAB - Authorized Agent Banks (commercial banks are AAB of the Central Bank)

SOURCE: Villafuerte, Luis R. *Export Regulations (Central Bank of the Philippines)*.

Table 1
Marketing Decision Variables

Controllables	Uncontrollables
Target market segments on which the firm's effort is concentrated:	Resource availability
<ul style="list-style-type: none">. location or geographic area. target customer. timing	<ul style="list-style-type: none">. availability of required materials. cost and quality of required materials
Product(s) or service(s) offered:	Competition
<ul style="list-style-type: none">. type of product or service. range of products or services. design features. quality standards	<ul style="list-style-type: none">. direct competition. indirect competition
Price	Economic conditions
<ul style="list-style-type: none">. price level. price variability (discounts). price maintenance	<ul style="list-style-type: none">. total market size. economic trends. income situation
Advertising and Promotions	Socio-cultural conditions
<ul style="list-style-type: none">. advertising level. advertising media. advertising image. sales promotions	<ul style="list-style-type: none">. societal values affecting consumer behaviour. life style. fashion consciousness. consumer preferences
Distribution	Political and legal conditions
<ul style="list-style-type: none">. distribution channels. types of distribution. number of sales outlets. warehousing facilities. inventory levels	<ul style="list-style-type: none">. political risk situation. legal regulations. power of regulating agencies
Servicing	Technological situation
<ul style="list-style-type: none">. extent of servicing. service facilities	<ul style="list-style-type: none">. state of technology. rate of technology change
Packaging	
<ul style="list-style-type: none">. utility function. marketing strategy	

CHAPTER VI

PRODUCTION AND OPERATIONS MANAGEMENT

The production function in a small manufacturing firm is compared with a little "black box" requiring a set of inputs and in turn yielding a set of outputs. Inputs include raw materials, machinery and equipment, manpower, methods and utilities, while outputs may be in the form of goods or services.

Deciding the production system to use is crucial to the small manufacturer because he has a limited margin for strategic error. Depending on the operational requirements of his plant, he may employ intermittent or continuous production; or job-order, mass, or process production.

Other vital decisions that the small entrepreneur makes as production manager include the selection of an appropriate plant location and choosing the plant layout. He must also be concerned with setting up production sub-systems, notably materials management and inventory control, quality control and production planning and control.

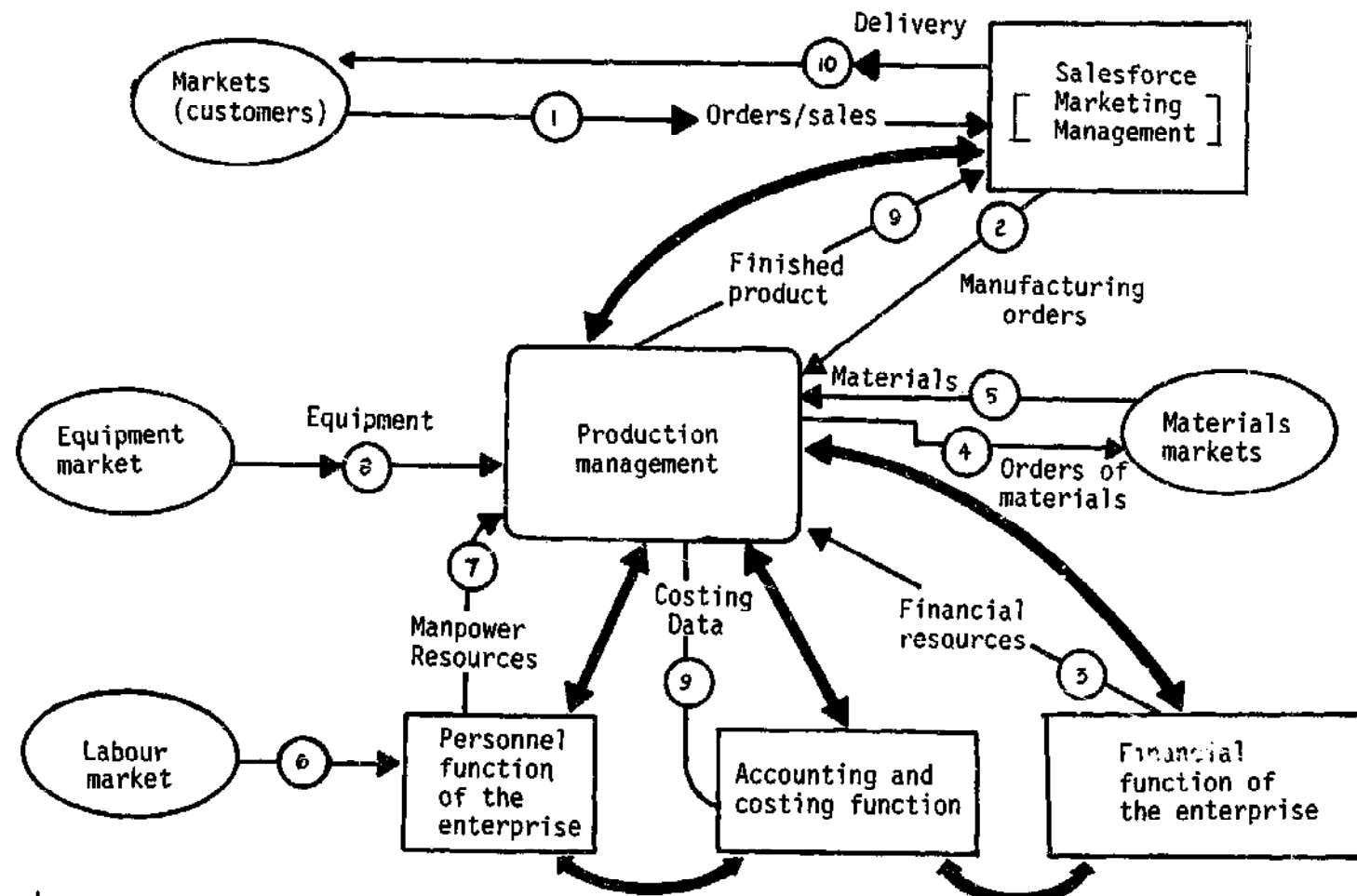
To attain a high degree of productivity, the entrepreneur should strike an optimum balance in the use of his resources.

INTRODUCTION

Production and operations management refers to those activities involving planning, organizing, directing, integrating, controlling and evaluating the entire process of "creating" goods and services at the "right" cost, time, quality and quantity. The production function is to the small enterprise as the engine is to the automobile. Production keeps your firm in constant motion to attain your primary objective of delivering "convenience" to your customer through your products. As a function, production and operations management is integrated with the other functional areas of the small enterprise. The overall relationships of production and operations management with the other functional areas of the firm is shown in Exhibit 1.

Thus, it can be observed that the production function is closely integrated with all the other functional areas of the small enterprise and must never be treated as an independent system in itself. The organizational system continually attempts to "orchestrate" or integrate all the activities of the various functional areas in order to ensure the attainment of the firm's or entrepreneur's goals.

Exhibit 1
The Relationship of Production with the Other Areas of the Firm



Legend:

Segments or Areas of the Firm
 External factors
 → Sequence

Note: Feedbacks have been eliminated to simplify presentation.

You are familiar with the time-honoured conflict between production and marketing people as to which of them dictates what the company produces or sells. This dilemma may or may not be present, depending on the stage of development of the small enterprise. It does not occur where both production and marketing functions are directly assumed by the owner-manager. Subsequent growth and expansion, however, may result in the separation of these functions and the conflict becomes almost inevitable. The scheme shown in Exhibit 1 will be useful in delineating the production and marketing functions and resolving the dilemma between them.

Production and operations management may look deceptively simple at first but it is actually a critical area which you should manage properly.

Poorly-managed production gives rise to a number of problems which may be broadly categorized as follows:

1. *Planning-related*: This type of problem occurs when you fail to plan adequately for your production. Common symptoms of this problem include inability to deliver at the right time and quality; failure to meet customer specifications; lack of room for physical expansion in existing plant sites; and many others.
2. *Control-related*: Lax or inadequate control in production causes such problems as high rejection rates, low production, high raw material inventory or frequent stockouts, high cost of labour, considerable pilferages, spoilage of raw materials, etc.
3. *Productivity-related*: Small enterprises have inherent disadvantages in terms of limited, therefore uneconomic, scale of operations. This limitation leads to the problems of sub-optimal outputs and underutilized inputs. Productivity-related problems are indicated by the following symptoms: extreme dependence on fast-depleting indigenous raw materials; excessive labour costs; low output per worker compared to other firms of similar sizes in the industry; etc.
4. *Organizing, directing and integrating-related*: This refers to those difficulties that compound the already-complicated role of the entrepreneur who is often not only general manager of the business but purchasing manager, overall supervisor, financial comptroller, marketing manager, and treasurer as well. The demands of the production and operations management functions on the entrepreneur's time can be reduced or expanded, depending on how well he handles these organization-related issues. Some of the more common complaints are: "I have to explain to all my workers how this could be done;" "My supervisors cannot concentrate on supervising because they, too, are our most efficient machinists;" too much chasing around the plant facilities; etc.
5. *Technology development-related*: To ensure the survival and maintain the viability of the small enterprise, the entrepreneur must not only be concerned with productivity-related issues but also constantly adapt to technological developments either in terms of software (management know how) or hardware (machinery and equipment).

The following discussion will not provide wonder drugs to cure all these production-related problems. Rather, it will suggest guidelines in order to avoid or minimize the ill-effects of these problems as well as to promote awareness of the options or solutions available to you as entrepreneur-manager.

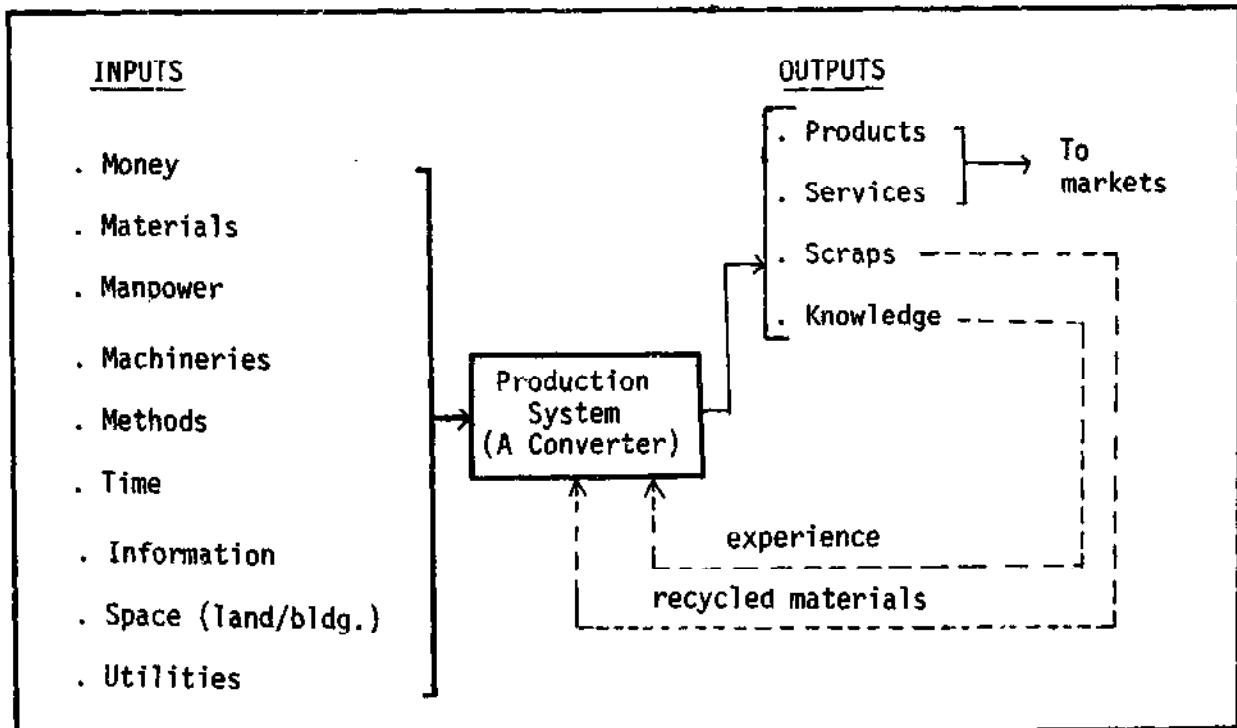
THE PRODUCTION FUNCTION AS "BLACK BOX"

The production function in a small manufacturing firm may be viewed as a "black box", continually requiring a set of inputs and in turn yielding a set of outputs. (See Exhibit 2)

The black box approach to the production system would simplify the description of the various processes or conversion schemes. Thus, if you would like to consider a garment manufacturing enterprise, it is possible to itemize the various required inputs, like textile materials, thread, sewers, electricity, etc., to generate the required outputs, i.e., children's wear, without initially going into the details of the various steps of converting the raw materials into finished products.

Exhibit 2

The Production System as a Black Box



It can be observed from the above that you, as the small manufacturer, must continually provide the much-needed resource inputs to sustain continuous and profitable operations. Some inputs of the firm may be considered as "one time" or fixed (e.g., land, building, machinery and equipment) on which you usually make investment only once and often at the beginning of your manufacturing operation. Other input requirements, like raw materials, manpower, methods, time, utilities, information, etc. are continuing or recurring in nature and would therefore, demand more attention from you. You should also be concerned with the interactions of the various inputs with one another as they move in to the "conversion process."

Essentially, a small enterprise yields two major outputs from the set of inputs: *products* and *services*. You will, nevertheless, be interested in two other outputs, namely *scraps* and *knowledge*. Scraps because of the growing concern for waste utilization and anxiety over fast-depleting natural resources. And knowledge, because you need to develop technological capabilities among your workers to ensure long-term survival. Knowledge acquired in the process of creating goods and services can be fed back into the production system in the form of collective experiences to support the technological build-up process.

In orchestrating the basic inputs for the processes of "creating" goods and services you should bear in mind the principles earlier discussed in this handbook, namely:

1. *Plan* your fixed or "one time" inputs (i.e., land, building, machineries, etc.) properly. These inputs require rigorous and meticulous planning, since initial flows can be very expensive to correct in the long run. Likewise you must plan your recurrent inputs (i.e., manpower, materials, etc.), continually adjusting the firm's business goals and determining ways of attaining them.
2. *Organize* the manpower inputs. A simple and highly flexible organization set-up will help you achieve your company's goals and objectives. Similarly, you must organize other inputs like materials and utilities to conform with the methods of processing them.
3. *Activate* the plant organizational set-up, methods, procedures, etc., by continually motivating, communicating and integrating all the required inputs to produce the specified outputs most efficiently.
4. While in the process of organizing and activating, *control* input resources to ensure their effective utilization.
5. Finally, periodically *evaluate* the performance of all the resources and systems used not only in production, but generally, in attaining company objectives. In the process you can make adjustments as necessary in order to ensure the long term survival of the firm.

Most of these principles will be discussed in some detail and in applied manner — that is, insofar as they relate to the production and operation function of the small enterprise.

PRODUCTION ALTERNATIVES

PRODUCTION SYSTEM

Have you considered which type of production system to use in your manufacturing operation? Be sure you don't decide rashly. For you, who are a small manufacturer, this decision is crucial because you have very limited margin for strategic error.

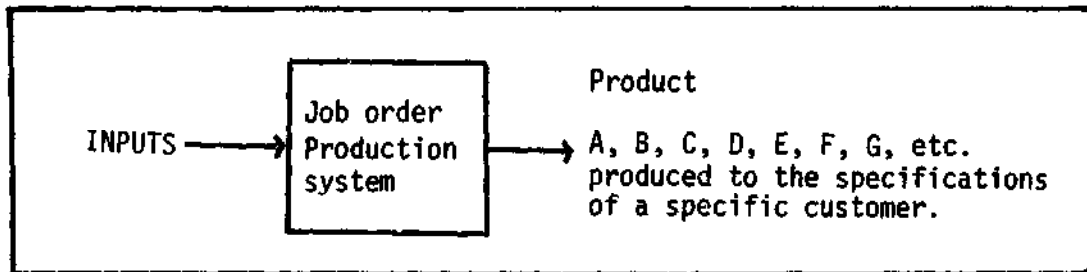
There are various options open to you when you decide on the type of production system to use. Generally, these options can be classified into two broad categories: *intermittent* and *continuous*. The intermittent production system is one that is simply responsive to specific orders or buyers while the continuous production system is one where the enterprise manufactures to stock (that is, even without a buyer at a given time).

The intermittent system may be further sub-divided into the *job-order* type and *traditional mass production* while the continuous system may be broken down into the *modern mass production* and the *process type*.

Job-order or service type: This is commonly employed by service enterprises and highly "customized" factories or those firms that manufacture products based on the specialized requirements of a specific customer. Examples are custombuilt furniture making, tailoring shops, auto-repair shops, auto-spares reconditioning shops, appliances repair shops, etc. Schematically, a job order or service type of production system can be represented as shown in Exhibit 3.

Exhibit 3

Schematic diagram of a job order production system

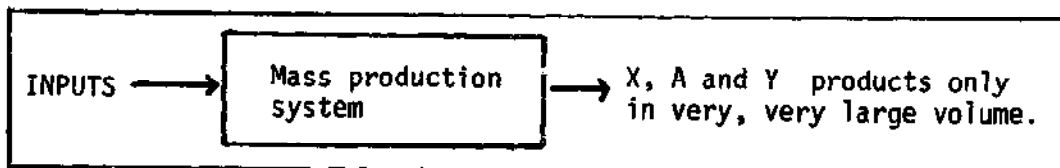


This type of production system is characterized by small-sized volume per job order, the employment of highly-skilled and multiple-skilled workers and the extensive use of "general purpose" machineries and equipment. Because it deals with widely-varying product designs, the enterprise employing this type of production system usually has low-productivity problems, is unable to attain specialization, and experiences considerable fluctuations in its manufacturing timetable.

Mass production type: This is employed by firms which produce uniform products in large quantities for specified markets. There are two versions of the mass production set-up. One attempts to produce the few product lines in large volume. This is exemplified by the garment manufacturer who produces collars, cuffs, front parts, sleeves, etc., separately in hundreds or so which are then assembled in the final stage. This version of the mass production set-up can be illustrated as shown below:

Exhibit 4

Schematic diagram of mass production system (Version A)



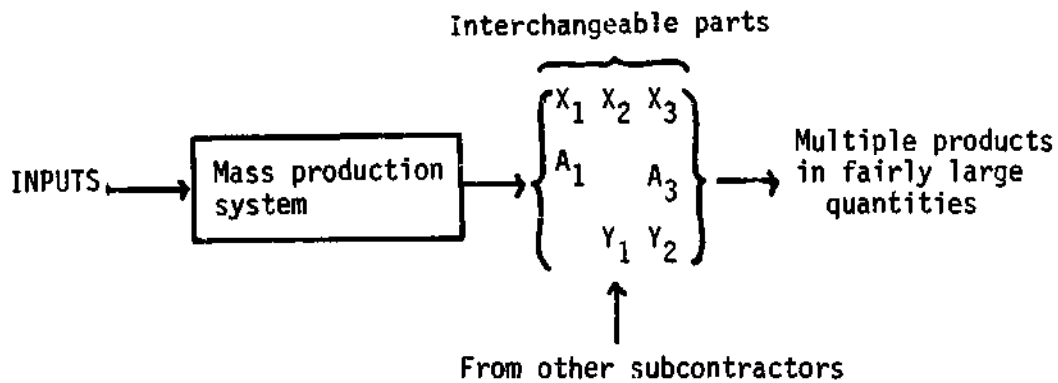
Firms employing this type of production system are characterized by large volume of production per product, high degree of specialization in labour force as well as in machineries/equipment employed.

The other version requires the production of intermediate outputs or parts which can be interchanged to produce various lines in large quantities. An example of this type is the furniture manufacturer who employs subcontractors to produce some parts of the products and combines these to form the final products. Another way of illustrating this is by citing the manufacturer who makes use of "completely-knocked-down" (CKD) furniture manufacturing process.

This version of the mass production system can be represented by the diagram shown in Exhibit 4-a.

Exhibit 4-a

Schematic diagram of mass production system (Version B)



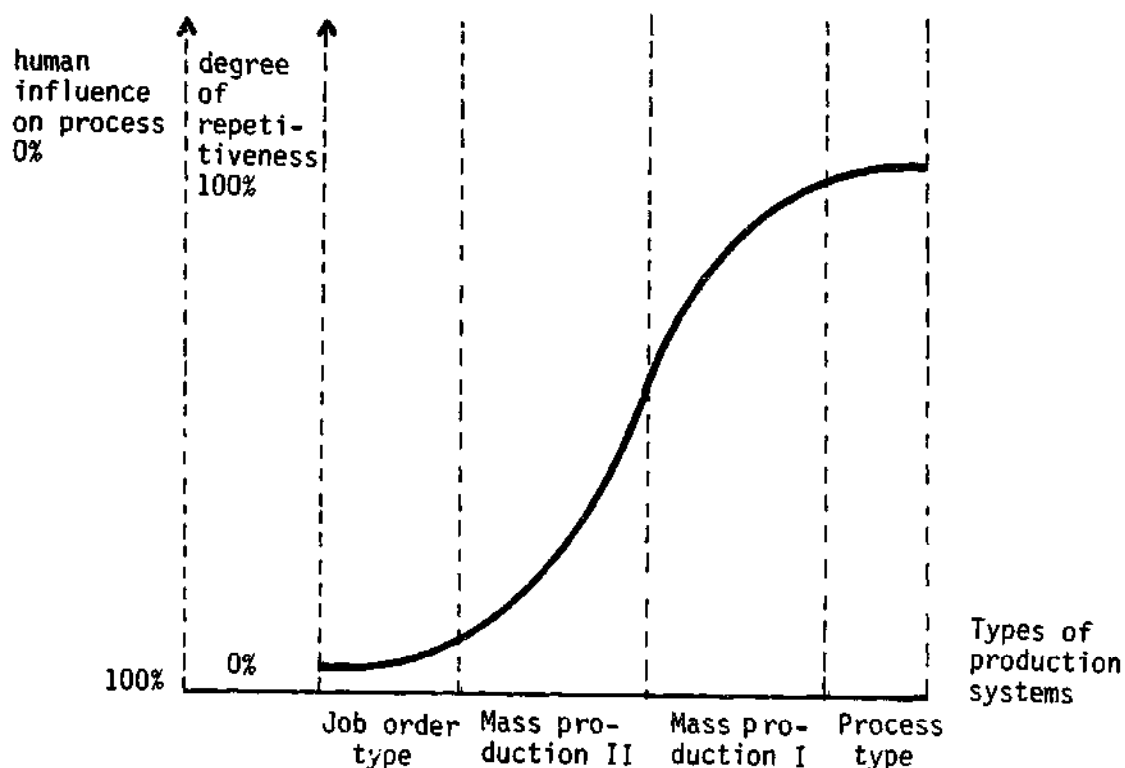
Although this version of the mass production type has not gained enough popularity in the case of small and medium enterprises within the TECHNOMET region, it can be observed that firms employing this system would have the advantage of catering to small-sized orders and large volume of production.

Process-type: This is used by firms producing a specific product with very little human interference in the process. Examples include mining, processing, milk and dairy products processing; food processing, food condiments processing, etc.

It becomes apparent from the preceding discussions on production system that your choice will greatly depend upon the type, requirements and characteristics of the markets you serve, the type of products produced, the processes required and the potentials of your firm for market and production expansion. In making your decision, you should consider the *degree of repetitiveness* of the products required and the *degree of human influence* in the process to be used (See Exhibit 5). From here, it should be reasonably easy to choose the appropriate system to use.

Exhibit 5

Types of Production Systems, Their Degree of Repetitiveness and Human Influence on the Process



The selection of the type of production system to employ is a strategic decision. Needless to say, shifting from one system to another can be very expensive and time-consuming. A furniture manufacturer in Thailand, which started as a job-shop catering to specific and limited customers in the domestic market, will require a large infusion of capital, technological knowhow and a sizeable amount of "management" inputs to be able to export teak furniture to the European markets. This situation, evidently, is critical. Essentially, this will call for a "happy" compromise between the entrepreneur's short-term goals (limited market, fast investment payback, gaining enough experience and knowhow, etc.) and his long-term goals (export market, quantity in volume and not in number of product lines, rationalization of production facilities, etc.). He should likewise deliberate on product or product lines to be manufactured, initial capitalization, target markets and their characteristics and available technology.

PLANT LOCATION

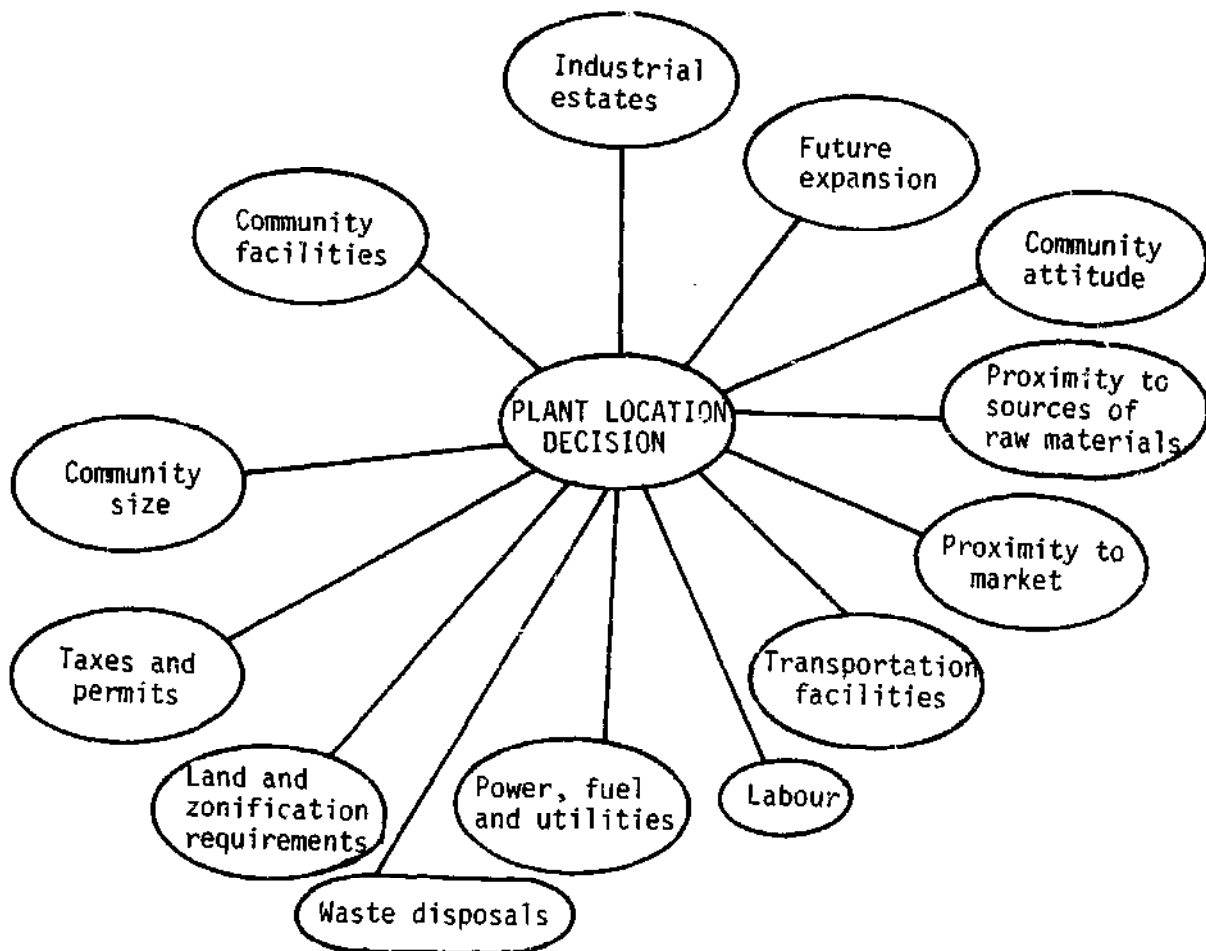
Determining where a production system or a manufacturing plant will be located is another strategic decision that entrepreneurs face periodically, since products, processes, markets and sources of materials are constantly changing. A plant that is located in a once desirable area may suddenly find itself cramped for space or

forced to take on high costs of deliveries because the markets or the raw material suppliers have moved. Since it is costly to move or relocate, site selection is a long-term commitment so much like the decision involving the choice of the type of production system. Indeed, no location can permanently guarantee success; but definitely, some locations inhibit success. Thus decisions on location should always seek to determine desirable and undesirable aspects of a location alternative.

The major criteria for success is that the ideal location is "one where the unit costs of manufacturing and distribution are at the minimum and where prices and volume of sales will generate maximum profit." The various factors, tangible and intangible, quantifiable and unquantifiable, are itemized in a diagram to facilitate location decisions (See Exhibit 6).

Exhibit 6

The Plant Location and Decision Factors



Generally, these factors tend to affect the unit cost of manufacturing and distributing the output of the firm, as discussed below:

1. *Proximity to sources of raw materials.* The acquisition of bulky raw material inputs can be very expensive if the plant is located very far from their source.
2. *Proximity to market.* Similarly, the distribution costs of the finished products will be greatly affected by the plant's proximity to its most important market sites.
3. *Transportation facilities.* The cost of transporting, as well as the availability, reliability and frequency of transport services in and out of the chosen site is an important consideration.
4. *Labour.* Labour costs, which vary from place to place within the country, is certainly an essential factor. You must take into account training costs, recruitment costs (in the critical skills, most labourers would require advance payments), attitudes toward work, quality of workmanship and the like.
5. *Power, fuel and utilities.* Likewise, the cost of these usually vary within a country. In addition to cost, you should also be concerned with the reliability, quality and frequency of the available supply of power, fuel and other utilities.
6. *Waste disposal.* Although this factor may look deceptively insignificant, process types of production systems may incur considerable costs in disposing waste.
7. *Land and zonification requirements.* The availability, cost and quality of land as plant site is a major concern in locating your production system. Here, you need to reckon with zonal requirements which have been newly introduced in most developing countries. Plants situated in a once "good" location may find itself in a residential zone after five years. Relocating in this case will be very expensive.
8. *Taxes and permits.* The types and costs of the taxes, licences and permits to operate a small manufacturing concern vary from place to place.
9. *Community size.* The plant should be located within or very close to an appropriate size of a community to minimize additional expenses of providing housing facilities for the workers, transportation services, etc.
10. *Community facilities.* The facilities available within a certain community must likewise be considered, including medical facilities (how far is the plant to the nearest first-aid clinic), recreation, religious (mosques, churches, etc.) and entertainment facilities.
11. *Industrial estates.* As a rule, you should favour staying within or close to an industrial estate. The estate is composed of plots of land or constructed factories equipped with necessary services and utilities, where you can come in, hire your men, set up the machine and start commercial production. If you locate within an industrial estate area from the perspective of plant location, you will hasten the process of installing the plant and enjoy added benefits of "linking" with the other manufacturing plants in the area.

12. *Future expansion plans.* In deciding plant location, reserve a portion of the area for future expansion activities.

13. *Community attitudes.* Here attitudes refer to the summation of the values, traditions, or pre-dispositions of a certain community with regard to business undertakings. Sometimes, community attitudes can be dysfunctional to the business: "We don't like to have a coffin manufacturing company here; it's just bad luck for the community." Or attitudes can be reinforcing: "Your project is precisely what the community needs in order to profitably utilize what were once thought of as waste materials."

When faced with a plant location decision, consider the following options:

- . Locate - - in a place already owned by the industrialists (footloose method).
- . Locate - - in an existing cramped location but expand vertically.
- . Locate - - in an entirely new space.

A metalworking entrepreneur in Sri Lanka, for example, who specialized in duplicating and repairing auto spares, recalls that he located his firm in its present site because he thought owning the property would automatically lead to a cheaper cost of production. In 1978, however, the firm decided to shift to sheet-metal parts fabrication in spite of the distance of his existing location from the ports which is the landing site of sheetmetal materials. Although this was not much of a problem in the beginning, the increasing volume of production and the fast-rising cost of fuel prompted the company to look for another more appropriate site.

An effective way of dealing with a plant location decision in small enterprises would be to use the checklist in Exhibit 7. This checklist will enable you to consider all the alternatives available using the factors to be considered in their totality. The factors have been subdivided into "quantifiable" (where numerical data could be found to substantiate the decision-making process) or "non-quantifiable" (where use of subjective approaches are needed to arrive at the decision). It should further be noted that sometimes just one criterion - and it could even be a minor one - could outweigh all the others in deciding about location, depending upon the nature of the enterprise's operations and the value system as well as the viewpoint taken by the entrepreneur.

PLANT LAYOUT

As soon as you have decided where to locate your production system your next important task would be to consider the physical arrangements of plant facilities. These include working space for operating equipment, production personnel, indirect workers and other support services, as well as space for materials movement and storage areas. This set of activities performed to attain the most efficient and economical physical arrangement of the plant is known as *plant layout*. Remember that a good plant layout:

- . Provides the most advantageous and economical work flow.
- . Reduces material movements to the minimum.
- . Spots and effectively utilizes all available spaces.

Exhibit 7

Checklist for Plant Location Decision

A. QUANTIFIABLE FACTORS	ALTERNATIVES				REMARKS
	1	2	3	4	
1. Cost of raw materials acquisition (per unit) 2. Cost of delivery of raw materials to . City A . City B . City C 3. Average labour costs 4. Costs of permits, licences etc. per annum 5. Handling costs: . Materials . Finished products 6. Land: . Costs (acquisition) . Rental . Taxes, improvements 7. Utilities costs . Water . Electricity . Others 8. Others Totals Per unit cost of production					
B. NON-QUANTIFIABLE FACTORS 1. Community attitudes 2. Industrial estates 3. Community facilities 4. Community size 5. Potential as a growth center					
Note: For non-quantifiable factors, the following subjective criterion can be used to rate the desirability of a location: A - Excellent B - Very satisfactory C - Satisfactory D - Fair E - Poor F - Very poor					

- . Is flexible and provides room for adjustment.
- . Reduces delays and work stoppages.
- . Facilitates the maintenance and repair of machineries and equipment.
- . Improves control and supervision within the shop.
- . Maximizes the satisfaction and safety of the workers.

A metalworking firm in Bangladesh, originally established to fabricate selected bicycle parts, later diversified into production of metal household parts like door hinges and window panes. In so diversifying, the entrepreneur forgot to adjust his physical fabrication facilities accordingly. It took two industrial extension officers to diagnose the root cause of his low productivity: very poor layout.

There are basically two types of layout arrangements: the *process* and *product layouts*.

Process layout

In layouting by process, all machines performing similar tasks or processes are grouped together in one area or department. An example of this type of layout is the medium-sized machine shop, which lays out all the drilling machines in one area and all the lathes in another. This type of layout is commonly employed by companies using the intermittent type of production and those producing a limited number of products.

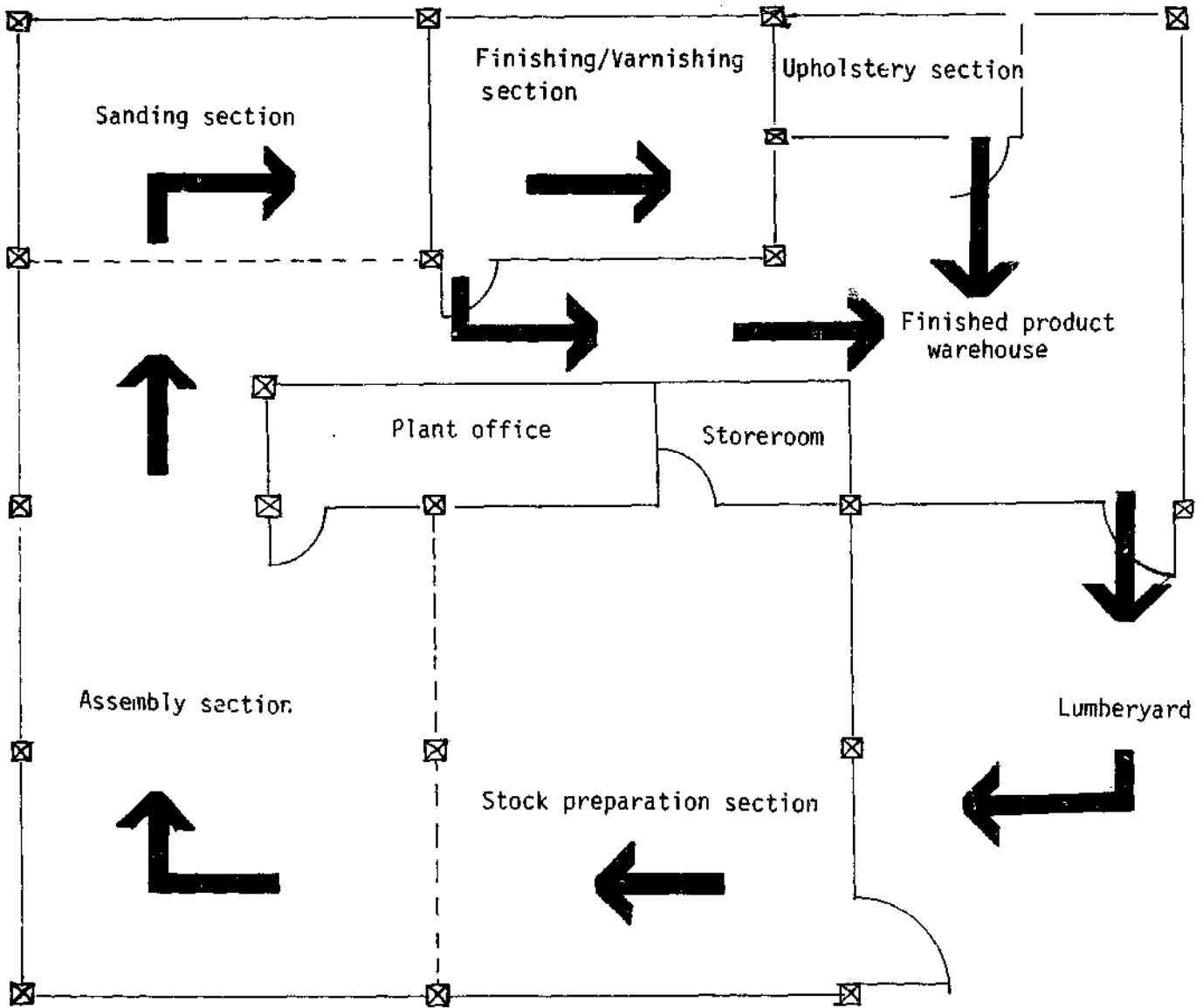
If a standard product is not produced in large quantities, layout by process is usually more desirable because of the flexibility it allows. Exhibit 8 illustrates a furniture manufacturing plant layout employing the process type.

In an intermittent production activity, process layout offers a number of advantages when applied, including capital investment because of less duplication of machineries and equipment, maximum utilization of machineries and equipment; considerable flexibility in terms of tasks performed; continuity in manufacturing activity even if one machine breaks down; and generally lower production costs for small firms producing multiple products in relatively small volumes.

On the other hand, this type of layout has the following drawbacks: difficulties in scheduling, routing and controlling of the manufacture of products since almost limitless combinations of sequences can often be used in processing similar items; high materials handling costs; and problems related to coordination and control because of unlimited manufacturing variations.

Exhibit 8

An Illustration of the Process Type Plant Layout

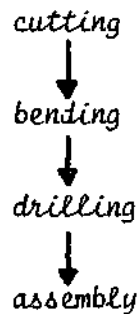


Legend:

- ☒ posts
- Imaginary dividing line
- ← Theoretical flow of materials

Product layout

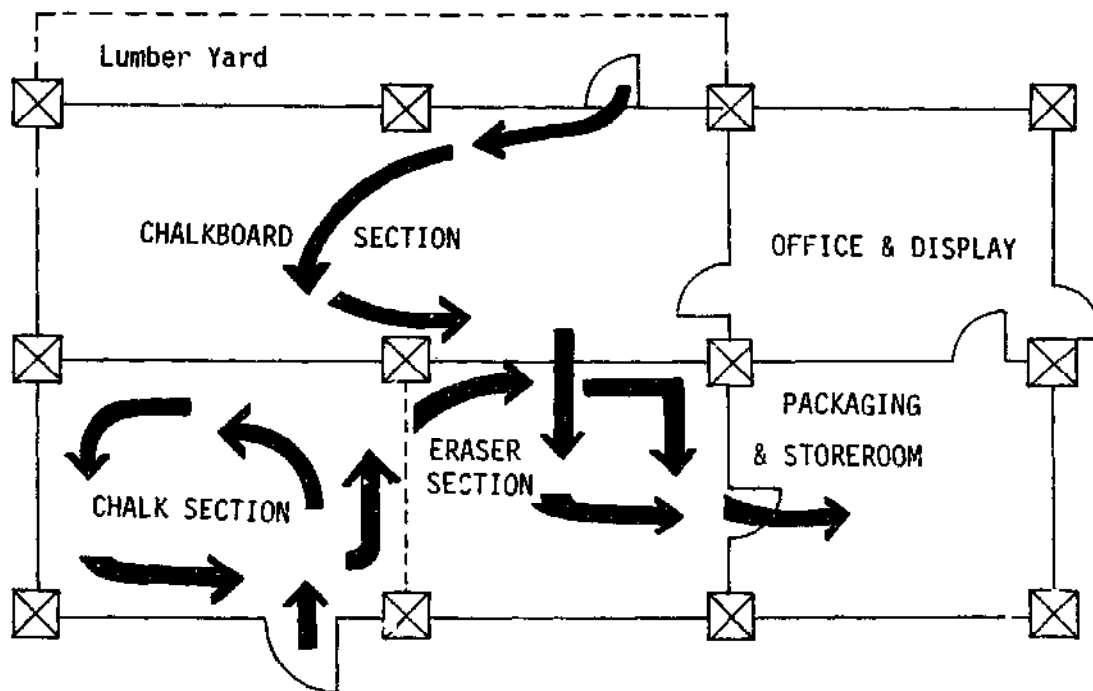
In product layout, the machinery and equipment are located according to the sequence of operations involved in manufacturing the product. Thus, if the sequence of operations in the manufacture of a steel box involves:



then the machines are arranged in such a way that the cutting area is situated first, followed by the area where the bending and nibbling machines are installed, then by the pneumatic hand-drilling section and, finally, the assembly area. In other words, the operations involved in the fabrication of a product are first determined in the order in which they are performed. Machines and equipment needed to effect these operations are then laid out in accordance with this sequence. Therefore, in a product layout, different machines are grouped in an area to process only one product or a few very similar products. The product type of plant layout is very useful to the continuous type of production system. Exhibit 9 shows an example of the product type of layout of a small enterprise producing chalkboards, chucks and erasers.

Exhibit 9

An Illustrative Example of a Product Type of Layout



The product layout has the following advantages: makes automation and mechanization more feasible; allows application of labour specialization; routing the product is not a problem; labour and material flow can be easily controlled; less inspection is required per area because machines perform a distinct operation on the product; promotes better utilization of floor space; and causes less materials-handling problems.

On the other hand, the product layout has the following disadvantages: relatively inflexible; economically feasible only in manufacturing a product in extremely large quantities; useful only for a given product where balancing of production lines is possible; may be costly for products that are susceptible to changes in fad, technology and preferences because of the need to modify and replace special purpose equipment; higher capital investments due to machinery duplications and high cost of special purpose equipment.

Another variation of the product type of plant layout is the one which could be termed as the fixed position layout. This is a layout where the raw materials essentially do not move. They are placed in a "fixed position" and worked on by the workers. Examples of this include the lapidaries manufacturing in the Philippines, the traditional boatmaking process in Indonesia and the production of "outdoor statues".

Whichever type of plant layout has been adopted, the following principles in plant layout may be used as effective guides to ensure that "every square centimetre generates profit."

1. *Principle of total integration*

The best factory layout is achieved when manpower, articles, machineries, processes, and other factors are so integrated that these diverse factors form a well-arranged and functional whole.

2. *Principle of shortest travel distance*

The best layout is one which ensures the transport of articles over the shortest distance between one process and another.

3. *Principle of flow*

The best layout is one in which working areas are arranged in the same sequence as that followed in the shaping, processing and assembly of materials.

4. *Principle of three-dimensional space*

Maximum economy is secured when all the available spaces are utilized effectively, not only horizontally but also vertically.

5. *Principle of satisfaction and safety*

The best layout is one which permits adjustment or rearrangement at the lowest cost and with the least inconvenience.

PRODUCTION SUB-SYSTEMS

Besides being concerned with the major inputs to the production system, you should also set up sub-systems that will handle specific functions inside the "conversion process". There are three major production sub-systems which are critical to small enterprises, namely:

- . Materials management and inventory control
- . Quality control
- . Production planning and control

To be sure, there are other production sub-systems, which, however, are seldom encountered by small enterprises and shall, therefore, not be discussed in this Handbook. These include product design and planning, process control, plant maintenance, safety and accident prevention, energy conservation and pollution and waste management.

MATERIALS MANAGEMENT AND INVENTORY CONTROL

This particular sub-system attempts to manage the "materials" inputs of the small enterprises. "Materials", in this case, include: raw materials, semi-finished goods, goods in process, scraps, wastes, finished products, supplies, indirect materials, tools, jigs, etc. But it is crucial in many small enterprises in developing countries, especially those that require high materials content in their products. The average small firm can attribute 40 to 60% of total production cost to materials.

The concept of managing materials acquisition, utilization, and distribution is rather new to most small manufacturing plants.

Materials management covers the other functional areas of production and operations management, notably:

1. Production planning and scheduling
2. Purchasing
3. Materials handling
4. Warehousing/storage
5. Inventory control

Materials management normally begins at the *production planning* stage of the firm where materials are generally specified in terms of quality, quantity, time needed, etc. Materials management will ensure that materials are available for processing at the time they are needed as specified in the production plan.

Procurement of the materials should allow for some "lead time" (which generally refers to the interval between the time the material is ordered and the time it is received) and is made through a production service function known as *purchasing*.

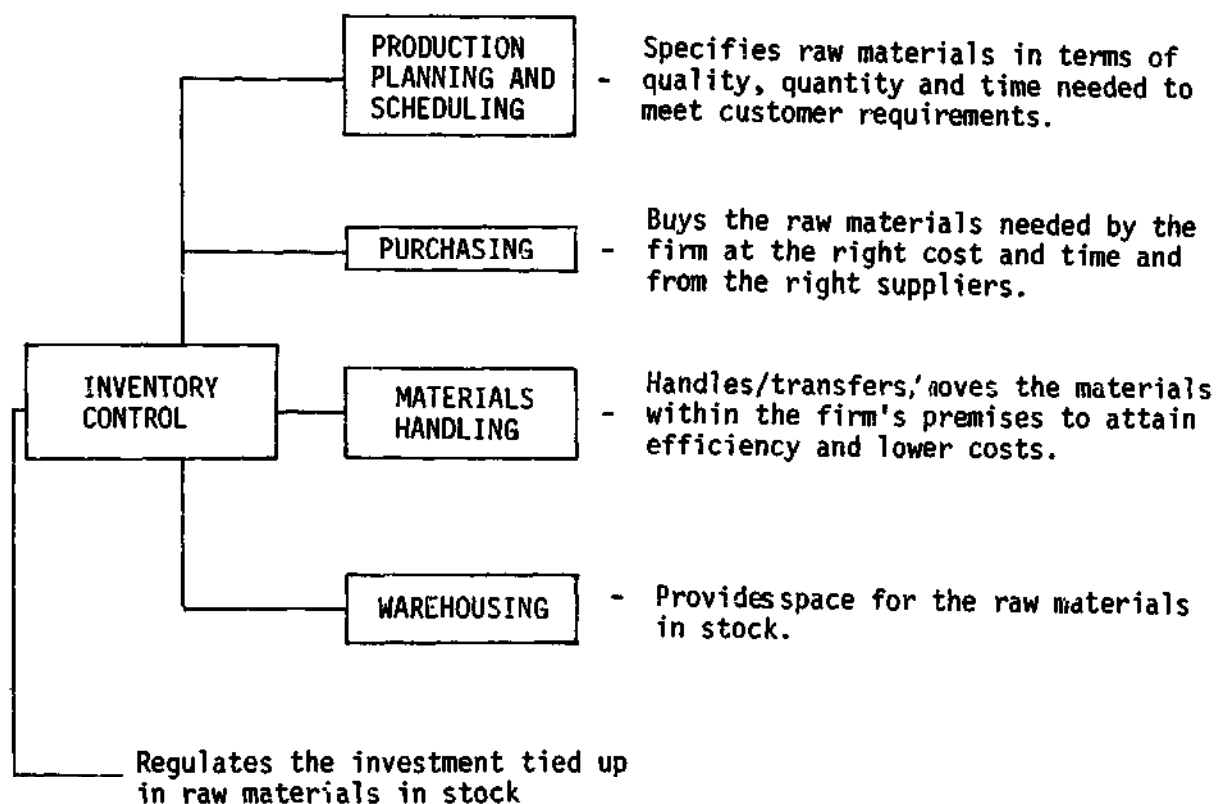
As soon as the materials have been inspected and received in the firm's premises, the *materials handling* function of materials management takes over. This function sees to it that the required materials are transferred from one work station to another in the most expedient and effective way.

Warehousing is the "space-providing" function of materials management. It provides space for incoming raw materials, in-process materials and finished goods.

The *inventory control* function of materials management governs the amount of financial resources tied-up in raw materials in stock. Exhibit 10 shows the scope of materials management.

Exhibit 10

Scope of Materials Management



As small manufacturer, you should give serious thoughts to the following questions:

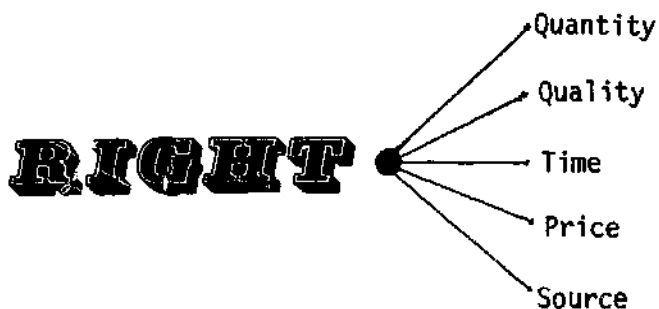
1. Where to buy the raw materials required.
2. How much to buy at the most economical costs.
3. When to buy the materials.

To deal with these questions, you should concentrate on the purchasing function. Generally, the objective of the purchasing function is as shown in Exhibit 11.

Exhibit 11

Objectives of the Purchasing Function

The purchasing function attempts to produce the required raw materials at the



The purchasing system can be implemented in a close loop manner as shown in Exhibit 12. This involves the following phases:

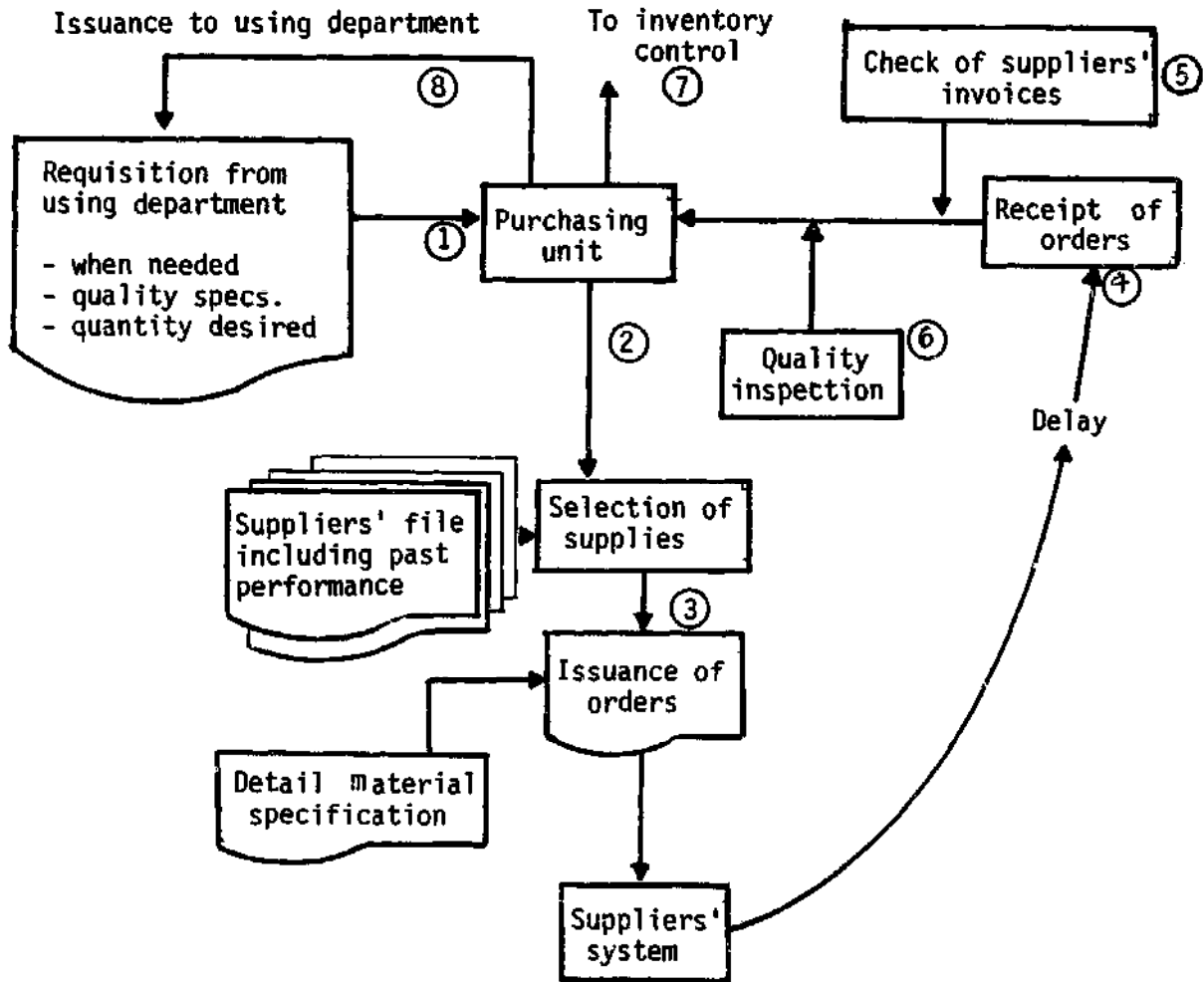
1. Requisition from using departments
2. Selection of suppliers
3. Issuance of orders
4. Receipt of materials from suppliers
5. Quality inspection of materials
6. Checking of suppliers' invoices
7. Issuing the materials to using departments

The basic purchasing cycle can be implemented in a small manufacturing firm using the following forms:

1. A user department within the firm will indicate its needs for materials and supplies on a *requisition form*.
2. If these materials are available in stock (i.e., materials regularly used in the plant), then a store requisition form is filled up. This is called *stock requisition form*.
3. This directly goes to the stores department and requirements are supplied from there.

Exhibit 12

Basic Purchasing Cycle



4 In cases where materials are to be directly ordered from suppliers, a purchase requisition form is filled up by the person representing the department needing the materials. This form contains data on:

- . materials name or code identification
- . amount needed
- . desired delivery date
- . technical specifications
- . others

is usually called the *non-stock requisition form*.

5. For items that are repetitive in nature, and those for which purchases are made to replenish stocks, a *travelling requisition form* may be used.

The purchasing function must continually assure the procurement of raw materials from the right source. You can achieve this by considering the following factors when purchasing:

1. Commercial availability of the material.
2. Quantity requirement over a certain period of production time.
3. Available financial resources of the firm.
4. Available space (if the materials needed are bulky).
5. Time factor in purchasing.
6. Purpose of the purchase, i.e., one-type purchase or multiple-type purchase.

As soon as the materials needed for production have been purchased, they are handled, transported and moved inside the plant in as "economical" a manner as possible. All these activities related to the movement of the materials inside the plant may be termed as *materials handling*. The following principles^{1/} may serve as useful guides towards efficient, safe and economical handling of materials.

1. Unnecessary handling requires money and does not increase the value of the product.
2. Try to eliminate as much handling as possible. If it is required, try to use mechanical means instead of manpower whenever possible.
3. A handling process should be adequately combined with the processes of work, inspection, storage and other handling processes that precede or follow it.
4. In order to minimize the cost required for handling, the ordinary working process should include as much hand tools and semi-automatic machineries as possible.
5. All the handling systems should be integrated.
6. As in the case of "production means", an active effort should be made to update the facilities and means for materials handling whenever new equipment which promises higher efficiency is introduced to the market.

The other aspect of purchasing and materials management is the control of the financial resources tied up in raw materials in stock. This is within the purview of inventory control. Essentially, inventory control attempts to regulate

^{1/}Nagashima, *100 Management Charts*, 182.

the investments in inventories at some economical point while assuring an optimum level of materials in stock for the effective implementation of the production plans.

In small manufacturing firms, the term "inventories" normally refers to the following:

1. *Raw materials* - These items need to be reprocessed in order to become "a part" of the product.
2. *Purchased parts* - These items are procured to be a part of the product and do not need any form of reprocessing.
3. *Operating supplies* - These items are indirectly used in the processing of the product and are not seen in the finished product.
4. *Tools* - These items are necessary to keep the machinery and equipment of the company in good operating conditions.
5. *Office equipment and supplies* - These items are used to keep the day-to-day administration effective.
6. *Finished goods* - These are the products that are ready to be sold and/or delivered to the customers.
7. *Parts in process* - These include fabricated parts and sub-assemblies.
8. *Packaging materials* - These items are used to protect finished products.

To regulate the investments in the above inventories, the purchasing function should be guided by some form of inventory policy. Two of the more important questions inventory policy should attempt to answer are: "How much of material X to buy?" and "When do we make the first purchase, the next purchase and so on of material X?"

Let us deal with the first question.

In answering this question, it is helpful to analyze the various cost items, then the behaviour and degree by which you can control such costs (degree of controllability). Generally, the cost items involved in the purchasing transaction include the price of the material, procurement cost and the inventory carrying costs. The behaviour, degree of controllability, units of measure and examples are summarized in Exhibit 13. Furthermore, Exhibit 14 shows the behaviour of the procurement and inventory carrying costs with respect to varying quantity levels.

As shown in the exhibit, procurement costs per order tend to decrease as the volume of the materials per order decreases. The inventory carrying cost, on the other hand, tends to increase as the quantity of the materials purchased increases. If you add the inventory carrying costs and the procurement costs at varying quantity levels, a curve known as the total incremental purchase cost can be generated. This total cost excludes the price we pay for the raw materials and as can be observed, it is like a 'parabola' opening upwards. The lowest point in the total incremental cost curve indicates the economic ordering costs (E.O.C.) and the economic ordering quantity (E.O.Q.).

Exhibit 13
Costs Involved in a Purchasing Transaction

Type of Cost	Behaviour	Controllability	Units of measure	Examples
1. Price	External to the firm	Uncontrollable with respect to the small firm	Monetary	-
2. Procurement cost	Fixed costs per order - internal to the firm	Controllable	Monetary unit per order of material	<ul style="list-style-type: none"> - Costs in making requisitions - Analysis and selection of orders - Preparation of purchase orders - Receiving the materials ordered - Updating the inventory records - Inspecting the material - Other paperwork
3. Inventory carrying costs	Variable costs per unit - internal to the firm	Controllable	Monetary unit per piece of material	<ul style="list-style-type: none"> - Taxes paid for the materials ordered - Interest expense - Obsolescence - Deterioration - Shrinkage - Insurance - Shipping costs - Handling - Depreciation

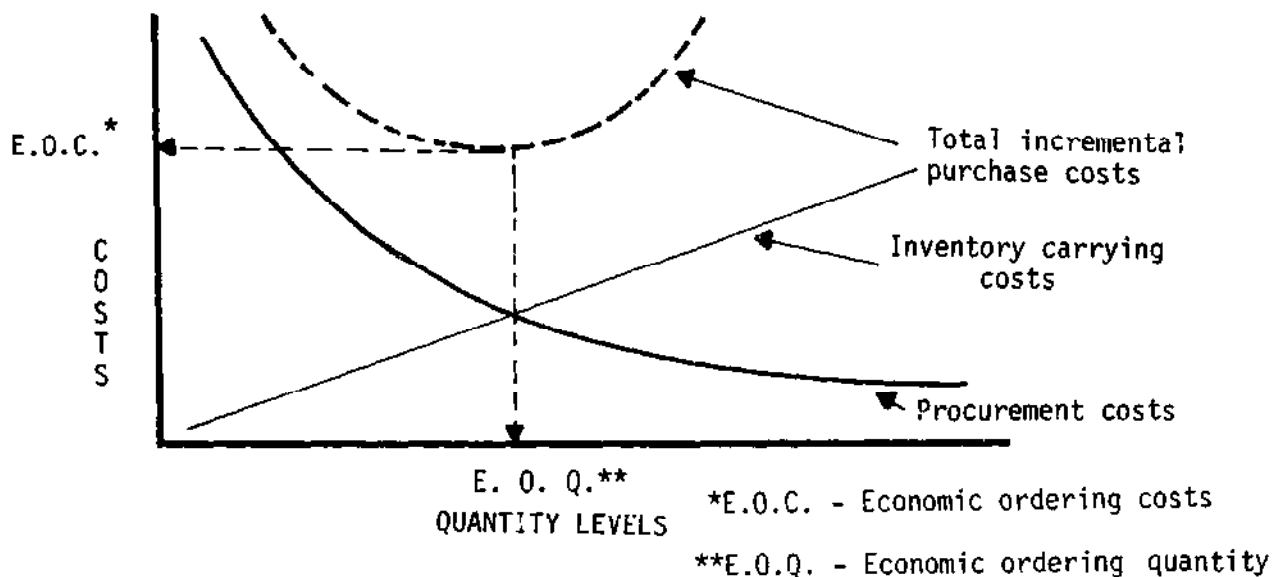
Finally, you may observe that, if you order less than the EOQ point, the total incremental costs are relatively high and while if you order more than the EOQ point, the costs likewise are high. This concept is valuable to the small entrepreneur for it provides a guide for determining economic levels of materials inventory. Moreover, the following facts can be discerned from the concept:

1. Processing frequent orders cost money.
2. Carrying excessive inventory is expensive
3. Buying in large quantities enables the manufacturer to purchase raw materials at some quantity discounts.

There are various ways of estimating the economic order quantities of the critical raw materials in your firm. Assistance could be obtained from the small industry extension agents, or from your accountant-bookkeeper.

Exhibit 14

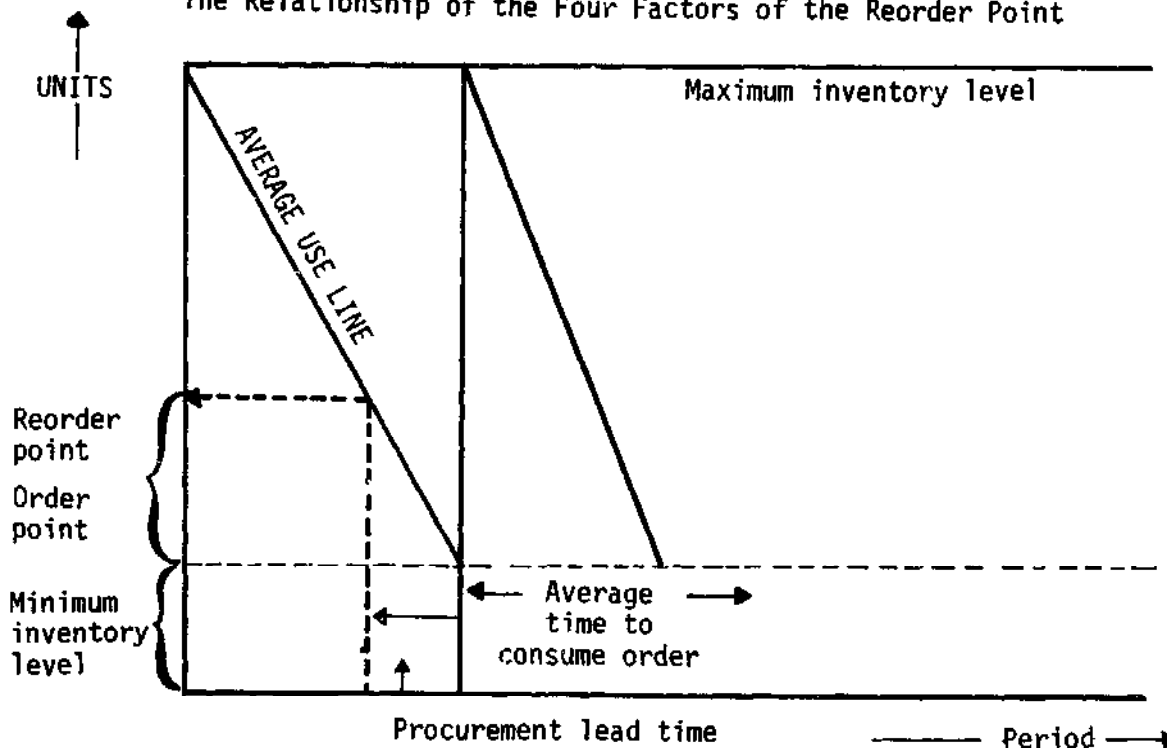
The Procurement, Inventory Carrying and Total Incremental Purchase Costs



Where: - Total incremental purchase costs is the sum of inventory carrying costs and procurement costs at various ordering quantities.

2. *Minimum level of inventory* - This is the reserve stock level of a particular material or part enough to maintain a safety stock.
3. *Usage rate* - This is the average number of materials or parts consumed for a given period of time. For the purpose of establishing the reorder point, usage rate will be used to mean the rate of consumption of the minimum level of inventory.
4. *Procurement lead time* - This is time required in purchasing materials and parts from the signing of the requisition slip to delivery into the store room.

Exhibit 15
The Relationship of the Four Factors of the Reorder Point



In practice, there are many variations to the economic order quantities and the reorder point concepts, such as:

1. *Two-bin system* - The industrialist will procure enough quantities of a particular raw material and stock them in two-bin containers. When one of the bins have been emptied then it is time to reorder. How much will be bought and the appropriate volume of the bin may be based on experience in the trade or on some form of scientific estimate.
2. *Dollar-limit system* - This is another version of the two-bin system which uses the dollar value of the available raw materials as the indicator to purchase.
3. Other variations include *quantity, limit, etc.*

The other aspect of materials management is *warehousing* of the materials and of the finished products. The warehousing function, to be effective, must ensure continuous service to the other production sub-systems of the firm. As in *inventory control*, the warehouse must contain only "enough" materials for future production use.

QUALITY CONTROL

Another very important area in production and operations management of small manufacturing enterprises is quality control. There are many ways by which quality control has been viewed by the small entrepreneurs in Asia. This sub-system assures the conformance of the outputs of the production system with the needs of the target market. Likewise, the quality of the product of a firm tells much about the orientation, management and capability of the firm.

In Japan, for example, quality control is the concern of everyone in the manufacturing firm, from top management to the lowliest labourers and from the marketing people to research and development personnel.

In Singapore, institutions like the Singapore Institute of Standards and Industrial Research (SISIR), are viewed both as a "filter" and "facilitator" system for the country. "Filter", because they prevent the entrance of inferior quality products in the local market and "facilitator", because they attempt to continually upgrade the quality standards of products manufactured in the country for both domestic and export markets.

Small and medium scale manufacturing industries in Hong Kong have started to install effective quality control systems with the assistance of the Hong Kong Productivity Centre (HKPC) and other private and public institutions.

In countries like Bangladesh, the Philippines, Malaysia, Thailand, Indonesia and Sri Lanka, there are substantial initiatives to encourage small and medium industries to establish effective quality control programs.

Quality

What's all these about quality? In the case of small and medium manufacturing plants, "quality" has been viewed in many ways. One way is from the point of view of the manufacturer: "I will produce whatever I think is best for my client." Still another viewpoint is that of the customers: "Manufacturers should produce this product this way, because we like it this way."

There are substantial indications that "quality" must always be viewed from the customers' viewpoint since the definition of quality emanates from the customers which is then refined or reinterpreted by the manufacturers. Exhibit 16 shows a general pattern as to how "quality" definitions emerge.

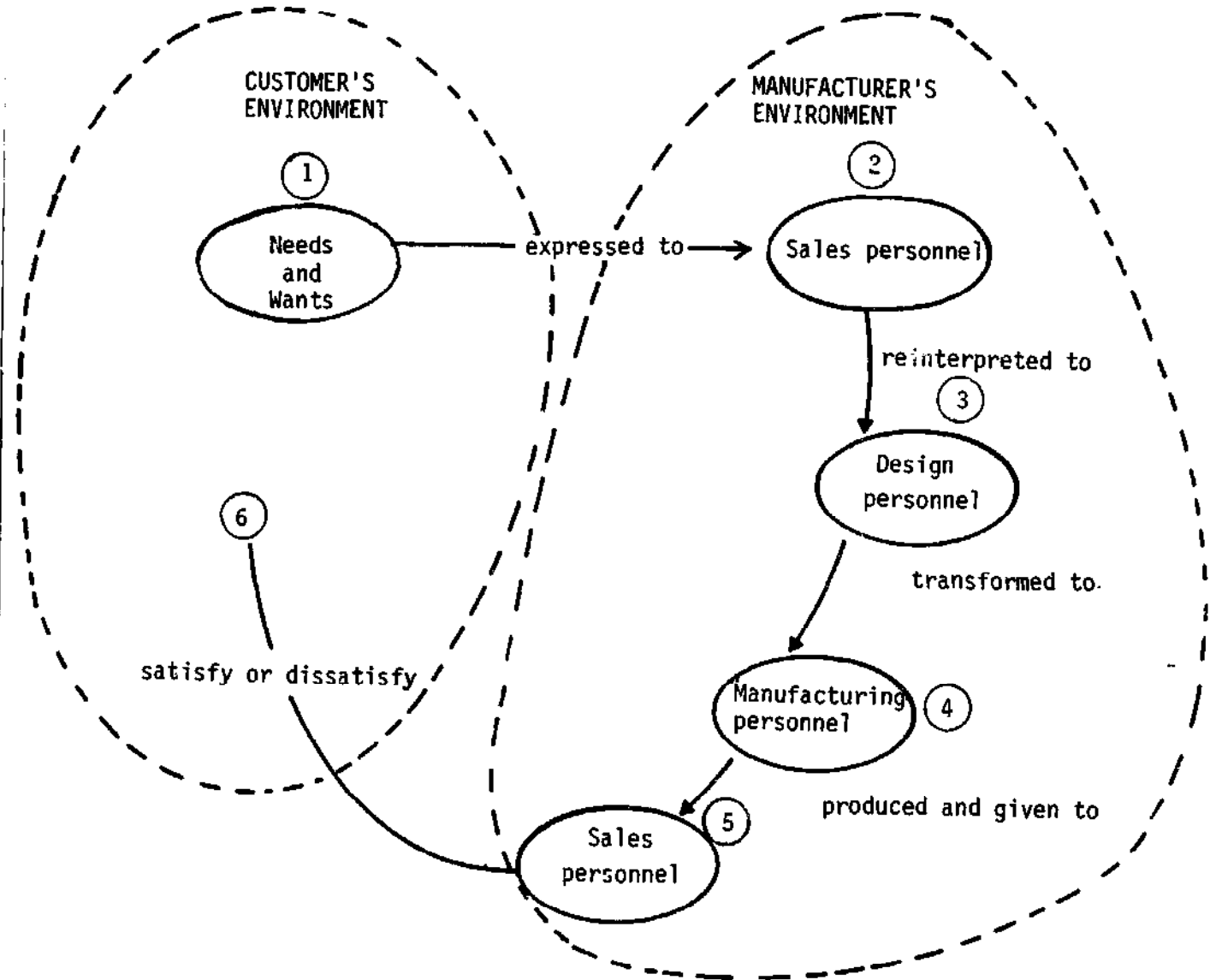
From the diagram in Exhibit 16, you will note that the definition of quality evolves around the physical properties of the products that conform or match with the requirements of the end-users or customers. This definition must, however, never be confused with "perfect products."

In viewing the quality of the product, the manufacturer should consider two major characteristics: *variable* and *attribute*.

Variable characteristics refer to the physical characteristics which are directly measurable, i.e., length, width, acidity, thickness, elasticity, strength, etc., while *attribute characteristics* refer to those which cannot be directly measured physically, i.e., beauty, smoothness, appeal, etc.

Exhibit 16

How "Quality" Definitions Emerge



Still another perception of quality involves what is known as *quality of design* and *quality of conformance*. *Quality of design* is concerned with the implications of deciding which design of the product maximizes the specific customers' satisfaction, while *quality of conformance* is a continuing process of measuring, testing and adjusting to ensure the maintenance of the level of quality stipulated in the design stage.

Quality control

Quality control means the identification and correction of various causes, defects and variations from the set standards or specifications of a product. The objectives of every quality control initiative must be both *remedial* and *preventive*. The remedial objective involves sorting out the defectives at the final stage of production so that only potentially acceptable "good" products will reach the end-users. The preventive aspect is concerned with determining at various points or stages of production the reason why defectives occur in order to keep them at a minimum at the final stage of production.

One common way of ensuring quality control in small manufacturing plants is the conduct of various inspection processes. Inspection focuses on the application of tests and measuring devices to compare products and performance with specified standards. Inspection processes permit the sorting out of the "acceptables" from the "defectives".

Small manufacturing companies in Southeast Asia use various approaches to quality control and quality inspection processes. Among these approaches are:

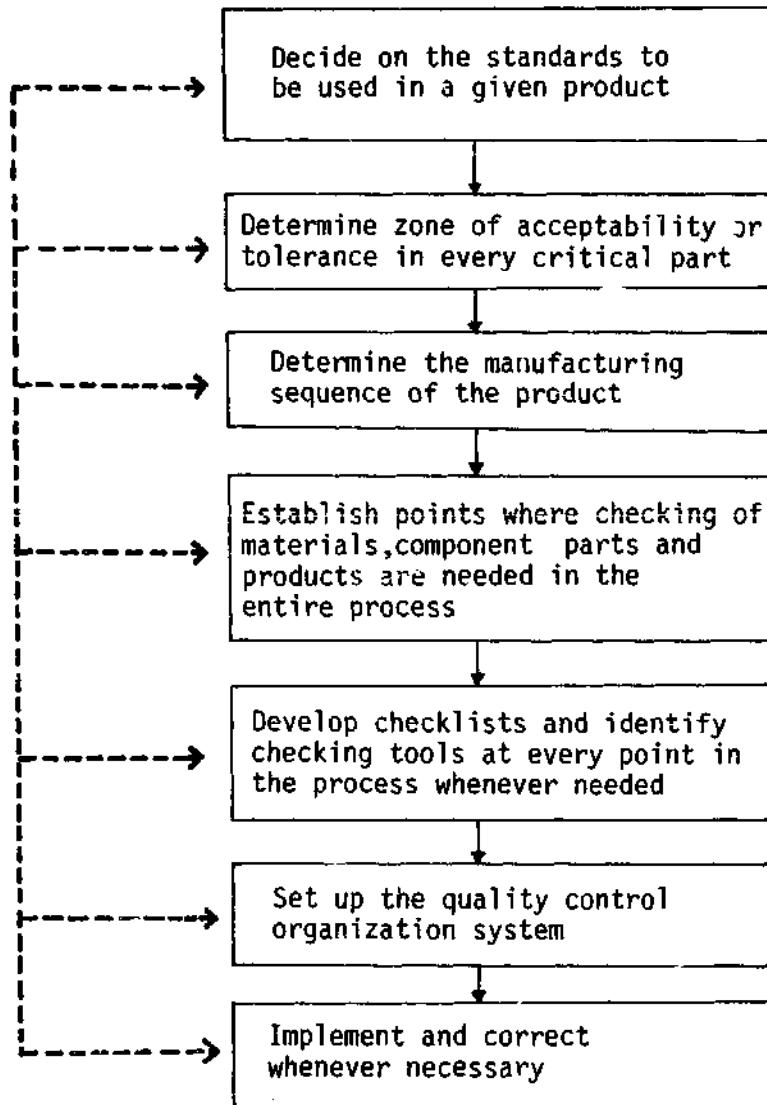
1. The owner-manager is a skilled craftsman and he is his own "final inspector" or he may employ a supervisor with a long experience in a given trade who is considered the "final inspector". Whatever this ultimate inspector claims to be of good quality is accepted by the customers.
2. Some "authoritarian" owner-managers (prevalent in small garment manufacturing companies in the Philippines) still charges fines from machine operators for the defectives generated.
3. In more sophisticated medium-sized firms, publication of rate of defectives are made, tied up with some sort of an incentive package for the group of workers having zero or very minimal rate of defects within a defined production period.

In order to ensure control of quality, the procedures outline in Exhibit 17 may be useful.

The first step involves making *decisions on the standard* to be adopted. This decision is the first important consideration in ascertaining the money control of quality in a small manufacturing plant. Between entrepreneurs and end-users, such standards may be set, with both sides concentrating on the "trade offs" involved in standards setting. In other words, manufacturers and end-users compromise or meet midway. If the entrepreneurs will give in too much to the wishes of the end-users, the final product may turn out to be too expensive and take a longer time to produce. If on the other hand, the end-user will give in too much to the changes suggested by the entrepreneur, the product may turn out to be inappropriate to his needs. Even in metalworking industries where specifications are expected to be detailed and elaborate, technical drawings of required parts are seldom used in clarifying standards. This is true of most metalworking firms in Bangladesh, the Philippines, Thailand and Sri Lanka.

Exhibit 17

Procedures for Assuring Control of Quality in
Small Manufacturing Plants



Determining the level of acceptability or tolerance is the second step. Here, the entrepreneur is concerned about the permissible variations in the basic criterion agreed upon in the first step. Again in the metalworking industries, for example, this is expressed in terms of the basic criterion plus or minus an acceptable tolerance limit, i.e., length of part 30332 must be $2.0 \text{ mm} \pm .004$. It should be noted that the tolerance limits should be broad enough to accommodate "chance variations" or those variations caused by factors inherent in the production processes.

The next step is determining the manufacturing sequence. Actually, this procedure is also needed in the production planning phase where processes, machinery/equipment operations, operators, workers, etc. to be employed to produce the product are identified.

From the manufacturing sequence, the entrepreneur may be able to identify, with the aid of the customer, those critical points where strict quality adherence should be maintained. These points will be considered as checkpoints wherein inspections will be made to ensure conformance with standards.

The next step involves the listing of procedures which must be followed by the workers or inspectors in ascertaining conformance to the quality level established at the first step. Attention should be given to "hardware" (tools for inspection checks) and "software" (procedures for inspections). Typical hardware employed in small and medium metalworking firms include footrules, calipers, micrometers, dial gauge, thickness gauge, snap gauge, "go/no-go" gauges, etc.

Finally, inspection system must be activated. Here, the industrialist should ask questions like: "Who is responsible for ensuring the quality of raw materials used?" "Who is responsible for checking the first, second and third critical points in the process?" "Who will check the final products," etc. There are many ways by which inspection may be carried out normally: first product inspection, random sampling, inspection by batch and inspection of all the products.

Once these and similar questions have been answered satisfactorily, the system can be implemented, with proper corrections and adjustments where or when necessary.

Production planning and control

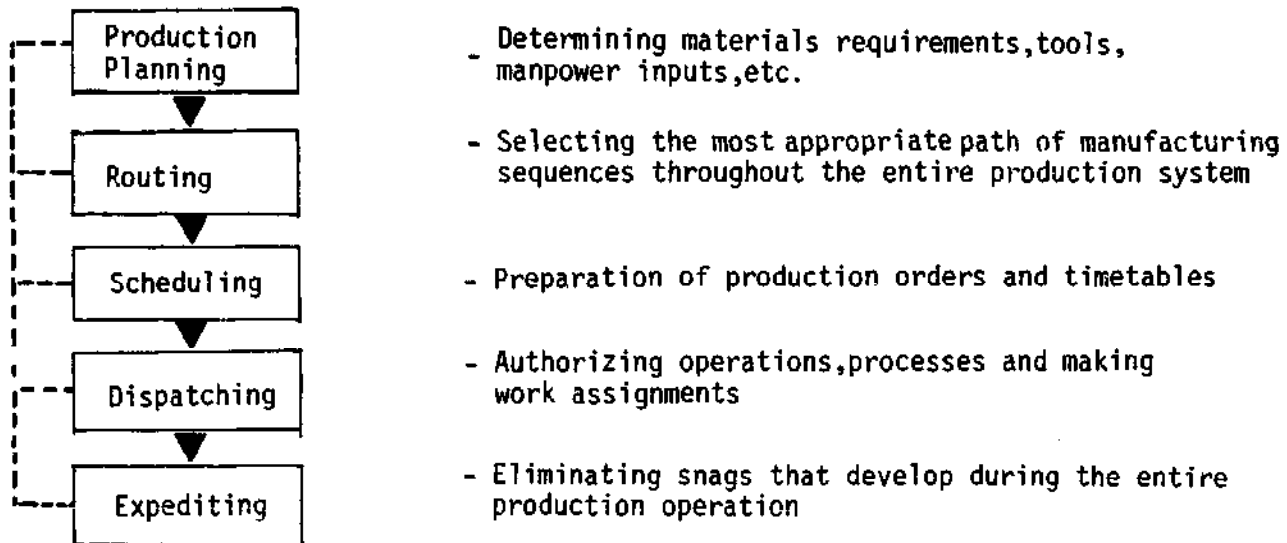
One of the most important sub-systems of a production system of a small manufacturing enterprise is the production planning and control sub-system. As the information nerve center of the entire production, production planning and control assures that the flow of materials, money, machinery, men, time and information is regular, orderly and sequential and that it is provided at a rate which will permit the production system to meet delivery schedules. Essentially, production planning and control will have the elements shown in Exhibit 18.

Generally, the planning function consists of the following tasks:

1. Coordinating production department with other departments of the business.
2. Determining what the department must produce based on market survey.
3. Calculating the quantities involved based on sales forecasts.
4. Scheduling the delivery of the product to the customers.
5. Programming the time and quantity requirements for materials, parts, labour and facilities.
6. Synchronizing the contribution of engineering, personnel, purchasing and administration to the total production activity.

Exhibit 18

Essential Elements of a Production Planning and Control System



A simplified *production planning* scheme is presented in Exhibit 19. On the other hand, *production control* has the following functions:

1. Promotes effective shop operations due to control of all activities within the production department.
2. Coordinates manufacturing activities in accordance with the production plans.
3. Involves routing, loading or scheduling, instructions, and expediting or follow-up .

The two aspects of *production planning* and *production control* shall be exhaustively discussed separately later in this chapter.

Actually, in most instances, *production planning* is not as systematic as shown in the simplified scheme in Exhibit 19. Among small enterprises, most of the planning activities are made and stored in the "head" of the entrepreneur. As a consequence, there is the danger that the entrepreneur may change his mind too frequently resulting in inordinate and uneconomical flexibility in planning. Moreover, an entrepreneur who has a lot of things in his mind is liable to forget some of his plans which he has only mentally recorded.

A majority of the job-shop printing businesses in the Philippines has not made it a habit to schedule production activities because of the frequent "paki"- ^{2/} job orders. This is an unprofessional scheduling practice wherein the customers'

^{2/}May be understood here as a personal request by a customer to give priority to his order, regardless of previous production schedules.

relationship with the printer is a more important consideration than potential profit, set-up costs, available production times, etc. Although this follows inherently Filipino values,^{3/} it is clear that the extension of this practice in managing production systems would result in sub-optimal scheduling of manufacturing activities.

It can be observed from Exhibit 19 that the production planning process commences with either a set of accumulated job orders (for intermittent type of manufacturing activities) or the existing production capacity of the firm. The production capacity (actual and/or rated) can be a "filter" for jobs that the firm can accommodate on a one-shift or multiple shift basis and/or those subcontracted to other shops. The jobs which are found acceptable in terms of the available capacity will be converted into production forecasts, which are normally expressed in quantities.

Using a set of technical drawings, product specifications and/or a sample product as basis, the materials needed are listed and the total requirements estimated. The initial estimates of the raw materials (direct and indirect) should be adjusted to take into account factors like spoilage, wastage, economic order quantities, re-order points, scraps, existing materials inventory, etc. Process planning then succeeds the materials billing step. Here, the types of machinery needed for the manufacture of the product, as well as the estimated machine-hours required per process, need to be listed. Some form of "standards" usually based on similar or past jobs will serve as a basis for estimating the total machine-hours required. This initial estimate of machine-hours may be adjusted later in consideration of such factors as potential machine breakdowns, repairs, irregularities in the power supply, availability of operators, etc.

After process planning comes man-hour planning. The man-hour planning process begins with the identification of all the areas of production where manpower inputs would be required. The man-hour estimates per process should be made using some rough forms of standards usually based on the estimator's/ workers' experience levels, absenteeism, moodiness, tardiness, etc. The outputs of the materials billing, process planning and man-hour planning procedures will serve as inputs to the master schedule board. The master schedule board will contain all the necessary information regarding the job orders on hand, job orders in process, jobs to be completed and so on.

A generalized model of a production planning sheet for a job order and an example of a master schedule board are shown in Exhibit 20 and 21 respectively.

In filling up the item "process required" you must clearly state the entire sequence of manufacturing in practically all the details needed. This part of the plan will serve as the basis for the raw materials flow and requirements, the machine-hours needed and the man-hours to be allocated.

After considering capacity, availability and other adjustment factors, you may now start the scheduling process. The objective of scheduling in

^{3/}"pakikisama" (comradeship) and "hiya" (sense of propriety), among others.

EXHIBIT 19

A SIMPLIFIED PRODUCTION PLANNING SCHEME FOR A SMALL MANUFACTURING PLANT

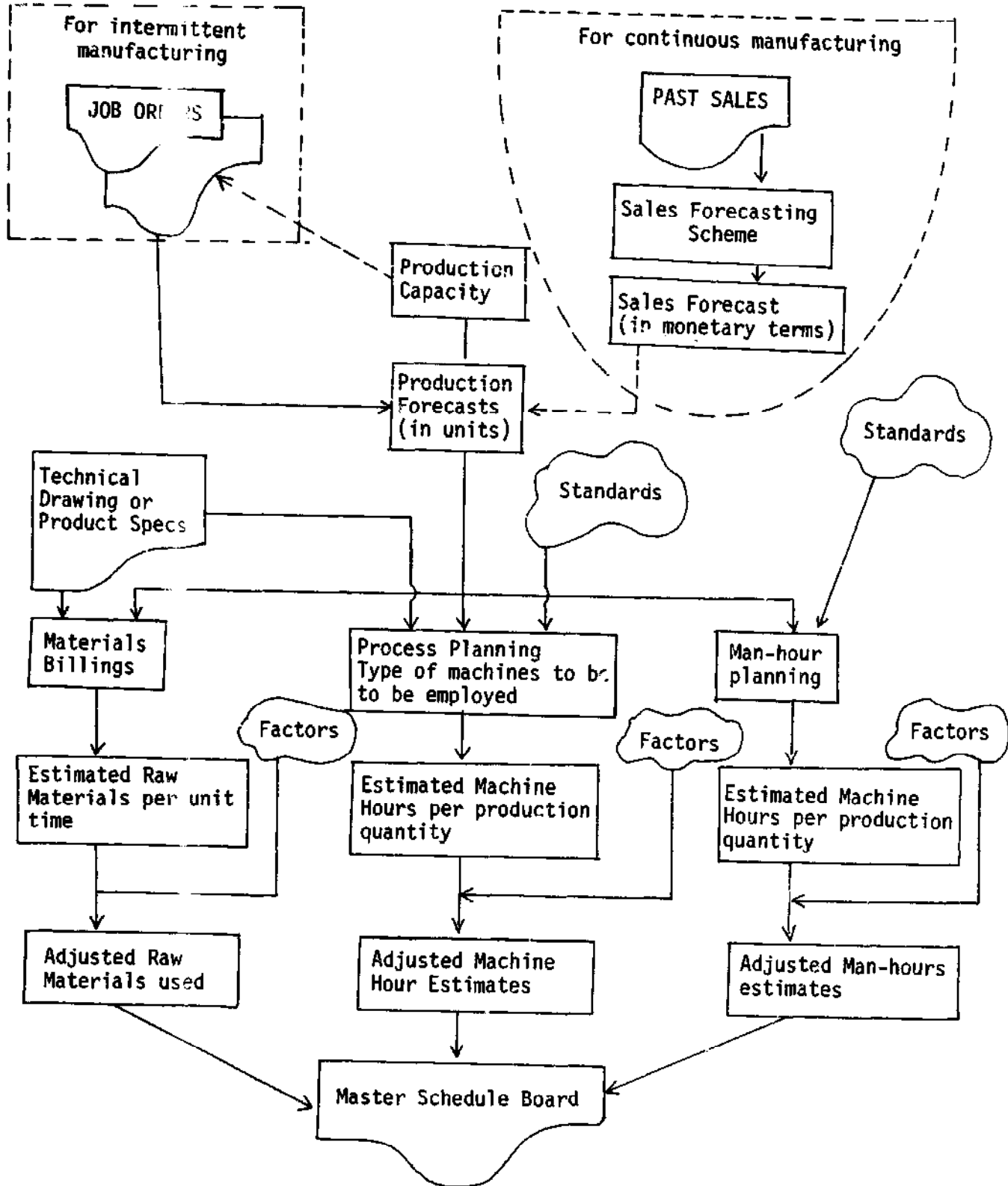


Exhibit 20

A Generalized Production Planning Sheet for a Small
Manufacturing Firm

Production Planning Sheet

Job Order No. _____ Date Received: _____
Customer: _____ Volume needed: _____
Address: _____ Date needed: _____
Contact: _____ Other Information: _____
Product/service description: _____

Summary:

A piece of the product or service would require the following production inputs:

- | a. Materials List | Quantity Required | Adjustments |
|-------------------|-------------------|-------------|
| b. Machine-hours | | |
| c. Man-hours | | |

Prepared by: _____ Verified by: _____ Checked by: _____

Actions: _____

Enclosures: _____

Basis: Technical drawing Sample Verbal description
 Product specifications

Processes Required (a)	Materials Per Unit (b)	Machine-Hours Estimates (c)	Man-Hours Estimates (d)	Remarks (e)
---------------------------	------------------------------	-----------------------------------	-------------------------------	----------------

Adjustments

- a. Materials: _____

- b. Machine-hours estimates: _____

- c. Man-hours estimates: _____

Exhibit 21

A Generalized Production Plan for a Job-Order
Manufacturing System

Job Order No.	Date Received	Date of Delivery	Quantity Required	Materials Required	Man-Hours Estimate	Machine-Hours Estimate	Volume Per Week	First Machine Loading Date	Production to Date

manufacturing, whatever the scale or size, is to prepare, allocate and make available all the necessary physical inputs needed in the "creation" of goods and services, in order that:

1. All job orders received are executed within the least possible time.
2. Promised dates of deliveries are estimated based on information.
3. A continuous supply of work is kept ahead of each of the processes to be performed.
4. Plant supervision can be minimized.

An example of a generalized production plan for a job order system is shown in Exhibit 21.

Production plans must not be too rigid especially among plants employing the job order system so that necessary revisions may be made if any of the following occurs:

1. Need to add a new product(or job order) to the existing one.
2. Changes in the design of the product which may result from rationalization or standardization efforts, product adaptation, cost effectiveness schemes and productivity studies.
3. Need to reduce production cost per unit through greater utilization of existing facilities.
4. Obsolescence of processes , equipment and methods.
5. Need to minimize labour and/or materials costs.
6. Need to prevent increased investments in machineries/equipment.
7. Need to enhance effective supervision and production control.

The task of revising the production plans may be implemented in three ways, namely:

1. Periodic adjustments for small manufacturing plants that change products and accept job orders at a fairly definable period, i.e., annually, monthly, etc.
2. Continuous adjustments for small manufacturing firms employing job order systems with very short production cycles.
3. Accidental adjustments upon discovery by production personnel of new methods or improved processes in the course of production.

After production plans have been adequately prepared, the next major task would be to ensure that unnecessary and undesirable "surprises" or unexpected happenings are avoided while implementing the plan. This falls within the realm of *production control*.

Basically, *production control* involves the regulation, synchronization and coordination of all the manufacturing activities so that timetables can be met and plans carried out with optimum efficiency and economy. All manufacturing companies, big and small, are beset by any or all of the following problems:

1. How to satisfy customers concerning delivery dates and quality requirement.
2. How to reduce production cost to ultimately reduce the price of the product.
3. How to maintain a minimum level of capital investment.
4. How to smoothen the production cycle.

These problems may seem insoluble since they appear to be inconsistent with one another. Salesmen and other marketing staff clamour for quick deliveries; production personnel ask for more time; and finance people fight for the reduction of capital expenditures. Production control aims to synchronize all the activities concerned with production, in order to meet delivery dates and achieve the lowest cost and right quality with a minimum of capital investment.

As in any other form of managerial control, the basic elements of a control system must be present in production control. These are a *subject to control*, a *sensing form*, the *production plan*, (standard) *production variance reports*, *persons responsible* and *areas to be controlled*. Exhibit 22 shows the basic structure of a production control system.

There are two basic production control systems: *order control* and *flow control*. These two systems exist because there are generally two types of manufacturing processes: *continuous* and *intermittent*. However, it is difficult to strictly classify companies according to type of manufacturing process since some companies are using both order and flow control systems.

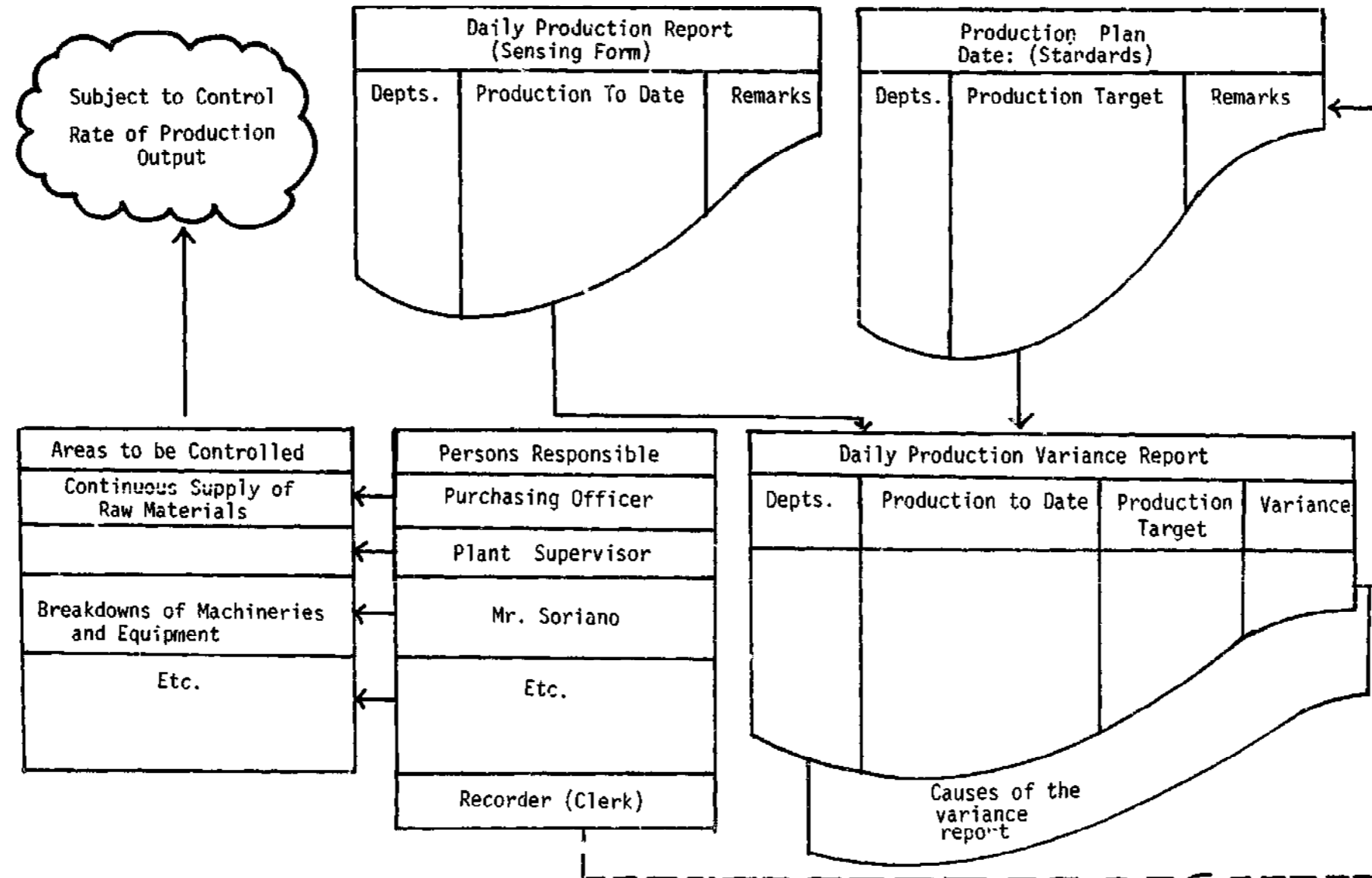
The first thing to do to determine the type of production control is to investigate the characteristics of the manufacturing process.

1. A manufacturing firm uses the intermittent manufacturing process:
 - a. for multifarious variety of products per order.
 - b. for small quantity units that are seldom reordered.
 - c. if the company makes use of all-purpose machinery and equipment in the processing of its products.
 - d. if the plant is laid out on the basis of the production process.
 - e. if the manufacture of products are based on past sales records.

These cases call for the application of order control.

Exhibit 22

Basic Structure of a Production Control System



2. A company uses the continuous manufacturing process:
 - a. for generally-standardized products produced on large-volume basis.
 - b. if the plant is departmentalized by product.
 - c. if special purpose machines are economically used.
 - d. when the company fills a long-term contract on the sale of its products.
 - e. when production is for a stock of products.

Here, flow control is applied.

Relative to the production systems used, the job order or the service production system makes use of strictly intermittent manufacturing schemes. The mass production system is somewhere in the middle and may be classified as intermittent or continuous depending on the degree of application. The process production system, on the other hand, makes use of the continuous manufacturing scheme.

The intermittent manufacturing scheme is widely applied by small and medium-sized industrial plants.

The control function cannot be complete without the monitoring function. Here, we are interested in the "deviations" of the actual production with the planned production runs. These deviations must not only be measured and identified; their causes should be pinned down as well. Exhibit 23 shows some examples of production monitor charts which can be applied to small manufacturing plants.

IMPROVING PRODUCTIVITY IN SMALL ENTERPRISES

As illustrated earlier in this chapter, the production system is viewed as an input-output device. In so doing, we can clearly see the relationship of the different production factors with *productivity*.

Productivity is expressed in terms of the ratio of the output to the input. Assuming, therefore, that sets of inputs and outputs could be quantified in terms of a unified unit, the productivity of a production system is estimated by using this relationship:

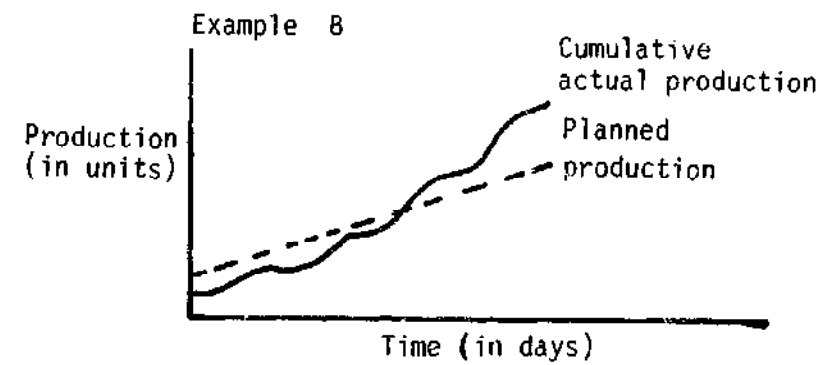
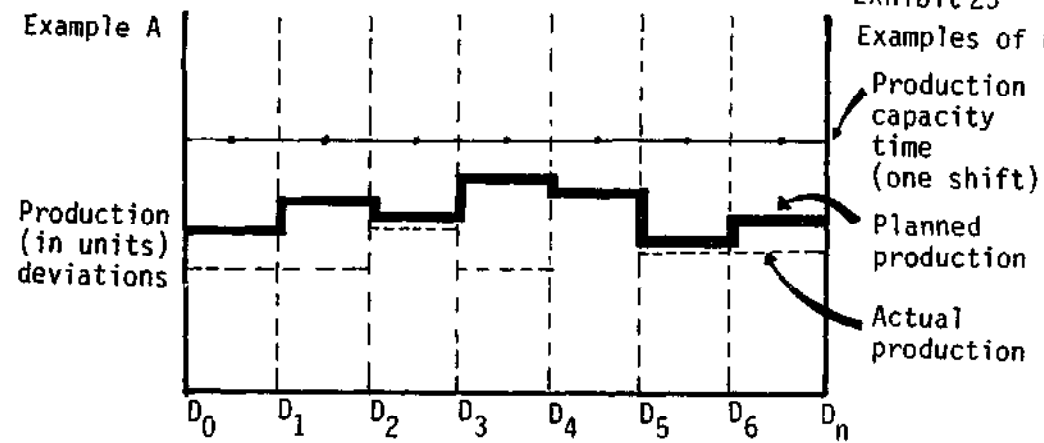
$$\text{Productivity} = \frac{\text{Output}}{\text{Input}}$$

Evidently, the productivity of a certain set of inputs is the amount of goods or services (outputs) which are produced from them.

The following are examples of inputs:

1. *Materials* - Stuffs that can be converted into products to be sold. They include chemicals, fuels for use in the process of manufacture and packaging materials.

Exhibit 23
Examples of Production Monitoring Charts



Example C

PRODUCTION MONITOR CHART															
Job Order	Jan														
	1	2	3	4	5	6	7	8	9	10	11	12		30	
xxxx2															
xxxx4															
xxxx8															

Legend

xxxx planned production (in units) ——— actual production to date

2. *Machines* - Plant equipment and tools necessary to carry out operations of manufacture and the handling and transport of materials; heating, ventilating and power plant; and office equipment and furniture.

3. *Manpower* - Men and women to perform the manufacturing operations, to plan and control, to do clerical work, to design and do research, to buy and sell, etc.

The inputs of the production system are "real" things or services. When these are used up in the process of production, "real" costs are incurred. These costs may also be measured in monetary terms. Since higher productivity means more output from the same resources, it also means lower costs and higher net money return per unit of output.

As a small entrepreneur, you should always see to it that all your resources are used optimally to achieve the highest productivity. Your job is to balance the use of one resource against another and coordinate the efforts of everyone in the organization to achieve the best results.

The productivity-conscious manufacturer will do well to seek the assistance of industrial engineers and other work and methods study experts.

CHAPTER VII

FINANCIAL MANAGEMENT

A basic understanding of financial management concepts, approaches and tools is important to the small entrepreneur who wants to increase his profits and to ensure the long-term survival of his business.

The basic tools of financial management include cost accounting, budgeting and capital budgeting. All these tools not only help the entrepreneur in attaining his profitability goals but also influence planning and decision making on vital questions such as product pricing, acquisition of new facilities, and business diversification and expansion.

The foundation of good financial management is adequate and accurate financial information or records. Good records keeping is vital to the successful operation and management of the firm. It also aids in the decision making process and in income tax reporting.

Finally, the entrepreneur is cautioned against a number of financial management pitfalls commonly encountered among small enterprises.

A business can only survive if it generates enough profits. The small entrepreneurs can only maintain or increase profit if he knows the elements that effect profitability, as well as the techniques to achieve acceptable returns on investments.

To be sure, the presence of an adequate product demand and technical competence are essential pre-requisites to business success. However, as the enterprise grows it becomes increasingly important to take the area of finance seriously.

Now, your business may seem to be making money. But take a closer look. What steps can be taken to control cost? to offset inflationary pressures? finally, to increase profits? Regardless of the condition of your business, chances are you can do better than how you are doing now.

As small entrepreneur, you are probably also your own financial manager. As such, you have the responsibility to manage the resources or assets of your business to generate optimal returns. It is also your task to look for sources of financing, whenever necessary, at the most favourable terms.

This chapter shall provide a basic understanding of financial management concepts, approaches and tools to help the small entrepreneur to be a more effective financial manager and to enhance the profitability of his business.

MANAGEMENT OF ASSETS

Assets, by definition, refer to the things of value owned by the business. This definition, therefore, excludes personal assets and worthless property. Assets are of two major types: fixed assets and working capital.

Fixed assets include plant, equipment and other facilities used in business operations. Plant site, if not leased, is one of the major investments of a business. Land held for speculative purposes, however, is not a fixed asset.

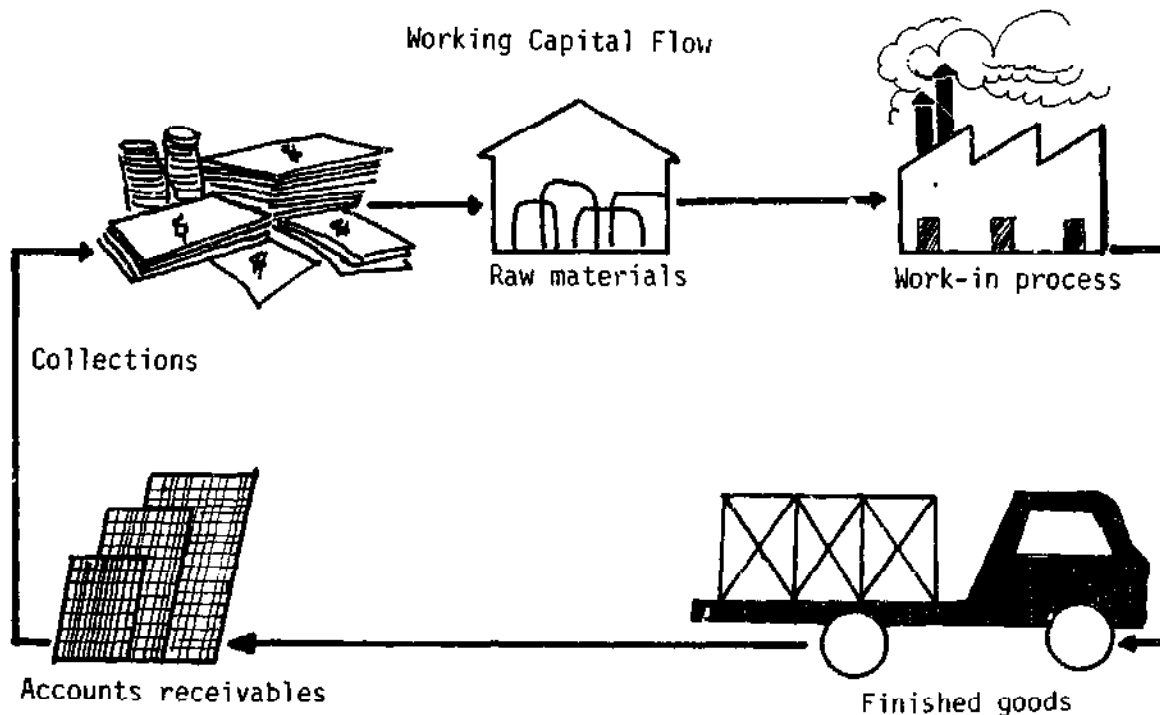
Plant or building is another fixed asset. It is also a major expenditure at the initial stage of the business as well as when it decides to expand. Major improvements on existing building and premises are classified as part of fixed assets.

Equipment includes machinery and other apparatus utilized in the production of goods and services. Examples are production equipment, transportation facilities, material handling devices and other support facilities.

Working capital is the "lifeblood" of the business enterprise. If this "flow of blood" is impaired, then the enterprise cannot keep going. In any business, an adequate and reasonable amount of working capital must be maintained at all times.

A minimum cash balance has to be set aside for day-to-day cash operating and manufacturing expenses. Inventories, in terms of raw materials, finished goods and work-in-process, likewise, must be provided for. Investment in good accounts receivable also forms part of working capital level. The flow of working capital in a business enterprises is illustrated in Exhibit 1.

Exhibit 1
Working Capital Flow



Creditors or those who provide financing for the required resources or assets are interested in the liquidity position of the business. Liquidity is simply the ability of the business to pay its debt. On the other hand, you are not only concerned with the liquid resources of your business but will want to program your fixed asset acquisition and to see to it that these physical resources are put to good use.

The current assets of your enterprise are those classified as part of the working capital. They are current, in the sense that these are constantly in a state of change, i.e., they are converted from one state to another during the normal business operation. For example, cash is converted into raw materials and in turn into finished goods. The immediate liquidity, therefore, of an enterprise is measured in terms of the speed with which the working capital revolves. For example, problem trade accounts receivable will have immediate effect on the ability of the enterprise to pay its liabilities on the dates they are due. If we evaluate the working capital of an enterprise in terms of liquidity, cash will, of course, be the most liquid. This is followed by accounts receivable, temporary investment, inventories and other current assets.

Fixed assets on the other hand, possess physical characteristics and therefore, have long term value. As previously mentioned, plant and equipment are the main components of fixed assets. As such, their usefulness will extend over a long period of time. Considering the large investments in fixed assets, there is a need to maximize their use. Low productivity, therefore, would result in liquidity problems and ultimately in unprofitable operations.

CASH MANAGEMENT

This is the most basic of all the assets and as previously mentioned the most liquid of the working capital. Cash consists of cash on hand or in the bank. Inadequate cash results in the inability of the firm to pay its bills, salaries



and other financial obligations. The need for it may hit the business at any time even when the business is doing well. The increase in sales will require a corresponding increase in cash for raw materials, salaries and other expenses. Other assets may be in good condition, but there is no substitute for cash. You cannot pay off your obligation with account receivable, inventory or with capital assets, can you?

Cash management is essential to the successful operation of your business. The cash position at any given time is a significant index of your firm's ability to grow. In times of prosperity and expansion, there is a need, more than ever, to watch your cash carefully. Unfortunately, the average small entrepreneur tends to be complacent when things are doing well. A study of cash needs is likewise often neglected because entrepreneurs think it is difficult and costly.

Other assets include organization or pre-operating expenses, which are incurred during the organization phase of the business, and long-term pre-payment or deposits, which are liquidated over a period of more than a year.

Avoiding Pitfalls in Cash Management

Small enterprises, because of inherent disadvantages in smallness, are liable to stumble into the many pitfalls in cash management. You should be aware of these common blunders so that you can stay clear from them.

The pitfalls in cash management common to small enterprises include the following:

1. Poor internal control. It may cause cash losses.
2. Lack of cash planning. If you fail to plan your cash requirements, you may find yourself running short of money in the course of operations.
3. Diversion of funds. It is unwise to use working capital funds for purchase of machinery and equipment. In short, use the money for the purpose for which it is intended.
4. Poor collection of bills. First of all, an entrepreneur must make inquiries about the company it extends credit to. Otherwise what guarantee will he have that the bills will be paid on time? A regular follow up on collection of bills must be maintained and a time limit specified in which all bills must be paid.
5. Lack of expense control. Expenses must be balanced to the level of production. This is done by preparing an expense budget. The entrepreneur will then know that he is spending the right amount on administration, selling and other overhead expenses.

Safeguarding cash

Once cash items have been classified accordingly, the entrepreneur has to keep close guard of his cash because it is the easiest form of wealth that can be stolen. Cash can either be:

1. Stolen by employees or persons from outside the firm; or
2. Misappropriated as an item accompanied by a manipulation of records or documents to cover up for the loss.

The following are some ways by which records may be manipulated to conceal the theft:

1. Deliberate commission of error in adding figures in the books of account to cover cash shortages
2. Recording duplicate or false purchase expenses vouchers
3. Entry of names of non-existent persons in the payroll (padding or overloading)
4. Forging of documents
5. Writing off assets to sales discounts
6. Lapping, which means concealment of shortage by delaying the recording of cash receipts.
7. Kiting - e.g., cheque in one bank (A) is deposited in another bank (B) and the amount of the cheque is not shown as a deduction from the balance in bank (A) at the date of transfer.
8. Keeping cash in the establishment

Internal control in small enterprises

Internal control is a system of checks adopted within a business to safeguard its assets, especially cash. This control usually provides that the work of one person will be reviewed and examined by another.

The application and adoption of the principle of internal control will vary from firm to firm depending on the size and facilities of the enterprise. It would range from the elaborate internal control system of a big industrial complex to the small internal control system of a five-man industry.

The following are internal control applications of common use to small firms:

1. Business and personal funds. Business and personal funds should be kept apart because business plans cannot be effectively organized if non-business activities are combined with them. It is difficult to prepare and file the required government reports, including income tax returns, if both business and personal funds are combined.
2. Deposit of cash. Deposit cash collections in the bank intact on the day it is received. If customers send cheques by mail, someone other than the bookkeeper should be designated to open and inspect the incoming mail before it is distributed. Small entrepreneurs have found it practical to scan the mail and separate the envelopes containing cheques.

Simple and effective control over cheques received by mail can be maintained if a list of cheques received is kept and the total is compared to the amount recorded in the bank deposit slips for the day. Any difference calls for an investigation. If it is not practical for the entrepreneur to do this, he should assign someone other than the cashier to list the cheques.

3. Imprest petty cash fund (contingency cash). Establish a separate petty cash fund sufficient to cover small expenses. It can, for instance, maintain a fund of \$500.00. This fund can pay for postage, transportation expense, purchases of small supplies and similar items, eliminating the need to write cheques for very small purchases. The total of the money in this cash fund plus the receipts for expenditures should always equal the imprest amount, in this case \$500.00.

When the fund balance becomes low, list the expenses in detail and draw a cheque payable to the custodian of the fund for reimbursement. The reimbursement cheque should be charged to the appropriate expense accounts. All supporting documents should be marked "Paid." This will prevent subsequent reuse to obtain funds by deceit and misrepresentation.

4. Reconciliation of bank accounts. A very simple but quite effective protection of cash is done through the reconciling of bank accounts by a qualified person other than the cashier. The owner, should review regularly bank reconciliations along with the bank statements. By so doing, he becomes familiar with the status of his funds. He is then assured that the reconciliation is carried out properly. (See Exhibit 2 for an illustration.)

5. Disbursements. Signing of cheques and bad debts must be approved by the owner-manager and not by the persons handling cash and posting records. Review of disbursement documents supplies a positive internal check which results from the owner's intimate knowledge of the business.

Vouchers should be pre-numbered and records of cheques issued should be maintained for reference and control purposes.

The entrepreneur should review and approve bad debt write-offs. This will keep him informed of accounts charged off. This will also prevent an employee from pocketing a customer's payment and writing that account off as bad debt.

6. Tax money as liabilities. To control funds collected from employees, customers, or others like contractors, the owner should see that all tax returns are filed and payment are made. Here is an example:

One company failed to remit to the government tax collection agency the taxes withheld from employees. The company, of course, failed to treat this tax money as a liability. The available cash was used in expanding the business.

The tax agency investigated and discovered that taxes withheld had not been remitted. The company was ordered to remit the whole amount.

In the given example, the tax agency's order can possibly lead the company into bankruptcy especially if the amount involved is big.

The important thing to remember is that the money deducted for withholding tax belongs to the government. The law requires that withholding taxes should be remitted to the government tax collection agency. This tax money must be remitted on time so as not to build up a backlog which may prove harmful not only to the cash situation but to the business in general.

7. Annual audit. An annual audit helps prevent frauds. The fact that an audit is conducted each year may discourage trusted employees who may otherwise be tempted to embezzle funds from the business.

Exhibit 2

Bank Reconciliation Statement
Month of _____

Balance shown per bank statement		xxx
Add: Deposits in transit:		
Date: _____	xxx	
_____	<u>xxx</u>	<u>xxx</u>
Deduct: Outstanding cheques:		
Check No. _____	xxx	
_____	xxx	
_____	<u>xxx</u>	<u>xxx</u>
Adjusted balance per bank statement		<u>xxx</u>
Balance as shown per cheque book:		xxx
Deduct:		
Bank service charge	xxx	
Others	<u>xxx</u>	<u>xxx</u>
Adjusted cheque book balance		<u>xxx</u>

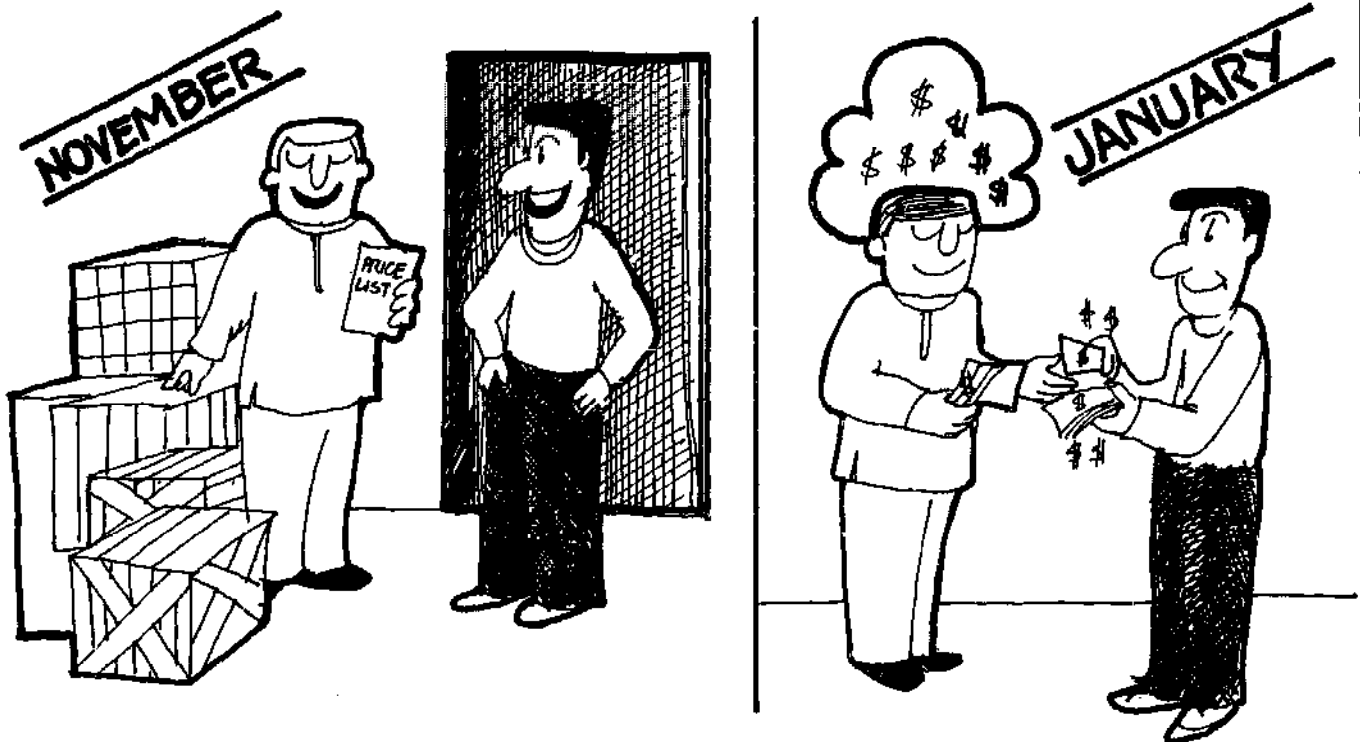
8. Bonding of employees. A fidelity bond is a type of insurance. It provides money which is paid back to the company for losses. To be assured a firm is properly and adequately covered, the coverage should be reviewed with the insurance agent.

Cash budgeting systems

Besides safeguarding cash, the other important feature of cash management is cash planning or cash budgeting. In simple terms, cash budgeting is the process of planning the receipts and disbursements of the firm to determine cash requirements and cash surpluses. It is probably the most important single tool for business control. A knowledge of present and future cash balances would put the entrepreneur in a better position to:

- . Take advantage of money-saving opportunities, such as discounts, economic order quantities, and so on
 - . Make the most efficient use of cash
 - . Finance his seasonal business needs
 - . Develop a sound borrowing program
 - . Develop a workable program of debt repayment
 - . Provide funds for expansion
 - . Plan for investing excess cash
1. Estimating cash inflows

In estimating cash inflows, the terms of the credit extended to customers is considered. If a two-month credit is given to customers the amount of credit sales in November of the preceding year will be the cash collection in January.



Cash sales are also estimated based on historical data. An increase may be provided depending on the economic situation and the type of business. Additional investment from the owner and proceeds from loans may be included.

2. Estimating cash outflows

The following anticipated disbursements must be remembered in estimating cash outflows:

- . cash purchases
- . credit purchase payments
- . salaries and wages
- . advances to employees
- . administrative selling and overhead expenses
- . prepayments, like rentals
- . loans and interests
- . taxes
- . other expenses

3. Effect of depreciation and non-cash items on cash inflows

Depreciation is a cost charged against fixed assets (e.g. building, machinery and equipment) that must be deducted from the revenue to arrive at correct income for the period or year.

Charges to income for depreciation do not affect the total inflow of cash from operations. However, the allowance for depreciation expense as a deduction from income subject to tax have an important effect on the outflow of cash necessary to satisfy tax requirements.

For example:

Gross profit		\$20,000
Less administrative and overhead expenses	\$10,000	
Depreciation	<u>2,000</u>	<u>12,000</u>
Net profit subject to tax		<u>\$ 8,000</u>

If depreciation was omitted, the net income subject to tax would be higher by \$2,000 and accumulated earnings for succeeding years will be overstated.

Apart from depreciation, there are two other non-cash items. These are *depletion* and *amortization*.

Depletion is that portion of the cost of assets like salt, gravel, oil, gas, minerals, etc. allocated to the units extracted therefrom.

Amortization is that portion of the intangible assets costs charged off for the period. Examples of intangible assets are patent, goodwill, copyright, trade mark and organizations costs.

4. Preparing a cash budget

After estimating the cash inflows and outflows, the next step is the preparation of a cash budget. This is a plan which indicates the cash receipts expected to be received and the expenditures expected to be made in a given period. Using figures from the sales forecast and operating budget, a detailed month-by-month forecast of cash expected to be collected and spent is prepared. Cash receipts and disbursements are forecast to determine future monthly excesses and shortages of cash and to foresee the likely timing and duration of peak cash requirements. A simple format of a cash budget for a small manufacturing enterprise is shown in Exhibit 3.

5. Daily cash report

A daily summary of cash will provide information as to the current cash position. This summary should show balance at the beginning of the day and deposits, payments and balance at the end of the day. An example is shown in Exhibit 4.

Dealing with cash shortages

If the cash budget shows certain shortages, it is time to get additional cash first, from internal sources and, if this is not sufficient, from additional sources like banks and other financial institutions.



Exhibit 3

Cash Budget

For Three Months, Ending March 31, 19__

	January		February		March	
	Budget	Actual	Budget	Actual	Budget	Actual
EXPECTED CASH RECEIPTS						
1. Cash sales						
2. Collections on accounts receivable						
3. Other income						
4. Total cash receipts						
EXPECTED CASH PAYMENTS						
5. Raw materials						
6. Payroll						
7. Other factory expenses						
8. Advertising						
9. Selling expense						
10. Administrative expenses						
11. New plant and equipment						
12. Other payments (taxes, repayment of loans, interest)						
13. Total cash payments						
14. EXPECTED CASH BALANCE beginning of month						
15. Cash increase or decrease (item 4 minus item 13)						
16. Expected cash balance at end of month (item 14 plus item 15)						
17. Desired working cash balance						
18. Short-term loans needed (item 17 minus item 16 if item 17 is larger)						
19. Cash available for short-term investments (item 16 minus 17 if item 16 is larger than item 17.)						

Exhibit 4

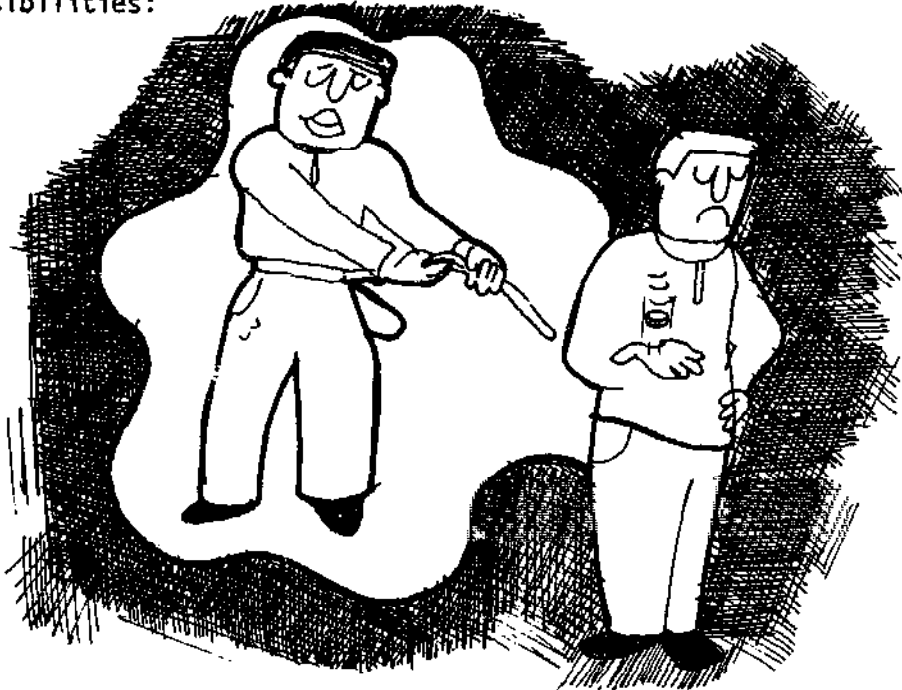
Daily Cash Report

Date: _____

Opening cash balance		xxx	
Plus: deposits			
Cash sales	xxx		
Accounts receivable	xxx		
Others	<u>xxx</u>	<u>xxx</u>	
Total cash available			xxx
Less: Disbursements			
Cash purchases	xxx		
Accounts payable	xxx		
Payroll	xxx		
Miscellaneous expenses	<u>xxx</u>		<u>xxx</u>
Closing cash balance			<u>xxx</u>

Cash can be obtained internally by:

1. Tightening trade relationships. You may not always think of your various trade relationships as source of cash. Yet, they can be. The following are some possibilities:



- a. Terms of trade. Customers may be persuaded to pay upon the delivery of merchandise.
 - b. Collection schedules. Earlier payments may be arranged with your customers to augment the amount of ready cash.
 - c. Payment methods. Progressive billing for completed portions of an order, may be another arrangement acceptable to customers. Under the latter arrangement, a customer, in effect, finances part of the firm's future production which is intended for him.
2. Watching receivables. Tighten credit and collection policies in order to reduce the outstanding amount of receivables and increase cash inflows.
3. Watching inventory. This can be done by:
- a. Reducing purchases of raw materials not immediately needed.
 - b. Purchasing components, parts, and even subcontracting services from other manufacturers.
 - c. Deferring payments to suppliers until such time that payment for finished goods are received. In this case, depletion of ready cash is avoided. Prompt payment discounts, of course, should not be overlooked.
4. Watching work-in-process. The entrepreneur must carefully check work-in-process. Some of it can be brought to completion and sold ahead of schedule. If this speed-up is economical (if it does not mean a large outlay for overtime pay), he can quickly pump in ready cash into his business.

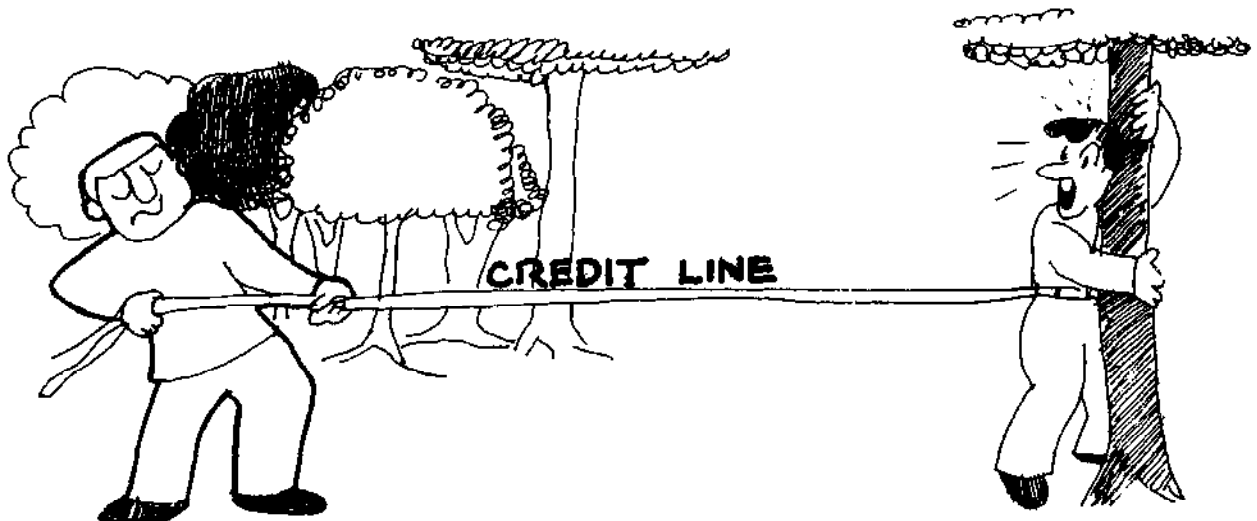
5. Watching backlog. Production can be increased significantly so that orders can be shipped faster than anticipated. However, the entrepreneur must not forget to obtain new orders, too.

6. Watching the bank account. Scattered accounts in one bank may be consolidated in order to minimize service fees charged for below minimum accounts, or to reduce the idle minimum amounts (kept in the bank to avoid service charges), thus utilizing funds for operations or investments.

On the other hand, sources of external financing include:

1. Credit lines. One source of external financing is through credit lines. Credit lines have advantages: they may be obtained through good relationships with the bank; are flexible; and are relatively cheaper than other types of loan because the risk involved is low and it is always covered by collateral. Interest rates vary according to the terms and conditions set by the Central Bank of the country.

The disadvantage of credit lines is that they are available to meet only short-term needs.



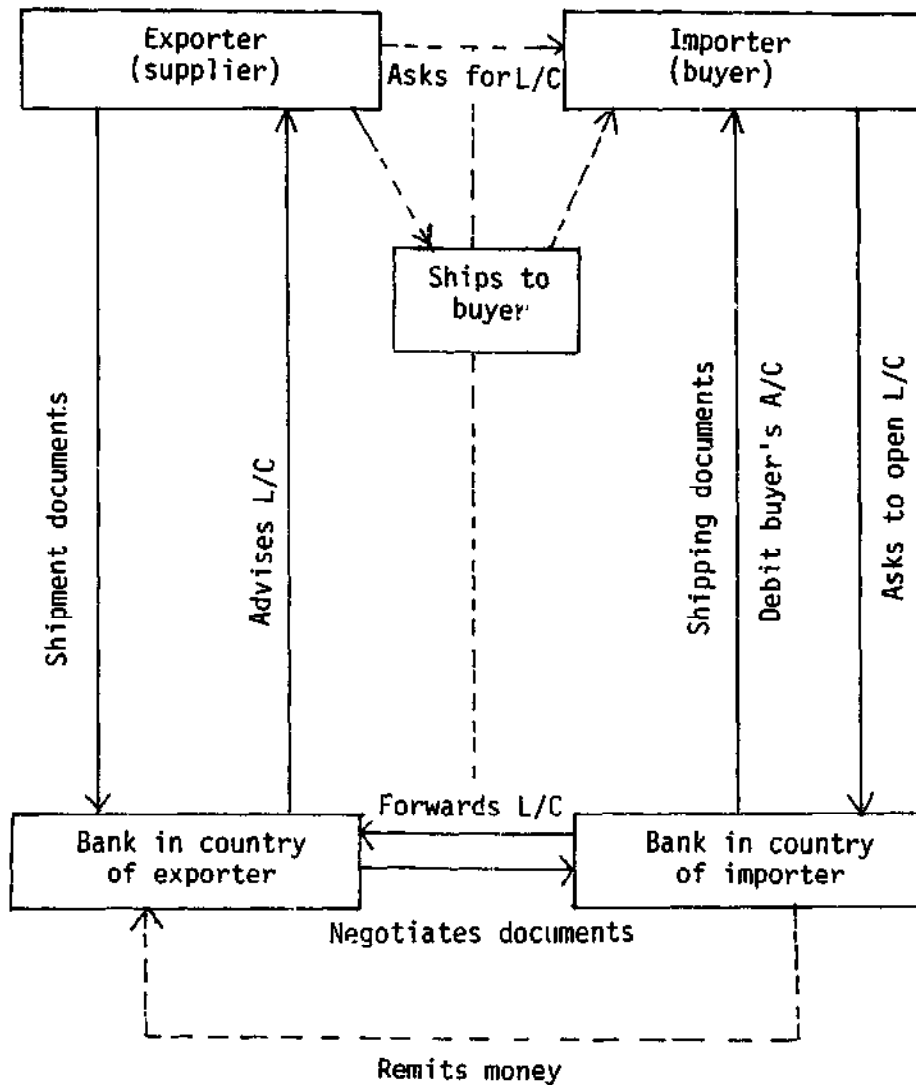
2. Suppliers. The entrepreneur can make an arrangement with his suppliers who may allow him to stretch his payment schedule, so that he can always maintain a certain level of cash on hand.

3. Letter of credit. Another source of cash is through letter of credit, which is an authorization by a bank to a seller to draw on it for funds within a stated amount and time, in payment for specified goods to be shipped to the buyer abroad or within the country. This authorization proceeds from an order of a correspondent bank abroad or in another part of the country in which the buyer has deposited or will deposit an equivalent amount in the local currency. When the goods have been delivered by the seller or exporter to the inland carrier (FOB) or to the port of exit (FAS) in accordance with the terms of the letter of credit, the documents evidencing the type and quantity of goods delivered are presented to the bank after which payment is made to the exporter/seller. (Refer to Exhibit 5 for the flow process of documents and remittance through letter of credit).

Exhibit 5

Export Under Letter of Credit (L/C)

Say, contract for export 1,000 jeans valued at \$10,000



DP : Delivery of documents to buyer against payment

DA : Delivery of documents to buyer against acceptance - That is, undertaking to pay bill on due date.

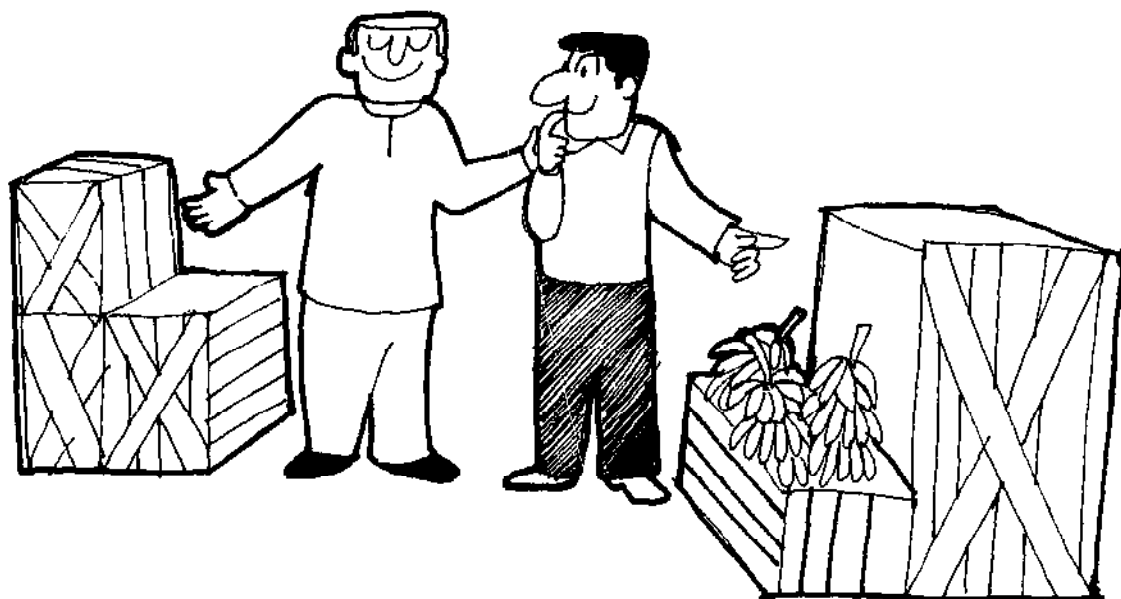
4. Short and long-term loans from banks/financing institutions. Entrepreneurs can avail of loans and/or loan assistance from the various financial institutions in their respective countries. (See Appendix 3).

MANAGEMENT OF ACCOUNTS RECEIVABLE

The level of accounts receivable is determined by two factors: the volume of credit sales and collections, and the average period between sales and collections. However, there are three major variables that have to be considered in credit and collection.

Credit standards

By granting credit only to a few selected customers, the entrepreneur will avoid bad debt losses. On the other hand, the firm is liable to lose sales by so restricting credit and the profit foregone on lost sales could be more than the costs avoided. In determining the optimal credit standard it is necessary to equate the marginal costs of credit with the marginal profits on increased sales. Marginal costs here include bad debt losses, investigation and collection costs and higher cost of capital because money is tied up in receivables.



Since credit cost and quality of credit are correlated, it is important to be able to judge the quality of an account. Quality is defined in terms of probability of default. The following factors must be considered in evaluating credit worthiness:

1. Character, refers to the probability that a customer will pay his obligations. This is very important because every transaction implies a promise to pay.
2. Capacity refers to the subjective judgment of the ability of the customer to pay his debts. This is measured by his past record, supplemented by physical observation of the customer's business operations.

3. Capital is measured by the general financial position of the firm as indicated, for instance, by a financial ratio analysis, with special emphasis on the tangible net worth of the enterprise.
4. Collateral is represented by assets that a customer may pledge as security of the credit extended to him.
5. Condition refers to the impact of general economic trends on the firm, or any new developments in certain areas of the economy.

Based on the above factors, customers and/or potential customers may be ranked before a decision is made as to how much credit risk your firm should take.

Terms of credit

The terms of credit should specify the period for which credit is extended and the discount, if any, given for early payments. For example if your company's credit terms are stated as "2/10 net 30," this means that a two percent discount from the stated price is granted if payment is made within ten days, and discount is not taken if paid within 30 days from the invoice date.

Liberalizing the credit period stimulates sales, but there is a cost of tying up funds in receivables. The effect of giving cash discounts is to induce more customers to pay cash rather than ask for or avail of credit.

Collection policy

This refers to the procedures a firm follows to obtain payment of overdue accounts. For example, a letter may be sent out when the account is ten days past due; a more severe letter, followed by a telephone call, may be used if payment is not received within 30 days; and the account may be turned over to a collection agency after 90 days.

The collection process can be expensive in terms of out-of-pocket expenses and lost goodwill. A balance needs to be struck, depending on the situation.

Aging of receivables

Another very important technique for keeping track of your receivables is the aging schedule. In the aging schedule, the accounts receivable are classified according to the date of sale and summarized as in the following example:

<u>Receivable outstanding</u>	<u>Amount</u>	<u>Percentage</u>
less than 30 days	\$22,610	70
30 to 45 days	3,530	11
45 to 60 days	3,510	11
60 to 90 days	1,910	6
over 90 days	<u>620</u>	<u>2</u>
Total	<u>\$32,180</u>	<u>100</u>

TOOLS OF FINANCIAL MANAGEMENT

Aside from understanding the concepts of efficient management of assets, you should be aware of the basic tools of financial management. These tools help you reach your profitability objectives as well as enable you to run your enterprise with some degree of professionalism.

As a small entrepreneur, you are faced with the problem of how to cost your product for pricing. In most cases, costing is based on imprecise estimates. Furthermore, intuition, rather than facts and figures, dictate a decision to acquire fixed assets. Pre-occupation with day-to-day operation and business routine lead to a failure to plan. This may result in an inability to cope with changes in the business environment when adverse conditions happen. A misunderstanding of capital investment concepts may bring about over-expansion of under-utilized facilities. All these shortcomings which often cause business failure may be avoided with a thorough understanding of financial management tools: cost accounting, budgeting, budgetary control, and capital budgeting.

COST ACCOUNTING

The term cost may be defined as the total valuation of all expenditures incurred in connection with a specific activity such as the manufacture of products and the provision of services.

Essentially, cost accounting is concerned not with the overall results of the business but with the efficiency of the various sections of the business.

The primary objectives of cost accounting are to determine product costs as an aid to pricing and to control the cost of business operations by associating costs with centres of responsibility, comparing actual with planned cost and taking corrective action.

Product costs are determined by relating prices paid for materials, labour and overhead expenses to some unit of output or accomplishment. Product cost information influence pricing decisions. It also provides a basis for inventory needed to measure periodic business income.

Controlling costs is a part of your responsibility of carrying on the functions of a business efficiently and economically. Knowing the cost of making a product, performing a manufacturing operation or carrying on some functions of a business is a starting point in control. By comparing detailed cost data with budgets, standards and other yardsticks, you find a basis for controlling costs and planning operations.

The field of cost accounting is rather broad. This handbook will therefore discuss only those concepts and application most appropriate to small businesses.

Cost elements

The cost of any product consists in general of three elements: direct materials; direct labour; and manufacturing overhead. Each element has two aspects, namely quantity and price.

1. Direct materials cost is the cost of materials incorporated in the product and measurable as such. Certain minor materials, such as glue or nails, may be considered as either supplies or indirect materials, because of impracticability of assigning these items of specific units of product. Moreover, the cost per unit may be too insignificant to measure as direct materials cost and may then be classified under manufacturing overhead as indirect materials cost.

2. Direct labour cost is the labour cost directly traceable to a specific product, like the salaries of machine operators and assemblers. Labour cost that cannot be traced to the product is included as part of manufacturing overhead as indirect labour. Indirect labour includes storemen, foremen, transport drivers, office clerks, inspectors, managers and others.

3. Manufacturing overhead cost. This refers to factory costs other than direct materials and direct labour. Included under manufacturing overhead are the cost of indirect materials, indirect labour, depreciation, repairs, maintenance, heat, light, etc. These costs are sometimes called costs of capacity, whereas direct materials and direct labour are often known as costs of products or prime costs. Conversion cost consists of direct labour and factory overhead.

There are two major types of factory overhead:

a. Variable factory overhead - The main examples are supplies, power, and depreciation, if the computation is based on units of production.

b. Fixed factory overhead - Examples are rent, insurance, property taxes and most indirect labour.

Cost accounting systems

A cost accounting system is a method of developing cost information within the framework of general ledger accounts. Because cost accounting is highly developed in manufacturing industries, we shall focus our attention on manufacturing costs. The following are types of cost systems:

1. Job-order costing

Under a job-order cost system, cost is associated with a job. The cost of raw materials, direct labour and factory overhead applicable to each job is compiled and divided by the number of finished units in the job to arrive at average unit cost. This method is used by companies whose products are readily identified by individual units or batches, each of which receives varying degrees of attention or skills. Sometimes selling and administrative overhead is charged to job costs, as a percentage of manufacturing cost, to compute total job cost. Industries which commonly use job order methods include construction, printing, aircraft, furniture and machinery.

For job-order costing, the job itself is the focal point for cost identification. The costs are assigned to the jobs passing through the plant and recorded on forms called *job cost sheets*, as shown in Exhibits 6 and 6-a. From an accounting viewpoint, the job cost sheets represent individual pages in a subsidiary cost of ledger.

Each job cost sheet is usually divided into three basic sections: materials, labour and overhead. These three cost elements are accounted for separately.

Exhibit 6
Job Cost Sheet

For _____ Order no. _____
Product _____ Quantity _____
Date wanted _____ Date started _____ Date completed _____

Direct Materials

Date	Dept.	Req'd No.	Stores no.	Quantity	Cost per unit	Total cost
------	-------	-----------	------------	----------	---------------	------------

Direct Labour

Date	Dept.	Time card no.	Description	Hrs. or pcs.	Rate	Total cost
------	-------	---------------	-------------	--------------	------	------------

Applied overhead

Date	Dept.	Basis	Rate	Total cost
------	-------	-------	------	------------

Summary for Order no. _____

Direct Materials _____
Direct Labour _____
Applied overhead _____

Total factory cost _____
Factory cost per unit _____

Exhibit 6a
Job Cost Sheet

For _____ Order no. _____
Product _____ Quantity _____
Date wanted _____ Date started _____ Date completed _____

<u>Direct Materials</u>			<u>Direct Labour</u>		<u>Applied overhead</u>		
Date	Req'd. No.	Amount	Date	Time card no.	Amount	Basis Rate	Amount

Summary for order no. _____

Direct materials _____
Direct Labour _____
Applied overhead _____

Total factory cost _____
Factory cost per unit _____

Materials requisitions provide the basis for charging direct materials to a job (See Exhibit 7). In the materials section of the job cost sheet, space is provided for the description or types of materials used and quantities are given along with the costs.

The basis for charging direct labour to a job are job time tickets or cards as illustrated in Exhibit 8. Usually each worker has one time card for each job. The rate and the total hours consumed by the workers are entered into the job cost sheet with the corresponding costs.

Predetermined overhead rates, obtained from a forecast, are used to allocate the appropriate amount of factory overhead cost to the job. The factory overhead rate for a job can be determined by:

- a. Computing total overhead cost for the job
- b. Selecting a measure of activity
- c. Dividing the overhead cost by the measure of activity to compute the overhead rate.

Activity for overhead rates may be measured by one or more of the following:

- a. Direct labour cost, or
- b. Direct labour hours, or
- c. Machine hours, or
- d. Prime cost.

A section in the job cost sheet is usually provided in which a summary of costs is shown and the unit cost is determined. This section is completed as soon as the job is finished.

The use of predetermined rate raises the question of what to do with the difference between the overhead applied to production and the overhead costs actually incurred.

If the actual overhead allocated is less than estimated, there will be a balance of overhead not charged to jobs. This is known as *undercharged* overhead and this may be carried as additional asset value in inventory, since it may tend to fluctuate from month to month. Conversely if the actual overhead exceeds estimate, there will be an *overcharged* overhead.

Inevitably there will remain some difference between overhead incurred and applied at the end of the year. In reporting net income for the year on the basis of costs actually incurred, the final net difference (either over or undercharged) will be considered as an adjustment to cost of goods sold in the profit and loss statement.

Exhibit 7
Materials Requisition

Date _____

Requisition no. _____

For _____
Department or operator

Product order no. _____

Requested by _____

Stores no.	Quantity requested	Description	Qty. issued	Unit cost	Total cost
---------------	-----------------------	-------------	----------------	--------------	------------

Received by: _____

Date: _____

Exhibit 8
Job Time Card

Name _____ Card no. _____

Department _____ Clock no. _____

Date	Production order no.	Machine no.	Time started	Time stopped	Total hours	Wage rate	Total	Cost
------	-------------------------	----------------	-----------------	-----------------	----------------	--------------	-------	------

- 181 -

No. of pieces finished: _____ Approved by: _____

2. Process costing

Under a process cost system, the focal points in costing are the various departments or processes in the production cycle. The cost of raw materials, labour and manufacturing overhead applicable to each department or process for a given period of time is compiled. The average cost of running a unit of product through each department is determined by dividing the total departmental cost by the number of units processed during the period.

Process costing is used by companies during continuous flow of similar products such as chemicals, oils, textiles, paints, paper mills, flour, canneries, rubber, steel, glass, food processing, mining and cement.

The advantages of a process cost system are:

- a. Costs are computed periodically, usually at the end of the month.
- b. Average costs are calculated easily, provided the product is homogeneous.
- c. Less clerical work and expense are involved than in job costing.

However, there are problems and disadvantages which includes:

- a. Where the process costs are historical costs, they are not determined until after the end of the cost period.
- b. Average costs are not always accurate because the units are not fully homogeneous.
- c. Where different products are manufactured, the pro-rating of joint costs is necessary and the computation is made more difficult.

The main advantage of job-order costing system is that it compiles data in a manner that is most useful in the administration of certain kinds of business. However, it is an expensive system to operate because it involves considerable detailed clerical work. It is important that job costing is only used in situations where it is necessary.

3. Contract and batch costing

In contract costing, labour, materials and other costs are direct contract costs. Overhead expenses are charged to contracts on an appropriate basis.

The actual cost of the contract may be compared with the budgeted or estimated costs as a control on the:

- a. Profitability of the job
- b. Efficiency of operations
- c. Accuracy of the estimates

Usually, profits are ignored on contracts not yet completed. However, it is advisable to credit part of the profit earned each year for contracts that will last for several years to avoid profit fluctuation.

On the other hand, batch costing is job costing for a group or batch of identical products. One example is costing for garments manufacturing.

Applications

After discussing the concepts we shall now deal with applications. The following problems frequently encountered in manufacturing activities have been chosen to illustrate cost accounting applications.

1. Initial costs

The difference in units between the normal level of activity and the actual level of production multiplied by the fixed overhead cost rate represents the amount of loss because of the condition previously discussed.

Two distinct situations of initial idle capacity using

- a. Underutilization of plant capacity during the take-off period stage. Anticipated demand eventually will maximize available capacity.
- b. Idle capacity as a result of a decision to choose a higher plant capacity to anticipate expansion. The firm may decide to invest in plant capacities now than in the later years in anticipation of inflationary cost on capital investment and better products.

Example:

A plant has been built for a sales volume of 10,000 units. In the first year the demand is estimated to be 6,000; and in the second year, 7,000 units. On the third year the normal sales volume is reached. The normal fixed overhead costs with a volume of 10,000 units are \$500,000. The variable cost per unit is \$60. The plant has a life of 20 years.

The initial costs are computed as follows:

Idle capacity cost first year

$$(10,000 - 6,000) \times \frac{500,000}{10,000} = \$200,000$$

Idle capacity cost second year

$$(10,000 - 7,000) \times \frac{500,000}{10,000} = \underline{150,000}$$

T O T A L \$350,000

Total units to be produced during the life of the plant are 300,000 units, the initial cost is \$2.00 per unit; the total costs per unit are therefore estimated at:

Variable	\$60.00
Fixed	50.00
Initial	<u>2.00</u>
	<u>\$112.00</u>

BUDGETING AND BUDGETARY CONTROL

An essential quality of the successful entrepreneur is foresight. You need to know about how the enterprise will fare in later years in monetary terms. A comprehensive budget expresses in a common monetary language the plan of future activity. It takes accounts of past performance and how resources can be used to achieve the desired objectives. It, therefore, set targets or goals for the whole enterprise or its various different units.

Key elements of a budget

It is clear that budgeting is essential to a progressive and farsighted entrepreneur. The following key elements should be considered in preparing operating budgets for a business enterprise:

1. Sales

The key to overall business activity is the sales target. Given a sales target, you will be able to forecast the other figures in the operating budget by percentage analysis, or by responsible estimates.

Income must always be assessed first simply because money cannot be spent unless there is income. Thus the forecast of sales is of paramount importance in preparing a company's budget. The market demand for the product has to be researched, examined and assessed. The market share which the firm has and aims to have must be established. The product has to satisfy the demand and must be continually developed to this end. Remember that customers demand the best quality at a price they are willing to pay.

2. Product cost

The product cost is the expense involved in making or buying a product, packing it and getting it ready to be sold. The estimate of the cost of manufacturing a product at the required number is a part of the operating budget.

3. Selling expenses

These include cost of advertising, promotion, salesmen's salaries, sales offices, delivery to customers, after-sales service, etc.

4. Administrative expenses

These expenses involve expenditure for managing, office personnel, accounting and general services.

5. Interest and financing costs

All businesses borrow money at one time or another and interest is always involved. These costs are kept separate.

A simple operating budget is shown in Exhibit 9.

Exhibit 9

Operating Statement Year 0
and
Operating
Budget Years 1 - 3

	Year 0	Year 0	Year 1	Year 2	Year 3
Sales	\$1,000.00	\$5,000	\$10,000	\$20,000	\$40,000
Cost of sales	<u>600.00</u>	<u>3,000</u>	<u>6,000</u>	<u>10,000</u>	<u>16,000</u>
Gross profit	\$ 400.00	\$2,000	\$ 4,000	\$10,000	\$24,000
Administrative & overhead expenses	<u>300.00</u>	<u>1,500</u>	<u>3,000</u>	<u>4,000</u>	<u>10,000</u>
Net profit	<u>\$ 100.00</u>	<u>\$ 500</u>	<u>\$ 1,000</u>	<u>\$ 6,000</u>	<u>\$14,000</u>

Assumptions:

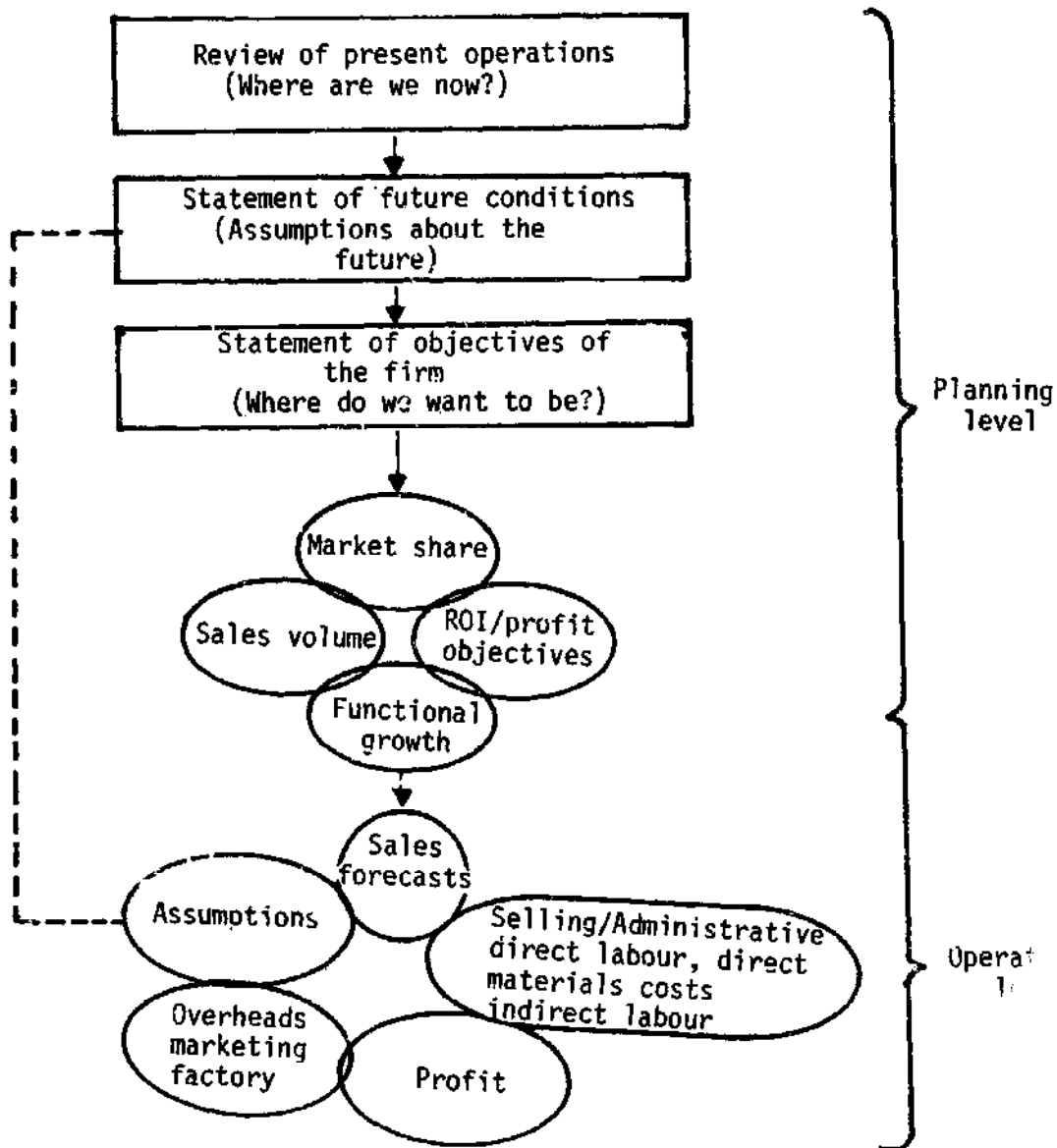
1. Year 0 - actual
2. Year 1 - Sales \$10,000, percentages the same as year 0
3. Year 2 - Sales \$20,000, cost of sales \$10,000, overhead expense 20% sales
4. Year 3 - Sales \$40,000, gross profit 60%, overhead expense \$10,000

Types of Budgets

1. The first to be prepared is the *operating budget*, which sets out the estimates of income and expenditures. While an operating statement shows sales, cost of sales, overhead expenses and net profit for a past accounting period; an operating budget, on the other hand, is a forecast, plan and target of an operating statement for a future accounting period.

An operating budget can never be "correct" since it is based on assumptions. The usefulness of the budget rests on the validity of its underlying assumptions. The two major stages in budgeting are *planning* and *operations*. (See Exhibit 10).

Exhibit 10
Simplified Budgeting Process



Planning involves making a clear statement of the desired objectives and goals of the enterprise such as:

- a. Market share - What is the expected market share of the company?
- b. Sales volume - What is the sales target?
- c. Profitability - How many per cent is the expected profit that the enterprise can attain?
- d. Return on investment - How many per cent is the desired ROI?
- e. Rate of growth - What is the expected rate of growth in terms of total assets employed?

The present operations are then reviewed to serve as guidelines in preparing the budget estimates.

In budgeting sales for instance, the following conditions must be considered:

External conditions

- The general business conditions expected to prevail during the coming period
- Local business conditions expected to prevail
- The trend of population in the trading area
- Probable changes in purchasing power
- Expected changes in the competitive market
- Fashion movements expected (for garments)

Internal conditions

- Changes in promotional policies
- Changes in location and space
- Changes in personnel
- Changes in physical arrangement and merchandise layout
- Changes in price policy
- Changes in credit policy

The second stage in budgeting is *operations* or the actual activities of the enterprise. Here the following budget estimates are made:

- . Sales
- . Direct labour and direct materials

- . Manufacturing overhead
- . Selling and administrative expenses
- . Profit

2. While the operating budget provides an idea of the expected revenue and expenditure during a future period, the *financial budget* reveals the amounts of cash flowing in and out of the enterprise during the budget period. It is important to plan your cash to finance immediate operations.

A *cash budget* translates budgeted sales, costs and expenses into a forecast of monthly and weekly cash receipts and disbursements based upon assumptions as to credit terms. Thus a sale on January 20th at credit terms of 60 days from invoice date becomes a cash receipt in the month of March.

Forecast cash receipts and disbursements to determine future monthly excesses and shortages of cash and to see in advance the likely timing and duration of peak cash requirements. Plan to make adequate cash available when required and to avoid excessive idle cash balances which do not earn profit. Failure to estimate future cash flow, and to control it continuously, can lead to serious consequences and, worse, the closure of the business.

How then is a financial budget prepared? First, you need to know the probable financial situation at the beginning of the period through a balance sheet. This is often merely estimated since it is not advisable to wait until the final document is prepared because part of the year shall have gone by then.

Second, examine the operating budget. It is not possible for example, to estimate the cash coming from customers if the sales have not been estimated.

When we talk of the budget process, we deal with the operations budget, the short-term cash budget and long-term funds budget. All these are brought together into a budget of the over-all financial position which involves the preparation of a budgeted balance sheet.

A balance sheet shows the assets of the business at a particular moment in time and how they are financed from debts and owner's equity. Here the balance sheet as at the beginning of the budget period is considered as the *actual* balance sheet and the expected balance sheet at the end of the period is known as the *budgeted* balance sheet.

A budgeted balance sheet sets targets in terms of required assets for a given level of activity and shows how those assets are to be financed from the owner's capital and debts.

From the sales target in the operating budget the networking capital (current assets less current liabilities) may roughly be forecasted in the budgeted balance sheet. The remaining figures of fixed assets, loans and owner's equity are estimated according to management policies.

The usefulness of a balance sheet depends upon the validity of its underlying assumptions. Broad assumptions justify broad figures but very detailed figures are normally not useful to the entrepreneur. Several budgeted balance sheets may

be made on different assumptions to show the sensitivity of the overall financial position of the company to the different assumptions.

It is clear that budgetary control is a very valuable tool in management. It is better to start with one department and extend the procedure to other departments step by step so that in a few years a workable operating procedure embracing all the activities in the company can be evolved. Cost accounting is applicable only to industries, while budgetary control can be adopted for use in any type of organization.

CAPITAL BUDGETING ANALYSIS

Capital budgeting is planning expenditures whose returns come in beyond one year. It is that tool of financial management which deals with the acquisition of assets such as land, buildings, machinery and equipment. It involves taking today risk of substantial investment (high capital outlay) for benefits later.

Capital budgeting analysis starts with certain givens or assumptions: ^{1/}

- . Size of the investment (how much to invest?)
- . Horizon (how long will the project be working?)
- . Annual savings (how much to save each year?)
- . Terminal value (what to get back by selling the assets at the end of the project?)
- . Tax and interest rates (what tax rates and interest rates are relevant?)

Capital budgeting is also a managerial tool for making better decisions. The decision to buy or construct a fixed asset that will last for five years is an implicit five-year sales forecast. The economic life of an asset purchased represents an implicit forecast for the duration of the economic life of the asset. Hence, failure to make the forecast accurately will result in over-investment or underinvestment in fixed assets. Good capital budgeting is, therefore, a condition for viability; it will also improve the timing of asset acquisition and the quality of assets purchased. The following are some aspects of capital budgeting:

Elements

Capital budgeting involves essentially the gathering of information for decision making. There ought to be present three circumstances to make capital budgeting possible. It is necessary to have:

1. Data about future receipts and costs from a proposed investment.
2. A criterion to select the proposed investment.
3. Alternatives, mostly in the form of more investment proposals.

^{1/}Boland and Oxtoby. *DCF for Capital Investment Analysis*, 1.

Procedures

A number of steps comprise a complete capital budgeting program. These steps, which include procedural measures as well as analytical ones, are listed below:

1. Prepare a list of investment proposals classified by category:
 - a. replacement,
 - b. expansion,
 - c. cost-saving or product improvement, and
 - d. new products. The time horizon covered will include one-year, three to five-year and long-term plans.
2. Study and present probable savings or other justifications on the proposed outlay.
3. Rank proposed projects using criteria which reflect interest factors.
4. Develop a rule for applying a cut-off.
5. Determine the total amount of funds required for accepted projects.
6. Determine the amount of internal funds available and external funds required.
7. Decide the total external funds that will be obtained. This may be less than the total under Item 6. Funds rationing will have to be formulated.
8. Decide on the manner the external funds will be raised.
9. Determine the procedures for approval of outlays requested.
10. Determine procedures for monitoring uses of appropriate funds.
11. Evaluate results of expenditures on proposals, projects and new products.
12. Take corrective actions to improve capital-expenditure policies and actions.

Methods

In many companies, there are more proposals for projects that the business is able or willing to finance. Some proposals are good; others are poor. Methods for distinguishing meritorious from unworthy proposals must be developed. Essentially, the end product is a ranking of the proposals as well as a delineation of the amount of funds for each of them.

Some proposals are eliminated because they are mutually exclusive. An example of mutually-exclusive proposals are those for purchase of alternative pieces of equipment to do the same job. If one equipment is chosen to do the job, the others will not be required. Thus, if there is a need to improve the process control system in a chemical plant, the job may be done by additional instruments or by new types of equipment. In other words, the selection of one method to do the job makes it unnecessary to use the others.

Independent items are pieces of capital equipment which are being considered for different kinds of projects that need to be accomplished. For example, in addition to the items cited above, the chemical firm may likewise need equipment

to package and to measure the end products. The work would call for a packaging machine. And the purchase of equipment for this purpose is independent of the purchase of the equipment for process control.

A ranking procedure must be developed in order to allocate properly the company's capital funds. The ranking procedure involves, first, the calculation of estimated savings from the use of equipment; and second, translation of the estimated savings into a measure of the advantage to be derived from the purchase of equipment. Thus an estimate of savings is required, and a conversion of the savings into a ranking measure must be developed.

An indication of the nature of the task of calculating savings from a proposed investment is indicated by a brief consideration of the items that may affect savings. This include changes in the quality of the product, in the quality and quantity of direct labour, in the amount and cost or scrap and rework time, in maintenance expenses, safety, flexibility, etc. So many variables are involved that it is very difficult to generalize savings or advantages. Yet each capital equipment expenditure must be examined in detail for possible additional costs and savings. Therefore, although generalizations are not possible, the crucial importance of making savings analysis should not be overlooked.

The quantitative approach to the selection of the measures of profitability of investments is used to estimate the effect of the alternatives on cash flows in relation to the required investments. The following are the most common techniques in arriving at the rate of return and selecting from various alternatives:

1. Payback

The payback method calculates the number of years required to recover the original investment by cash flows before depreciation but after taxes. It measures the time required for the sum of the annual net cash savings after taxes to equal the net cash investment required by the project. However, this method will be reliable only if the equipment to be compared are equal in amount and have the same life estimates with little of residual salvage values.

For example, investment project "A" and "B" are proposed. Project "A" needs an initial investment of \$1,000 and anticipates economic life of four years. Project "B" likewise needs an initial investment of \$1,000 but projects an economic life of six years. During the lifetime of the two projects, it is expected that there will be sales income from the products by the investment minus cash expenses. This amount is called cash flow. The cash flows of the two projects are shown in Exhibit 11.

The payback period is three years for Projects A and four years for Project B. The shortest period is to be chosen as preferable.

Though the payback is simple and easy to calculate it can lead to wrong decisions. It ignores income beyond the payback period as shown in the cash flow. If the project is one which matures in later years, the use of payback period can lead to the selection of less desirable investments. Investments with a longer payback period are those involved in long-range planning like developing a new product and a new market. All of these factors require initial investments which do not yield their highest return until a number of years later.

Exhibit 11

Cash Flow of Projects "A" and "B"

<u>Year</u>	<u>Project A</u>	<u>Project B</u>
1	\$ 500	\$ 100
2	400	200
3	300	300
4	100	400
5		500
6		600

Another weakness of the payback method is that it fails to take into account the interest factor. This can be a very powerful factor at high rates of interest. For example, at a 30% interest rate, a dollar received five years later is worth only about 27 cents today. Thus the interest factor is too powerful to be safely ignored in making sound investment decisions.

2. Average Rate of Return

The average rate of return is defined as the ratio of average annual net income after taxes over average investment. Average annual net income is the accounting income after depreciation and after taxes.

In the above example, the average rate of return of Project "A" is 15 percent; for Project "B", 37 percent; these are computed and shown in Exhibit 12.

The fundamental weakness of this method is that it disregards the time value of money. It fails to take into account the interest factor. Everybody knows that a dollar today is worth more than a dollar after five years.

Exhibit 12

Average Rate of Return of Projects "A" & "B"

Project A

$$\frac{(500 + 400 + 300 + 100) - (1,000)}{(1,000 + 0) \div 2} \div 4 = 15$$

Project B

$$\frac{(100 - 200 - 300 - 400 - 500 - 600) - (1,000)}{(1,000 + 0) \div 2} \div 6 = 37$$

The average rate of return provides a better estimate of the rate of return over the payback method under the following circumstances:

- a. The annual net income after taxes is constant.
- b. The project has no significant salvage value.
- c. The life of the project is less than twice the payback period.

RECORDKEEPING

The foundation of good financial management is good financial information. No amount of cash planning or budgeting or even application of costing principles will be effective if accounting records are not in order. Historical records must be established as the basis of future business decisions. A simplified bookkeeping system will serve the purpose as long as there is a commitment of management to enforce and use the system.

Any business, large or small, should maintain an efficient record keeping system. All business transactions should be recorded in full and on paper. Many businesses fail because of inadequate record keeping. A business may have an excellent product, a high sales volume and a good profit margin but, without proper records, it may be operating blindly and its chance of success becomes limited.

WHY KEEP RECORDS?

A question often asked by a small business owner is: "Why do I have to keep records?"

There are at least six reasons why record keeping is important in the small enterprise.

1. The law requires that some forms of records be kept by all businesses.
2. In times of keen competition, rising costs and increasing taxes, there can be no alternative to good record keeping. Every business must keep accurate and adequate records for successful operation.
3. There must be complete accounting of all business transactions for the modern small enterprise to efficiently handle purchases and sales, inventory control, credit and collection, depreciation, expense control, personnel and reports required by law and other aspects of business management.
4. Adequate records can provide answers to the following questions:
 - a. How much profit is the business earning?
 - b. How much is the business worth?
 - c. How much do credit customers owe the business?
 - d. How much does the business owe its creditors?
 - e. How much tax should the business pay?
5. Good records aid income tax reporting through a number of ways.
 - a. For determining income

As an entrepreneur, you are required to keep permanent records, including inventories, to establish the amount of your gross income, expenses, deductions, credits, etc. As a taxpayer, you have to carry the burden of proof in order to justify your income tax return. And what better proof to show than substantial, well-kept records!

- b. For reducing tax liability and avoiding penalties

Good records make possible reduced tax liability a perfectly viable goal if arrived at by legal means. You can arrange your business affairs in such a way that your taxes are kept as low as possible. This is what is known as *tax*

avoidance. Lawyers can help you apply the provisions of the tax code in such a way as to reduce your tax liability. But if he does not keep adequate records you may not be able to defend your income tax return successfully upon audit or reassessment.

Since income tax is a major item and will probably involve thousands of dollars, here are some tips on how to save on taxes.

- . Record all kinds of business expenses incurred during the year. The accounting principle underlying this proposition is that the business unit should be treated as a separate entity from the entrepreneur. Therefore, it is permissible for you and any member of your family who devotes time in running the business to collect salaries as regular employees. The entrepreneur can also charge rent if the business is located at his residence.
 - . Be sure to keep a correct recording and costing of inventories. The inventory of merchandise at the end of the accounting period affects the net income subject to tax and an overstatement of inventories will overstate net income and vice-versa. Bad debts and depreciation are also deducted from gross income.
- c. For better management

Items on the income tax returns, when written on a chart, can be a measure of determining yearly progress or decline.

For small entrepreneurs, the usefulness of understanding records and documents cannot be overemphasized. Unfortunately, the average small businessman has a narrow and short-run view of his business. And this cockeyed perspective has kept him from trying to understand his financial records and documents, continuously alienating him from the real performance of his business. For example, just to save on taxes, he will fully relegate the functions of preparing the financial statements to a part-time accountant. The accountant generates a statement which shows losses rather than gains (what really happened), thus saving the business some cash in the short run. When this same businessman will attempt to borrow long-term funds for expansion purposes, he may not be able to explain why he is consistently losing and how he manages to survive at the same time. Furthermore, if he is operating in a very competitive market, he may not be able to pull the right cost items down so as to maintain his profit margins.

6. Proper use of good records helps the small entrepreneurs in the decision-making process.

As earlier mentioned, financial statements reflect the overall performance of the firm during the previous years. It is these basic instruments which will permit the management-conscious small entrepreneurs to evaluate managerial effectiveness.

Comparison of figures on net sales and expenses like advertising, travelling, bad debts, salaries and wages and rental for the last five years will indicate any particular cost which is out of line or which shows undue variations from year to year.

The role of the accountant is to provide and interpret financial information to you who is the entrepreneur and decision-maker. Thus, for example, in acquiring fixed assets, the accountant's report should give a definite answer as to whether the proposed investment is viable or not.

Reports should be user-oriented, that is, governed by the needs of the entrepreneur rather than those of the accountants. They should be clear, concise and relevant and should identify important problem areas and highlight the more important information.

WHAT RECORDS TO KEEP

As previously mentioned, financial information is necessary to make a sound and effective decision. The required information must be available at the right time and produced at the least cost possible. A set of books of accounts are usually maintained where day to day financial transactions are entered. Financial reports are then based on these records.

Before any attempt is made at designing a set of bookkeeping records, the entrepreneur must discuss the information needs with his bookkeeper or accountant. If the primary intentions are to measure profit or loss for the period and the valuation of assets, liabilities and ownership at the end of the period, the following sets of books may be necessary:

1. *Cash receipts and disbursements book* - Day to day transactions involving cash outflow and inflow are recorded in this book. Important information furnished by this record include the balance of cash on hand and in bank, total collections on account sales or cash sales, amount of cash purchases, amount of daily expenses and other non-recurring cash outflow and inflows.
2. *Sales record* - All transactions pertaining to sales whether in cash or account are contained in this record. A daily check on this record will inform the entrepreneur as to the amount of sales made, thus indicating the trend of overall business performance.
3. *Purchase book* - Payment and acquisition of raw materials are recorded in this book of account on a daily basis.
4. *General ledger* - This book is used by the bookkeeper to summarize the financial transactions entered in the preceding books of accounts. Financial statements (the profit and loss statement and the balance sheet) are derived from this record. Instead of going through the different books of accounts, the entrepreneur could look into this record for the balances of income, expenses, assets, liabilities and the ownership.
5. *General journal* - In addition to the first three books of accounts, some bookkeepers maintain a general journal for transactions which are not encountered daily such as sale of assets, adjusting entries (to correct erroneous ones or to update accounts), closing entries (income and expenses are measured at the close of the fiscal or calendar year), and balance transferred to the capital account.

To support recorded transactions in these books, the entrepreneur must also maintain a checking account or any kind of bank account to determine the deposits and withdrawals for the period, vouchers to support payment of goods or services, payrolls to support payment of labour and wages, cash receipts and provisional receipts to support collection on sales and other cash receipts, delivery and purchase orders.

Finally, to set this recording system, the entrepreneur is advised to see an accountant or hire a bookkeeper. The rewards from having a good set of records will more than compensate for the investments made.

FINANCIAL STATEMENTS

The financial statements are the means of conveying to you, your managers, if any, and interested outsiders a concise picture of the profitability and financial condition of your business. Since these statements are, in a sense, the end product of the accounting process, the businessman must understand the content and meaning of financial statements in order to appreciate the purpose of the earlier steps in recording and classifying the business transactions.

A balance sheet and its components

A balance sheet is a formal statement of financial position of the business that shows the assets, liabilities, and owner's equity in a classified manner and at a specific date.

The balance sheet consists of two main sections, the "Assets" section and the "Liabilities and Owner's Equity" section which together represent the claims against the assets as shown in Exhibit 13.

The balance sheet has the following components:

1. Assets

As you know, assets are things to value owned by the business and are normally classified as: current, fixed and other assets.

Current assets consist of cash and other assets that, in the normal course of operations, are expected to be converted into cash or consumed during the normal operating cycle of the business. The normal operating cycle is generally one year. Examples of current assets are cash, marketable securities, stocks of raw materials and prepaid expenses.

Fixed assets are those acquired for long-term use and for physical use in the business. They appear in the balance sheet at cost minus depreciation. Fixed assets are treated as long-term costs, and the cost allocated by depreciation over the working life of the fixed assets. Land, building, plant, machinery, equipment, furniture and fixtures acquired for use are treated as fixed assets.

Other assets include patents, goodwill, etc., which do not come within the above definitions. Goodwill is a hidden asset of the business because it represents the value and reputation that the business has gained through the years of its operation. Patents are legal rights to an invention. They are amortized over their working life.

Exhibit 13

Balance Sheet
As of December 31, 19 _____

ASSETS

Current assets

Cash
Accounts receivable
Inventory
Prepaid expenses

Fixed assets

Machinery & equipment

Other assets

Goodwill

LIABILITIES & OWNER'S EQUITY

Current liabilities

Accounts payable
Accrued liabilities

Long term liabilities

Mortgage bonds payable

Owner's equity

Capital
Accumulated profits

2. Liabilities

Liabilities are money owed for goods to suppliers, for expenses to creditors and for loans are called liabilities. In short, liabilities are claims by creditors against the assets of the business. They are classified into current and long-term.

Current liabilities are obligations which are reasonably expected to become due within the normal operating cycle of the business. Accounts payable and accrued liabilities are classified as current liabilities.

Accounts payable is the total amount owed to trade creditors for merchandise, service or supplies.

Accrued liability is a developing but not yet enforceable claim that is accumulating with the receipt of a service. It arises from the purchase of services which have been only partly performed at the time of accounting and hence are not yet billed or paid for.

3. Owner's equity

This refers to the interest of the entrepreneur in the assets of a business. The amount is changed every year as you put in additional investments, as you make withdrawals from the business, and by the addition of the net profit for the year.

Profit and loss statement

The profit and loss statement is a report that summarizes the revenue items, expense items and the difference between them, called net profit, for the accounting period. At the beginning and end of each accounting period, a balance sheet is normally prepared to show the financial picture of the business at each date. The changes in these two financial pictures are explained in the profit and loss statement.

Unlike the balance sheet, no specific format is prescribed for a profit and loss statement.

A condensed form however is illustrated in Exhibit 14.

The following are the items in the profit and loss statement.

1. Net sales

The item "sales" include all sales of merchandise or services. Net sales is computed by subtracting sales discounts and sales returns and allowances from gross sales.

2. Cost of sales

The term "cost of sales" is the total price paid for the products sold during the accounting period plus in-transportation costs. Most small retail and wholesale businesses compute cost of goods sold (or cost of sales) by adding value of the goods purchased during the accounting period to the beginning inventory, and then subtracting the inventory on hand at the end of the accounting period.

Exhibit 14

Profit and Loss Statement
For the Year Ended December 31, 19 ____

Net sales	\$ xxx
Less cost of sales	<u>xxx</u>
Gross profit	\$ xxx
Less operating expenses	<u>xxx</u>
Operating profit	\$ xxx
Less adm. & overhead expenses	<u>xxx</u>
Net profit before tax	\$ xxx
Less provision for income tax	<u>xxx</u>
Net profit	<u>\$ xxx</u>

3. Gross profit

This refers to the difference between sales and cost of goods sold. Gross profit does not take into account the overhead expenses of the business.

4. Selling expense

These are expenses incurred directly or indirectly in making sales. They include salaries of sales force, commissions, advertising expense and freight if goods are sold FOB-destination, etc. Shares of light, power, supplies and other expenses that contribute to the company's sales activities may also be charged to selling expense. In most small enterprises, however, such mixed expenses are usually charged to general expenses.

5. General and administrative expenses

Salaries of office personnel, supplies and other operating costs necessary to the overall administration of the business are included in this group of expenses.

6. Net profit

The net profit of the business is the final profit after matching and deducting all relevant costs and expenses for the accounting period. Net profit may be computed as follows:

- a. Gross profit less operating expenses (selling, administrative and general) equals the *operating profit* which is the profit from the normal business operations of the period.
- b. Operating profit less non-operating expenses such as interest, loss on sale of fixed assets, etc. equals *profit before taxes*.
- c. Profits before taxes, less provision for future income tax equals *net profit*.

As a small manufacturer who converts raw materials into finished goods, your method of accounting for cost of goods sold differs from that used by wholesalers and retailers. In manufacturing, raw materials inventories, goods in process inventories, direct labour and factory overhead, in addition to finished goods inventories are involved in the computation of the cost of goods sold.

To avoid long and complicated profit and loss statements, it is suggested that you report the cost of goods manufactured separately. Exhibits 15 and 16 illustrate a simplified Profit and Loss Statement and Statement of Cost of Goods Manufactured, respectively.

Statement of accumulated profit

The balance of accumulated profit earned but left in the business and not distributed to shareholders increases the owner's equity. Conversely, losses reduce the amount of accumulated profit. If losses and dividends exceed the profits, the balance of accumulated profit becomes a deficit which reduces owner's equity.

Exhibit 15

Profit and Loss Statement
For the Year Ended December 31, 19 ____

Sales		\$ xxx
Cost of goods sold		
Finished goods, beginning of year	\$ xxx	
Add cost of goods manufactured	xxx	
Total cost of goods available for sale	xxx	
Less finished goods, end of year	<u>xxx</u>	<u>xxx</u>
Gross profit from sales		\$ xxx
Selling and administrative expenses:		
Office supplies	xxx	
Salaries and wages	xxx	
Postage, telephone and telegraph	xxx	
Depreciation	xxx	
Rent	xxx	
Repairs and maintenance	xxx	
Light and water	xxx	
Social security	xxx	
Taxes and licences	xxx	
Provision for doubtful accounts	xxx	
Miscellaneous	<u>xxx</u>	<u>xxx</u>
Net income from operations		\$ xxx
Other expenses		
Interest expense		<u>xxx</u>
Net income		<u>\$ xxx</u>

Exhibit 16

Statement of Cost of Goods Manufactured
For the Year Ended December 31, 19 _____

Raw materials used		
Raw materials, beginning of year		\$ xxx
Add purchases		xxx
Total available for use		<u>\$ xxx</u>
Less raw materials, end of year		xxx
Raw materials used		<u>\$ xxx</u>
Direct labour		xxx
Manufacturing overhead		
Indirect materials	\$ xxx	
Indirect labour	xxx	
Depreciation	xxx	
Rent	xxx	
Insurance	xxx	
Repairs and maintenance	xxx	
Electricity, light and water	xxx	
Fuel and oil	xxx	
Social security	xxx	
Miscellaneous	<u>xxx</u>	<u>xxx</u>
Total manufacturing cost		\$ xxx
Work-in-process, beginning of year		xxx
Goods-in-process, end of year		<u>(xxx)</u>
Cost of goods manufactured		<u>\$ xxx</u>

PITFALLS TO AVOID IN FINANCIAL MANAGEMENT

As you have seen, financial management is a rather complex and crucial area in small enterprise management, involving as it does the understanding of various concepts, the use of diverse tools and the maintenance of a number of records. As such, financial management has its pitfalls which you will want to watch-out against.

Remember that you cannot absorb costly financial errors like large enterprises can. Therefore, you should know how to deal with the most common pitfalls.

There are 14 financial pitfalls common to small companies,^{2/} which have resulted in business failures.

1. *Insufficient capital at the start of the business.* Initial capital, some which are needed for buying fixed assets and paying for supplies, salaries and merchandise, can be underestimated. In estimating capital needs, the following are often overlooked:

- a. Capital to cover the time between expenditure of money and collection of revenue.
- b. Money to cover the period for developing customers.
- c. Time to get the organization and its employees working.
- d. Time to implement ideas and produce quality products.
- e. Cash to buy supplies and equipment until credit is established.
- f. Fire, theft and other catastrophes that can affect the financial position of the business.

In estimating your capital needs, (1) Base assumptions on facts, (2) Make room for miscalculations and unforeseen circumstances, and (3) Be conservative in estimating when and how much profit is expected.

2. *Inadequate capital for growth and expansion.* All too often, a small enterprise fails because it expands too fast for its capital base. When the company contracts, it ends up in financial trouble. Growth in sales increases the need for financing. A manager who contemplates an expansion should first determine the amount needed and consider various alternatives. He may decide that it is better to grow at a slower pace by concentrating on major accounts and holding off expansion until enough funds are accumulated.

3. *Dependence on debt.* A young lady once divulged a "most clever plan" for opening up her own shop by "borrowing money from the bank." Asked if she has savings to invest in the effort, she replied, "I don't want to risk my own money. I would rather use the bank's money." Although few small business owners are that naive, the anecdote underscore the misconceptions about debt.

^{2/}Abdelsamad, et. al., 14 *Financial Pitfalls for Small Business.*

There are two important things to remember about small industry financing. First, the high risk of failure makes lenders very careful about lending money to small enterprises. Second, interest on loans is determined by the risk involved. It is a fixed charge that must be paid on time and, when the principal comes due, arrangements have to be made for paying the debt without difficulty.

4. *Inadequate financial planning.* Planning is crucial. But many small entrepreneurs do not attend to their financial future until a severe problem develops. Planning is important in deciding what the objectives are and how they can be achieved. A financial plan for raising the necessary funds should be developed in detail for one year and for another four years.

5. *Inadequate cash management.* A key planning tool is the cash budget, which may be considered as a list of cash sources and disbursement items on a month-to-month basis. It estimates cash shortages or surpluses ahead, thus allowing the entrepreneur time to raise capital or find ways of investing excess funds. It is helpful in bank dealings, because it indicates the company's financial needs and ability to repay loans as they fall due. It also encourages "active budgeting" by providing a tool to determine any need to change the timing of cash receipts and disbursements. For example, a contemplated capital expenditure could be delayed until excess cash is available.

6. *Emphasizing volume at the expense of ROI.* More volume does not automatically mean more profit. The name of the game is return on investment (ROI), which is margin times turnover. Margin is net profit per dollar of sales, and turnover is sales divided by assets. Sales at a price that does not cover all expenses and leave something for profit may be worse than less sales at adequate prices.

7. *Overlooking the risk-return tradeoff.* In any business, it is almost impossible to avoid risk and get a high return at the same time. Usually, the more risk the more return you get and vice-versa. Good business practices improve the return your business earns at a given level of risk.

8. *Taking too much money out of the business.* A small entrepreneur usually starts his venture with his own savings and those of his family and friends. The capital market is usually inaccessible to him. He has to sacrifice for a few years and take as little as possible out of his business if he wants to expand. Profit should be used as a cushion to improve his business or help survive a downturn in the economy.

9. *Confusing cash with net income.* "Where are all the profits we've made" and "How come we're short of cash?" are typical questions of small entrepreneurs. But profit seldom stays in cash form. Cash is used to buy inventory and to invest in fixed assets. Cash flow should be carefully watched to make sure funds are available to pay maturing debts and other obligations.

10. *Inadequate bank relations.* Some small enterprises may not keep their bank informed of financial conditions and new developments. Bankers usually look favourably on entrepreneurs who inform them about the financial status of their firm.

It pays to shop around for credit, too. While one banker may not grant a loan because of other opportunities, another may welcome the chance to develop a new customer.

Waiting till the last minute to ask for a loan extension may force a bank to grant it, but it also shows financial weakness as well as increases the risk of being turned down.

11. *Liberality in granting credit.* Some entrepreneurs believe profit can be made by selling to any customer. This is true only if the customer pays in cash or pays debts as they feel due. But most people prefer to be on credit, and many do not pay their debts on time.

12. *Inadequate billing system.* Billings for services or products are usually slow in small enterprises. Often, the individual in charge of billing is also in charge of other activities. It is advisable to hire a part-time employee to work on the billings on a regular basis.

13. *Inadequate handling of payables.* Regardless of size, every cash discount taken advantage of can amount to important savings. For example a 2% discount for payment within ten days, with full payment in 30 days, is in effect a 2% interest charge on using the money for an additional 20 days. This is effective interest rate of 36% per annum. Also, paying bills promptly indicates financial strength and improves the firm's credit rating.

14. *Inadequate accounting system.* An adequate accounting system is vital to any company, whatever its size. The system need not be complicated. It has only to provide a manager with enough information in order to know where he stands.

The system should provide at least:

- a. A daily updated picture of the cash position.
- b. An accurate and up-to-date accounts receivable ledger.
- c. An up-to-date accounts payable ledger.
- d. An adequate system of payables that identifies bills to be paid and assures payment on time and use of cash discounts.
- e. For manufacturers, an adequate system for getting cost data on units produced.
- f. Periodic accounting reports to show how the company has performed (about four times a year).

You should be very careful in selecting an accounting firm. While a certified public accountant can help in setting up a system, it is cheaper to hire an accounting student or retired bookkeeper to do the records keeping on a part-time basis and let the accountant audit the books periodically and help with tax preparation.

Indeed, good financial management enhances the chances for success in business. Some of the mistakes do not require complicated solutions, only some familiarity with basic financial techniques.

CHAPTER VIII

HOW TO ANALYZE YOUR SMALL ENTERPRISE

The modern and far-sighted small entrepreneur periodically analyzes his business to ensure that it is in good health. Analysis is essential if the business is to survive and grow. There are many methods of analysis. This chapter discusses four of these methods, namely: financial ratio analysis; key-problems approach; break-even analysis; and questionnaire guide.

Financial ratio analysis, which studies the financial soundness of the firm, are of four principal types: liquidity, leverage, activity and profitability ratios. The key-problems approach is based on major problems commonly encountered by small firms. Break-even analysis is useful because that point where profitability -- or loss -- begins can influence the way the firm is managed. Finally, the entrepreneur who wants to probe into the condition of his firm, may answer a simple questionnaire-guide which covers the operational phases of a small business.

In starting and managing your small enterprise, there will be a recurring need to analyze your firm: how it has performed, what problems beset it or are likely to beset it; and what to do about existing or anticipated problems and opportunities. The mark of an effective entrepreneur is his ability to prevent a problem from turning into a crisis and to transform an opportunity into profits. And this ability is enhanced by periodically analyzing the performance and situation of the business.

There are many methods of analyzing a business. This chapter will discuss four of the more common and simple methods of analyzing a business, namely: *financial ratio analysis; key problems approach; break-even analysis; and questionnaire guide.*

FINANCIAL RATIO ANALYSIS

As a small entrepreneur, you would want answers to the following questions:

- . Can the firm meet its current obligations?
- . Is the firm heavily indebted?
- . Does it have too much investment on accounts receivable and/or inventory?
- . Does it earn a fair return on its investments?
- . How much is the worth of its assets?

The answers to these questions can be derived from an analysis of the financial statements of the firm. Remember that financial analysis has its advantages as well as limitations. One advantage of financial analysis is that it can focus clearly on vital ratios as profits in terms of a percentage of sales or profits in terms of percentage of investment. Another advantage is that it is easy to apply. This assumes, of course, that relevant accounting data are available. A third advantage is that financial analysis provides information, like ratios measuring liquidity, profitability and solvency, in which a financing institution is interested.

Financial analysis, however, has three disadvantages. First, the feedback is slow. A firm's mistakes and problems can be detected by other means long before they are reflected in the financial statements. Second, financial ratios often reveal symptoms rather than causes. A difficult financial condition is often the result of management mistakes like misuse of funds or uncompetitive pricing. A third drawback is that financial analysis tends to focus on past events rather than on problems that lie ahead. Projections of financial trends can indicate future problems but the projections are based on past conditions which may radically change in the future.

It is often helpful to relate financial data to each other in order to obtain ratios, which disclose more useful information that can be derived from the raw figures themselves. For example, to compare the amount of current assets on the balance sheet to the amount of current liabilities is more meaningful than simply to look at each amount without reference to the other. Current assets are frequently considered the major reservoir of funds for meeting current obligations. To illustrate, examples of financial data from a balance sheet and an income statement are shown on Exhibits 1 and 2.

MAJOR TYPES OF FINANCIAL RATIOS

There are four major types of financial ratios: *liquidity, leverage, activity* and *profitability* ratios.

Liquidity ratios

Liquidity ratios are those ratios which measure the firm's ability to meet its maturing short-term obligations. Generally, the first concern in financial analysis is liquidity. Although a full liquidity analysis requires the use of cash budgets, ratio and analysis provide a quick measure of liquidity by relating the amount of cash and other assets to the current liabilities.

There are two commonly used liquidity ratios.

1. Current ratio - The current ratio is computed by dividing current assets by current liabilities. Current assets include cash, marketable securities, accounts receivable and inventories; current liabilities consist of accounts payable, short-term notes payable, accrued income taxes and other accrued expenses. The current ratio is one of the most commonly used indices of financial strength, since it indicates the extent to which the claims of short-term creditors are covered by assets that are expected to be converted into cash in a period corresponding to the maturity of the claims.

Exhibit 1

ABC COMPANY
Balance Sheet
As of December 31, 1980

ASSETS		LIABILITIES AND EQUITY	
Current Assets:		Current Liabilities:	
Cash	\$ 40,000	Accounts payable	\$ 48,000
Marketable securities	120,000	Notes payable, 10%	80,000
Accounts receivables	160,000	Accrued expenses	8,000
Inventories	<u>240,000</u>	Provisions for income tax	<u>104,000</u>
Total current assets	\$ 560,000	Total current liabilities	\$ 240,000
Fixed Assets:		Long Term Liabilities:	
Plant and Equipment	\$1,440,000	First Mortgage, bonds, 8%	\$400,000
Less Depreciation	<u>400,000</u>	Debentures, 10%	<u>160,000</u>
Net Plant and Equipment	<u>1,040,000</u>	Total	560,000
TOTAL ASSETS	\$ <u>1,600,000</u>	Equity:	
		Common stock	
		(48,000 shares)	\$ 480,000
		Accumulated profit	<u>320,000</u>
		Total equity	<u>800,000</u>
		Total Liabilities and Equity	<u>1,600,000</u>

Exhibit 2

ABC COMPANY
Profit and Loss Statement
For the Year Ended December 31, 1980

Net Sales		\$ 2,400,000
Cost of goods sold		<u>2,044,000</u>
Gross profit		\$ 356,000
Less: operating expenses		
Selling	\$ 17,600	
General and Administrative	32,000	
Lease payment on office building	<u>22,400</u>	<u>72,000</u>
Gross operating profit		284,000
Depreciation		<u>80,000</u>
Net operating profit		204,000
Add: Other income		
Royalties		<u>12,000</u>
Gross income before interest and tax		216,000
Less: Other expenses		
Interest on notes payable	\$ 8,000	
Interest on first mortgage	32,000	
Interest on debentures	<u>16,000</u>	<u>56,000</u>
Net profit before income tax		160,000
Income tax * (at 40%)		<u>64,000</u>
Net profit after income tax		\$ <u><u>96,000</u></u>

* Assumption: Tax rate is 40%

The calculation of the current ratio for ABC Company for the year ended 1980 is shown below:

$$\text{Current Ratio} = \frac{\text{Current assets}}{\text{Current liabilities}} = \frac{\$560,000}{\$240,000} = 2.3 \text{ times}$$

With a current ratio of 2.3, ABC Company could liquidate current assets at only 43% of book value and still pay off current obligations in full.

2. Quick ratio or acid test - This ratio is calculated by dividing current assets less inventories by current liabilities. Inventories are the least liquid of a firm's current assets and the assets on which losses are most likely to occur in the event of liquidation. It is a severe test of liquidity since it concentrates on strictly liquid assets.

$$\text{Quick ratio} = \frac{\text{Current Assets} - \text{Inventory}}{\text{Current Liabilities}} = \frac{\$320,000}{\$240,000} = 1.3 \text{ times}$$

Remember that if the marketable securities can be sold at par and the accounts receivables can be collected, the company can settle its obligations without selling inventory.

Leverage Ratios

Leverage ratios, which measure the extent to which the firm has been financed by debt is the second fundamental type of ratios. This ratio has a number of implications. First, creditors look at the equity to provide margin of safety. If owners have provided only a small proportion of the total financing, the risks of the enterprise are borne mainly by the creditors. Second, by raising funds through debt, owners gain the benefits of controlling the firm with a limited investment. Third, the firm may earn more on borrowed funds than it pays in interest. For example, if assets earn 14% and debt costs only 12%, there is a 2% differential accruing to the owner. In this case the leverage is favourable. However, if the return on assets goes down leverage is unfavourable because the cost of debt is more than what assets earn.

Firms with low leverage ratios have less risk of loss when the economy is in a downturn and have lower expected returns when the economy booms. Conversely, firms with high leverage ratios may have high risk of losses and chance of earning big profits. Investors are reluctant to take risks even if the prospects high returns are desirable. Decisions about the use of leverage, then, must balance higher expected returns against increased risk. The three leverage ratios are presented below:

1. Total debt to total assets - The ratio of total debt to total assets is called the *debt ratio*, which measures the percentage of total funds provided by creditors. Debt includes current and long-term liabilities. Creditors prefer moderate debt ratios, since the lower the ratio, the greater the protection against creditors' losses in case of liquidation. In contrast, the owners may choose high leverage either to magnify earnings or to maintain some degree of control of the firm. If the business venture is unsuccessful, only a moderate loss is incurred by the owners because their investment is small.

$$\text{Debt ratio} = \frac{\text{total debt}}{\text{total assets}} = \$ \frac{800,000}{1,600,000} = 50\%$$

ABC Company's debt ratio is 50%; this means that creditors have supplied half of the firm's total financing. The company may find it difficult to borrow additional funds without first raising its equity. Creditors would be reluctant to lend money to the firm.

2. Times interest earned - This ratio is determined by dividing earnings before interest and taxes by the interest charges. The time in-interest-earned ratio measures the extent to which earnings can fall without resulting in financial embarrassment to the firm because of inability to pay annual interest costs. Failure to meet this obligation can lead to legal action by the creditors. Since income taxes are computed after interest expense is deducted, the ability to pay current interest is not affected by income taxes.

$$\begin{aligned} \text{Times interest earned} &= \frac{\text{profit before taxes} + \text{interest charges}}{\text{interest charges}} \\ &= \frac{\$216,000}{\$56,000} = 3.8 \text{ times} \end{aligned}$$

ABC Company's interest charges consist of three payments totalling \$56,000 (See Exhibit 2). The firm's gross income is \$216,000, so that the interest is covered 3.8 times. This ratio reinforces the conclusion based on the debt ratio that the company is likely to face some difficulties if it tries to borrow additional funds.

3. Fixed charge coverage - This ratio is similar to the times-interest-earned ratio. But this should be preferred to the other when the company opts for a leasing scheme rather than an outright purchase. *Fixed charges* are interests plus annual long-term lease obligations and the fixed charge coverage ratio is computed as follows:

$$\begin{aligned} \text{Fixed charge coverage} &= \frac{\text{before profit taxes} + \text{interest charges} + \text{lease obligations}}{\text{interest charges} + \text{lease obligations}} * \\ &= \frac{\$160,000 + \$56,000 + 22,400}{\$56,000 + 22,400} \\ &= \frac{\$238,400}{\$78,400} \\ &= 3.04 \text{ times} \end{aligned}$$

*Assuming that lease obligations amounted to \$22,400.

Again, the ratio of 3.04 indicates that the firm is weak and that the company is likely to encounter some difficulties in borrowing additional funds.

Activity ratios

The ratios which measure how effectively the firm is using its resources are called *activity ratios*. These ratios compare the level of sales and the investment in various asset accounts. There should be a *proper* balance between sales and the various asset accounts such as accounts receivable inventories, fixed assets and other assets.

1. Inventory turnover- The inventory turnover is defined as sales divided by inventories.

$$\text{Inventory turnover} = \frac{\text{sales}}{\text{inventory}} = \frac{\$2,400,000}{240,000} = 10 \text{ times}$$

The turnover of 10 times indicates that the company does not hold excessive stocks on hand; these excess stocks are unproductive and represent an investment with a zero return. The high inventory turnover also reinforces your faith as analyst in the current ratios.

In computing and analyzing the inventory turnover, two problems may arise. First, sales are valued at market prices while inventories are generally carried at cost. It is, therefore, more appropriate to use cost of goods sold in place of sales as the numerator of the formula. The second problem lies in the fact that sales occur over the entire year, whereas the inventory figure is accurate only at one point in time. In this case, it is better to use an average inventory which is computed by adding the beginning and ending inventories divided by 2.

2. Average collection period. The average collection period, which is a measure of the accounts receivable turnover, is computed in two steps:

- a. Annual sales are divided by 360 to get the average daily sales; Receivables are divided by sales per day to get the average collection period.
- b. This is called the average collection period because it represents the average length of time that the firm must wait after making a sale before it can collect cash.

$$\text{Sales per day} = \frac{\$2,400,000}{360} = \$6,666$$

$$\begin{aligned} \text{Average collection period} &= \frac{\text{receivables}}{\text{sales per day}} \\ &= \frac{\$160,000}{\$6,666} \\ &= 24 \text{ days} \end{aligned}$$

This ratio can be evaluated by comparing it with the terms on which the firm sells its goods. Assuming that ABC Company's sales terms is 20 days, the 24-day collection period indicate that customers, in general, don't pay their bills on time.

3. Fixed asset turnover - The ratio of sales to fixed assets measures the turnover of plant and equipment.

$$\begin{aligned}\text{Fixed asset turnover} &= \frac{\text{sales}}{\text{net fixed assets}} \\ &= \frac{\$2,400,000}{1,040,000} = 2.3 \text{ times}\end{aligned}$$

The ratio of 2.3 times indicates that the company is not using its fixed assets to its full capacity.

4. Total assets turnover - This is the final activity ratio which measures the turnover of all the firm's assets. It calculated by dividing sales by total assets.

$$\begin{aligned}\text{Total assets turnover} &= \frac{\text{sales}}{\text{total assets}} \\ &= \frac{\$2,400,000}{\$1,600,000} = 1.5 \text{ times}\end{aligned}$$

The firm is not generating a sufficient volume of sales for the size of its asset investment. Sales should be increased, or utilized assets should be disposed of.

Profitability ratios

Profitability is the net result of the company's objectives and policies. The profitability ratios measure the entrepreneur's overall effectiveness as shown by the returns generated on sales and investments.

1. Profit margin on sales - This is determined by dividing net profit after taxes by sales.

$$\begin{aligned}\text{Profit margin} &= \frac{\text{net profit after taxes}}{\text{sales}} \\ &= \frac{\$ 96,000}{\$2,400,000} = 4\%\end{aligned}$$

The profit margin indicates that the firm's sales prices are relatively low or that its costs are high or both.

2. Return on total assets - The ratio of net profit to total assets measures the returns on total investment in the firm, otherwise known as the ROI.

$$\begin{aligned} \text{Return on total assets} &= \frac{\text{net profit after taxes}}{\text{total assets}} \\ &= \frac{\$ 96,000}{\$1,600,000} = 6\% \end{aligned}$$

This low rate results from the low profit margin on sales and from the low turnover of total assets.

3. Return on equity - The ratio of net profit after taxes to equity measures the rate of return on the owner's investment.

$$\begin{aligned} \text{Return on equity} &= \frac{\text{net profit after taxes}}{\text{equity}} \\ &= \frac{\$ 96,000}{800,000} = 12\% \end{aligned}$$

Only half of ABC Company's assets is financed with equity, the other half is financed with debt. This means that the entire per cent return on assets goes to the common stockholders.

USEFUL TIPS FOR FINANCIAL ANALYSIS

Finally, here are several pointers to keep in mind when making a financial analysis:

1. Select data which are relevant to the analysis. The purpose of the evaluation gives clues to the nature of the ratios which will be helpful.
2. Extend your analysis over several past periods, as well as the current period, to be able to observe any unusual trends.
3. Concentrate on all variations from any applicable standard, such as industry data, especially if there is a consistent trend over a period of time, and try to analyze their causes by cross-checking with the ratios and raw data.

KEY PROBLEMS APPROACH

The key-problems approach to analyzing your business is problem-oriented. Based on research studies and consultancy practice, the major problems commonly encountered by small firms will be described with suggestions on how to avoid or solve them. The problems will be classified according to the various functional areas of business management.

MANAGEMENT ASPECTS

Lack of balanced managerial skills

This is the principal reason and the root cause for most small business failures. This is not surprising because the small entrepreneur, who can ill-afford the services of specialists to assist him, assumes all managerial functions which require a multiple of skills. The owner-manager, however, lacks the necessary skills to perform or supervise the tasks of marketing, production, accounting and personnel management. For example, a super salesman starting his own business may not have the ability to plan and coordinate production to meet commitments and customers' expectations. Or an accountant may not have the ability to understand his market or the personality to promote his products successfully. The lack of managerial skills may not be too much of a problem for the small firm with less than five employees or for the self-employed person. But the problem becomes more acute as the firm grows.

The problem can be avoided or minimized in the following ways:

1. You can postpone your decision to start your business until such time that you have acquired sufficient experience on the general management level and in the particular business you intend to enter.
2. The skills that you lack can be provided by qualified employees, business partners or consultants. Everyone has his limitations and that includes you. But if you are smart, you can bring into your firm the talents of many people. You need not fight the battle alone.
3. You can acquire the necessary skills thru training offered by universities and other training institutions or thru on-the-job training in a small business.

Failure to delegate

Many firms remain small because their growth is limited to what the owner can do himself. At the start, when the business is very small, it is appropriate that you take charge of all the operations. The need to delegate occurs when the firm becomes too large for one man to run but too small to afford a full team of managers. The failure to delegate becomes apparent when you feel bogged down in details; when you start making costly mistakes you normally would not commit if you were not too busy. This inability to delegate is difficult to overcome because you naturally feel quite attached to your business. It is, so to speak, your "baby" and you may not like to share control over it with others. But if you want your business to survive, you simply must change your management style when the situation requires it.

Why should you delegate? Delegating multiplies your power -- you can do more things. It is a form of insurance -- business can run smoothly even when you have to be absent. Moreover, some employees become more motivated when they are given more responsibility.

One way of avoiding this pitfall is to develop a strong second man, a top assistant. These guidelines can help you develop a good second man:

1. Recruit one who has the qualifications and the potential to be your top assistant. You may need one who is strong where you are weak. Since hiring a top assistant is a key decision, consulting other people can help you make a good choice.
2. Define clearly what your top assistant can do, share relevant information and skills, and get the other employees' cooperation.
3. Give a trial period during which you delegate responsibility gradually and the top assistant can prove his ability to help you and the firm.
4. Reward your top assistant adequately, perhaps, even to the extent of sharing the profits or the business with him.



Taking too much out of the business

You are earning a living by managing your own business but resist the temptation to withdraw too much from the business for personal expenses. Exercise fiscal discipline especially in the first years and in difficult times.

Few small firms can recover from a major setback. Your firm will have a better chance of weathering a crisis if you conserve your capital "for a rainy day."

Too much success

Yes, too much success can create trouble for you. The sales of your products have exceeded your expectations and you decide to expand or diversify into other businesses. You later find out that you cannot duplicate your earlier successes. Before deciding whether or not to expand your business, first analyze the reasons why you were successful in the past. You may have succeeded because you or your men had the special knowledge or skills for your particular business. But you may not have the competence to expand into a new business or run a bigger-scale operation. Or you may have succeeded not because of your expertise but simply because you were lucky, the timing was right or there was no competition. Simply stated, grow according to your ability, your resources and the external conditions affecting your firm.

Too much success, instead of generating overconfidence, may encourage complacency. After years of struggle your business becomes established and you may tend to relax. You continue to depend on the same management skills, the same products and processes for future growth and profits. Before long you become uncompetitive and other firms encroach on your market share. If you want to stay in business, you must realize that market conditions change very fast -- new firms are coming in and new products, materials, processes and machineries are being developed.

From biology, we learn that the organism that can adjust to changes in its environment is the organism that will survive and grow. This also holds true for business organizations.

MARKET ASPECTS

Lack of customer-orientation

Although you are managing your own business, you still have a boss, and that is your customer. Your success as a small enterprise manager depends greatly on how well you can satisfy your customer's needs. Focus your attention on what your customers need, not on what products or services you can make or provide.

Unintegrated marketing activity

Marketing, which was underscored earlier (see Chapter V), is not an isolated function. Any activity or decision regarding marketing is interrelated with other areas and functions within and outside the enterprise.

Dependence on a single market

Not a few projects have failed because of their excessive dependence on a single market. Some examples of these are companies who used to apply logging spare parts, or those who cater to the sugar industry. Still, we find companies which have folded up because their foreign buyers have suddenly rescinded their marketing agreements, or have turned to other suppliers.

It would be to your advantage to avoid "putting all your eggs in one basket". Rather, you should consider diversification and variety in your market. Flexibility in business operations must also be a goal, if only to develop an ability to adjust to the ever-changing environment. Where an enterprise will have to be

promoted based on the demands of a single major industry, care must be exercised in assessing the prospects of such industry to be serviced, considering especially that your success will simply ride on the success of the industry being serviced. By the same token, a careful investigation of an *exclusive buyer* is a must before an entrepreneur decides to commit his resources to a given undertaking.

Competition

A number of small firms have also failed because of the entry of competitors into a market which was initially considered "captive". It must be recognized that competition is encouraged inasmuch as it helps bring to the ultimate consumers better goods and services at more favourable terms/prices. Part of the viability of a business rests with its competitiveness and ability to sell its products in a competitive environment.

Thus, in defining your product, it is important that you are able to pin down your competitive advantage and know how to capitalize and improve on it. Furthermore, a careful study of prospective competitors and how they will affect the business must be conducted, with the end in view to defining directions that the company must pursue to be competitive.

Lack of familiarity with the market

Many enterprises that have ventured into new products have found themselves having to face the difficulties brought about by an unfamiliar market. Product quality requirements, trade practices and the changing demands of buyers are factors which have to be carefully studied before attempting to plunge into a new undertaking. Familiarity with the abaca market, for example, does not ensure familiarity with the rattan furniture market; neither does familiarity with the rattan furniture market ensure knowledge of the wooden furniture market. It is therefore important to look seriously into the various dimensions of the market (customer preferences, trade practices, sales terms, method of shipment, etc.) before any attempt to produce is made.

TECHNICAL ASPECTS

Poor plant location

In a number of instances, plant location has played a critical role in the viability of new ventures. Locating too close to the labour or raw materials sources could sometimes mean moving too far from the market. And a business that relies too heavily on "walk-in" customers may soon find itself in an uncompetitive position. On the other hand, locating too close to the market may render raw materials too expensive due to freight expenses. You should therefore select your plant location carefully in relation to the critical inputs of your venture, such as labour, raw materials and power, as well as your market. Don't overlook transport facilities, where necessary. Consider zoning regulations, too, where such exist because the existence of such restrictions or laws could affect the smooth operations of your business.

Lack of raw materials

Raw materials shortage refers not only to the total absence of raw materials, but also to the unavailability of raw materials in the right quality and at such effective costs that would render the business viable. Considering that the entire production process takes off from the raw materials stage, you must carefully study the long-term availability of your raw materials requirements. In this age of constantly spiralling costs, it would be prudent to ensure that your company would have sufficient resources to allow for increases in raw materials costs. Corollarily, behaviour of materials prices could be analyzed to assess their long-term implications on the venture's viability.

Problems labelled as "raw materials shortage" may be traced to the entrepreneur's lack of familiarity with procurement practices. This is especially evident in industries where quality materials are not so abundant that suppliers enjoy the advantage of being able to practically dictate the terms of the sale. Procurement of good-quality rattan poles, for example, often require that advance payments be made to the middlemen or the supplier. Without recognizing these realities, it would be very difficult to appreciate the implications of such problems on the company's working capital situation and the project's viability and profitability as a whole.

Inadequate quality control

Quality control is one important aspect that is often overlooked in the production process. It must be noted that the competitive advantage of any product rests primarily on its quality, apart from other secondary factors such as price. This is even more significant for a company which caters to the discriminating export market. It should be noted that foreign buyers have a wide choice of supply sources and could therefore afford to be very selective, discriminating and quality-conscious. It would be best to be constantly aware of the preferences of the buyer and be able to integrate them into the production process.

FINANCIAL AND ACCOUNTING ASPECTS

Inadequate capital

Starting a business involves many risks and hardwork. It is not surprising then that an entrepreneur is often called an optimist. Optimists tend to underestimate the time and money required to start a new business -- the time needed to develop a new product, organize the firm's resources and develop market acceptance. Schedullesslip, expenses exceed expectations and sales stagnate. The starting capital is depleted and operations slow down and perhaps grind to a halt.

Prevention is better than cure and planning can avoid the problem of inadequate capital. Plan so that you can accurately estimate how much starting capital you need for land, buildings, machinery and equipment, materials and working capital, providing for safety margins to absorb cost overruns. It is advisable to have your plan checked or prepared by a knowledgeable person -- an accountant, a consultant or your banker, if you intend to borrow.



Borrowing can solve your financing problems but it can also worsen your financial situation in some cases. For instance, if you are going to borrow at an effective interest rate of 18% a year and your net profit before interest is 15%, you may end up with a loss. If you are going to borrow a substantial amount, be reasonably sure that your business will earn enough profits to cover interest charges and generate enough cash to meet amortization payments and sustain operations. A good project study will show if your plan to borrow is viable.

Poor accounting records

A UP ISSI study reveals that successful small business firms keep more complete accounting records than the unsuccessful small businesses. The connection between managing a successful business and keeping adequate accounting records seems obvious. A manager can seldom make sound decisions without adequate information. Without accounting records you cannot know what is your break-even selling price or sales volume, how much you should price your product, how much profit, if any, you are making, how safe is your cash position. Information may not always be complete but at least your decisions will not be based solely on plain guesswork and "feel."

You should hire a knowledgeable accountant on at least a part-time basis to set up a simple recording system to enable you to monitor sales, costs, gross margin, profit and loss, and cash situation.

Too much capital in fixed assets

One advantage of the small firm is its low overhead. But if you invest too much of your capital on fixed assets -- land, building, machinery -- you are likely to lose this advantage. Moreover, the working capital available is lessened, impairing your flexibility to overcome a crisis or take advantage of an opportunity.

You can avoid investing too much capital in fixed assets by:

1. Leasing, instead of buying land, building, machinery and equipment
2. Buying in installment
3. Purchasing second-hand machinery and equipment if operations and the marketability of your product are not seriously affected
4. Using labour instead of machinery for some operations
5. Subcontracting part or all of the production requirements so that you will not need additional machinery and equipment
6. Acquiring only fixed assets that are adequate to meet the requirements of the business. For instance, do not buy a 1,000 sq. m. lot if a 500 sq.m. lot will do; do not purchase machinery and equipment that can produce 10,000 units a year if your expected sales is only 5,000 units a year
7. Making, instead of buying, equipment, furniture and fixtures.

Poor credit practices

In your desire to generate more sales, you may tend to be too liberal in granting credit. In turn, some of your customers may take you for granted and delay payment. You then find yourself having a hard time paying your own obligations to your employees, suppliers and creditors. The solution is proper credit control although this may be easier said than done. You should prefer cash-paying customers and be more selective in granting credit. Remember that business is business and you should collect even from friends and relatives. Monitor closely your customers whose accounts are due and promptly follow up these accounts especially the big ones. In granting credit, the rule of thumb is to have additional capital equal to 45 days credit sales if you are giving customers 30 days to pay.

Before granting credit, you must be able to answer these two questions positively: Do I have enough capital? Can I collect?

Poor cash management

Related to the last two problems is poor cash management. Any accountant will tell you that your business may show profit on paper but actually has little cash to sustain its operations. You may have attained your sales targets but if most of your sales are on credit, you do not have additional capital and payments are delayed, then you have a cash crisis. Sales may be picking up but you lack cash to purchase additional inventory. You look for additional credit but, as many businessmen have found out, no one is willing to lend you money when you desperately need credit whereas credit was available when you didn't need it. The mark of a good manager is his ability to prevent a problem from becoming a crisis and this requires planning and foresight. The technique to use here is *cash flow analysis* in which you project your cash flow for the coming months -- where the cash will come from, where the cash will be used, how much will be the cash balance and how much additional cash will be needed. If you anticipate a need to conserve cash you may decide to keep inventories to a minimum, seek suppliers who can provide credit, reduce credit sales, seek cash-paying customers, get purchase discount or limit investments in fixed assets. Your cash flow projections will become more accurate as you compare projected and actual cash flow and study the differences. A knowledgeable accountant can prepare a cash flow form suited to your needs.

BREAK-EVEN ANALYSIS

Break-even is that point where there is neither gain nor loss in your firm's operations; where total sales equals total costs. Where profitability (or loss) begins is vital; it should have an important influence on the way in which you manage your enterprise. The planning you do and the decisions you make when the business is operating at a profit are likely to be different from those made when the business is in the red. If you can determine where you break even, you can get reasonably correct answers to such questions as:

- . If I change selling price, what happens to profits?
- . If I reduce costs or expenses, how much more profit will I earn?
- . At a given sales volume, what will the profit be?
- . If I intend to earn a particular amount of profit, how much should I sell to achieve my goal?
- . What will happen to profit if I:
 - hire another employee?
 - use cheaper raw materials?
 - buy a more efficient machine?
 - discharge a key official?
 - grant a general wage increase?

COMPUTING FOR THE BREAK-EVEN

To compute for break-even, one has to understand the behaviour of cost in relation to volume and time.

Over a short period of time (one year or less) there are three types of costs in relation to volume: fixed cost, variable cost, and semi-variable cost.

What is fixed cost?

Fixed costs are those costs that are incurred regardless of the volume.

Examples of fixed costs are rent of the building, property insurance, depreciation (if based on straight-line method) and salary of management.

Whether there is production or not you incur fixed costs.

It must be noted that if the total fixed cost is divided by volume, the bigger the volume is, the smaller the unit cost becomes (see Exhibits 3 and 4).

What is variable cost?

Variable costs are those incurred in proportion to the volume. No production, no cost. The more units produced, the more costs.

The cost varies in relation to volume.

It must be noted that if total variable cost is divided by the number of units, the unit variable cost remains the same (See Exhibit 5). Thus, if you know the unit variable cost and the volume, then you can get the total variable cost by multiplying the unit variable cost by the volume.

$$\text{Total VC} = \text{Unit VC} \times \text{Volume (X)} \qquad \text{Equation 1}$$

$$\text{Total VC} = \text{VC} \times X$$

$$400 = 400 \times 1$$

Examples of variable costs include raw materials, fuel, depreciation, (based on operating hours) and compensation based on volume (e.g., piece or rate commission for salesman).

Exhibit 3

<u>Volume in No. of Units</u>	<u>Total Fixed Cost (500,000)</u>	<u>Unit Cost</u>
0	500,000	0
1,000	500,000	500
2,000	500,000	250
3,000	500,000	167
4,000	500,000	125

Exhibit 4

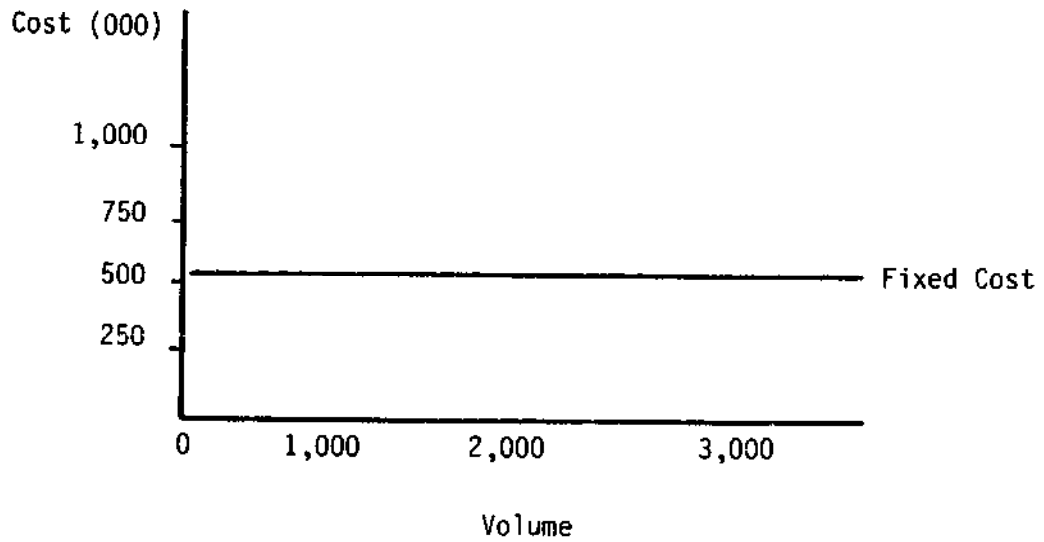
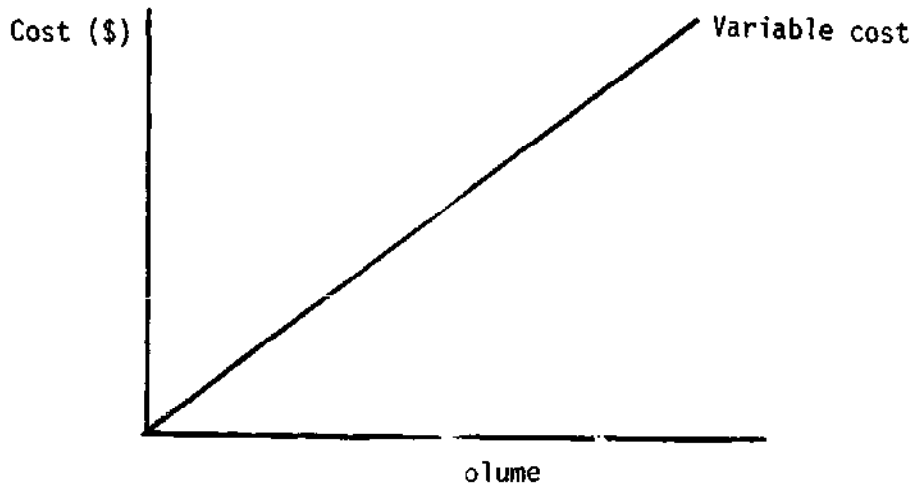


Exhibit 5

<u>Volume in No. of Units</u>	<u>Total Variable Cost</u>	<u>Unit Variable Cost</u>
0	0	0
100	250	250
200	500	250
300	750	250
400	1,000	250

Exhibit 6



What is semi-variable cost?

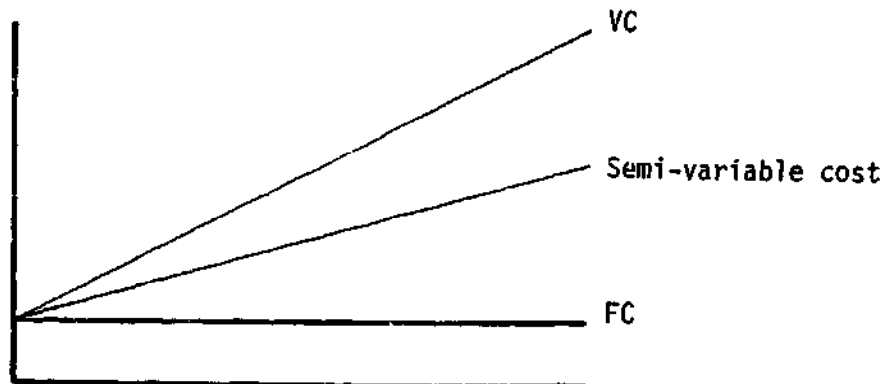
It is cost that changes with the change in volume but not in direct proportion (See Exhibits 7 and 8).

Examples of semi-variable cost are certain supplies and transportation cost.

Exhibit 7

<u>Volume in No. of Units</u>	<u>Total Cost Semi-Variable Cost</u>	<u>Unit Cost</u>
1	200	200
2	260	130
3	280	70

Exhibit 8



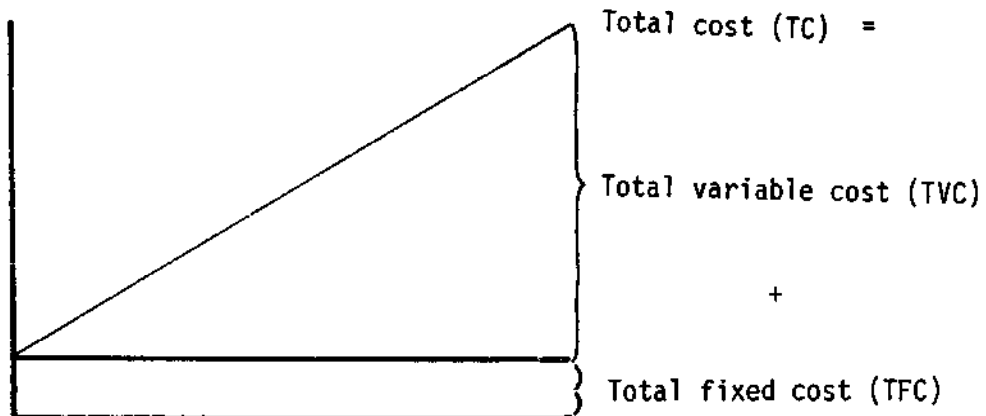
In order to facilitate the computation of the break-even point, however, costs are classified either as fixed or variable cost.

By adding the total fixed cost and the total variable cost, you get the total cost.

$$TC = TFC + TVC$$

Equation 2

Exhibit 9



Another aspect in computing for break-even is computing for the total sales.

Total sales is obtained by multiplying the volume (X) in units by the selling price per unit.

$$\text{Total sales (TS)} = \frac{\text{Selling price (P)} \times \text{Volume (X)}}{\text{Volume (X)}} \quad \underline{\text{Equation 3}}$$

$$\text{TS} = P \times X$$

At break-even, total sales equals total cost.

$$\text{TS} = \text{TC} \quad \underline{\text{Equation 4}}$$

Therefore: at break-even:

$$\text{Selling price (P)} \times \text{Volume (X)} = \text{Fixed cost (FC)} + \text{Variable cost (VC)}$$

$$P \times X = \text{TFC} + \text{TVC} \quad \underline{\text{Equation 5}}$$

$$P \times X = \text{TFC} + (\text{VC}) (X)$$

With the mathematical formula in Equation 5 you can compute for one unknown.

Example 1.

Suppose you would like to find out the Volume (X), at which the company breaks even,

So:

$$\begin{aligned} P \times X &= \text{FC} + \text{VC} (X) \\ \$500 \times X &= 500,000 + \$250 (X) \\ \$500X - \$250 X &= 500,000 \\ \$ 250 X &= 500,000 \\ X &= \frac{500,000}{\$250} \end{aligned}$$

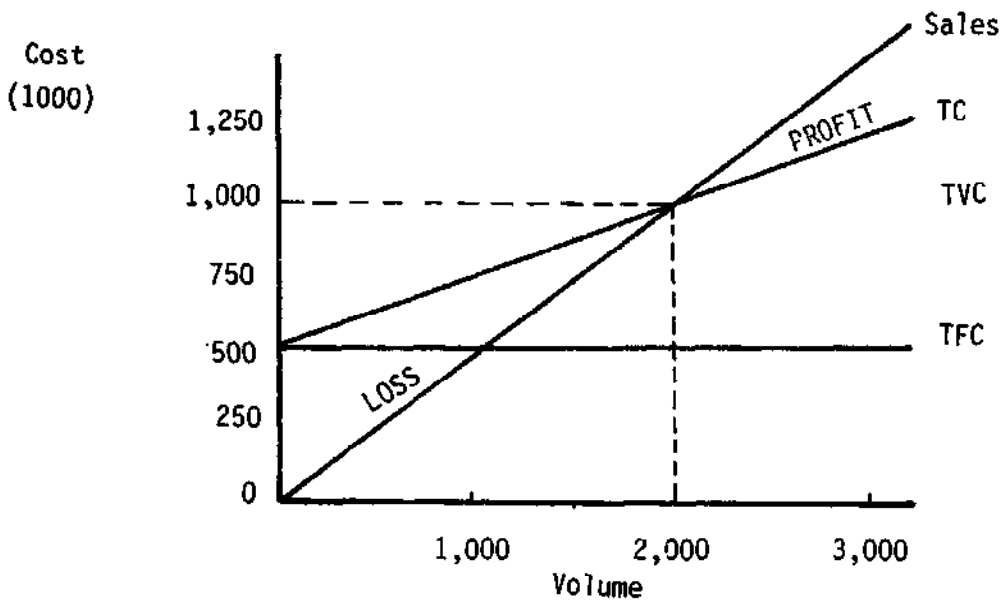
Break-even volume X = 2,000 units

To check:

$$\begin{aligned} SP \times X &= FC + VC (X) \\ \$500 \times 2,000 &= 500,000 + 250 (2,000) \\ 1,000,000 &= 500,000 + 500,000 \\ 1,000,000 &= \underline{\underline{1,000,000}} \end{aligned}$$

Break-even sales = 2,000 units x \$500 (Selling price) = \$1,000,000

Exhibit 10



Example 2:

Suppose you do not know at what price you should sell your product to break even:

$$\begin{array}{rcl}
 P \times X & = & FC + VC (X) \\
 P \times 2,000 \text{ (units)} & = & 500,000 + \$250 (2,000) \\
 \begin{array}{r}
 SP \ 2,000 \\
 2,000 \ SP
 \end{array} & = & \begin{array}{r}
 500,000 + 500,000 \\
 \hline
 1,000,000 \\
 \hline
 2,000
 \end{array} \\
 P & = & \$500
 \end{array}$$

To check:

$$\begin{array}{rcl}
 500 \times 2,000 & = & 500,000 + 2,000 (250) \\
 1,000,000 & = & 500,000 + 500,000 \\
 1,000,000 & = & 1,000,000
 \end{array}$$

Example 3:

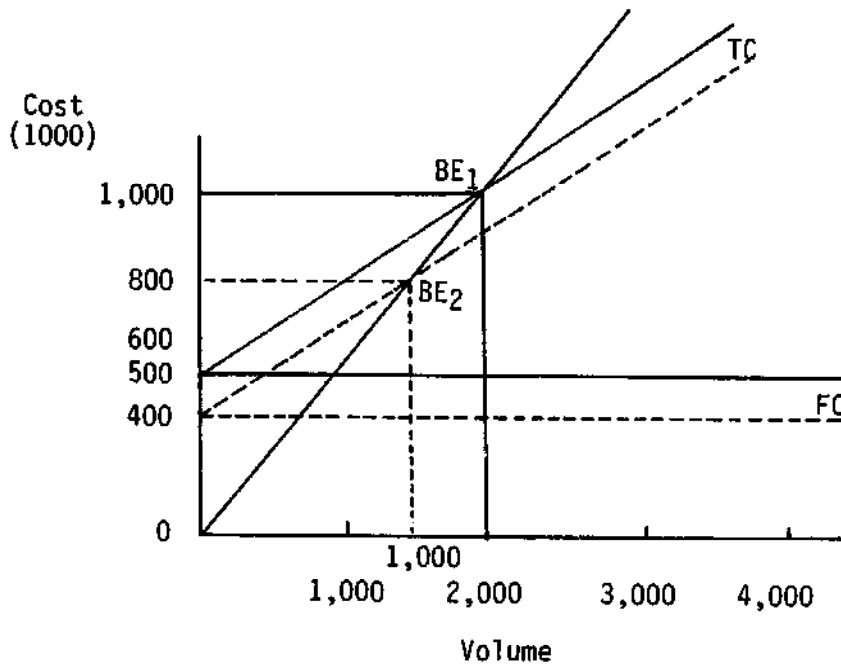
Suppose you are able to reduce your fixed cost (FC) to \$400,000 what will be the new break-even point?

$$\begin{array}{rcl}
 SP \times X & = & FC + VC (X) \\
 500 X & = & 400,000 + 250 (X) \\
 500 X & = & 400,000 + 250X \\
 500 - 250 X & & 400,000 \\
 250 X & = & 400,000 \\
 X & = & \frac{400,000}{250}
 \end{array}$$

Break-even volume = 1,600 units
 BF units x (unit price)

Break-even sales = 1,600 units x \$500 = \$800,000

Exhibit II



Example 4:

Suppose you will be able to reduce variable cost to \$200, what will be the new break-even point?

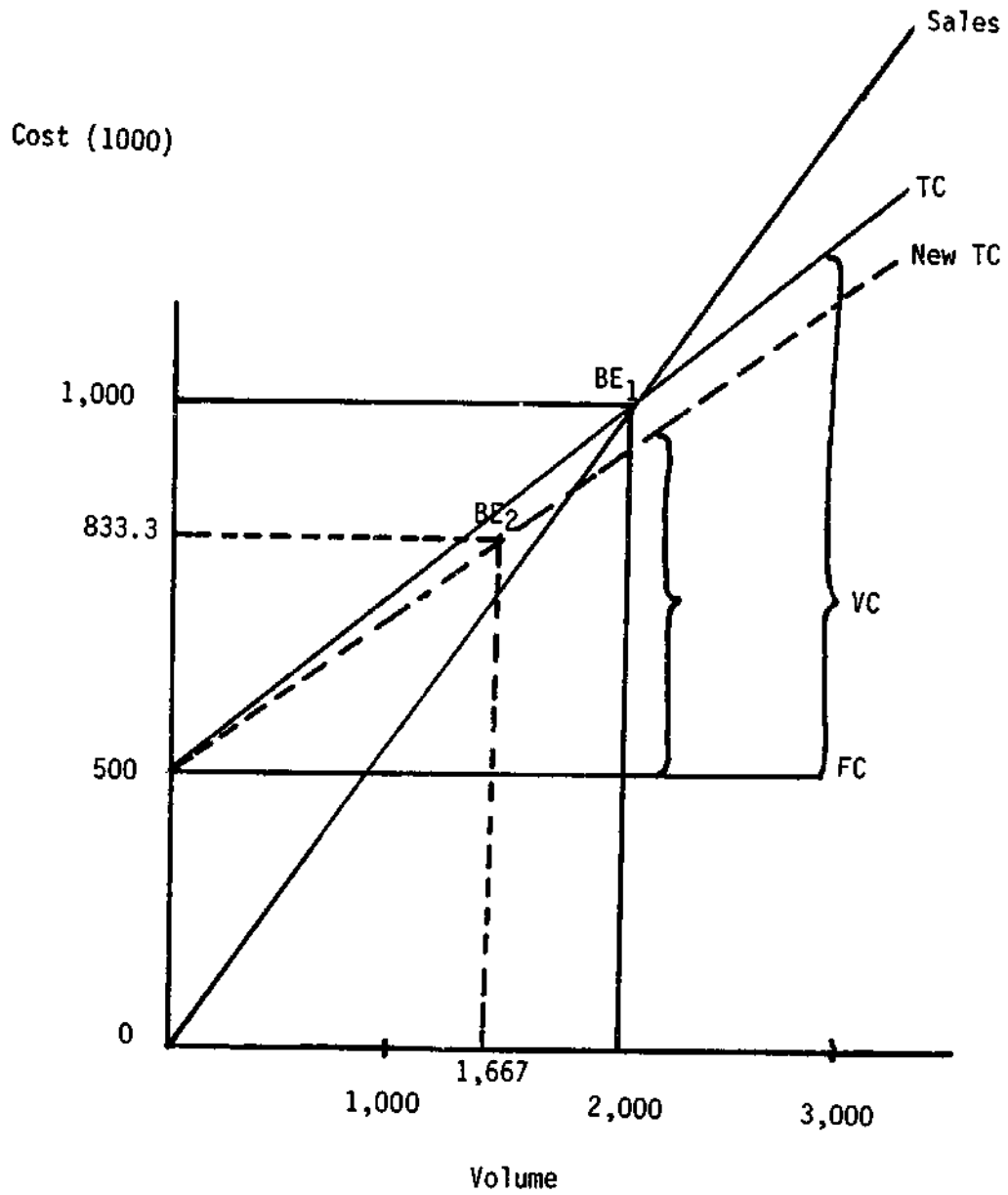
$$\text{Selling price} \times \text{volume} = \text{Fixed cost} + \text{Variable cost} \times \text{Volume}$$

$$\begin{aligned} 500 \times X &= 500,000 + 200X \\ 500X - 200X &= 500,000 \\ 300X &= 500,000 \\ X &= \frac{500,000}{300} \end{aligned}$$

$$\text{Break-even volume } X = 1,667 \text{ units}$$

$$\text{Break-even sales} = 1,667 \times \$500 = \$833,500$$

Exhibit 12



Be BE₁ = Old Break-even
BE₂ = New Break-even

Example 5 :

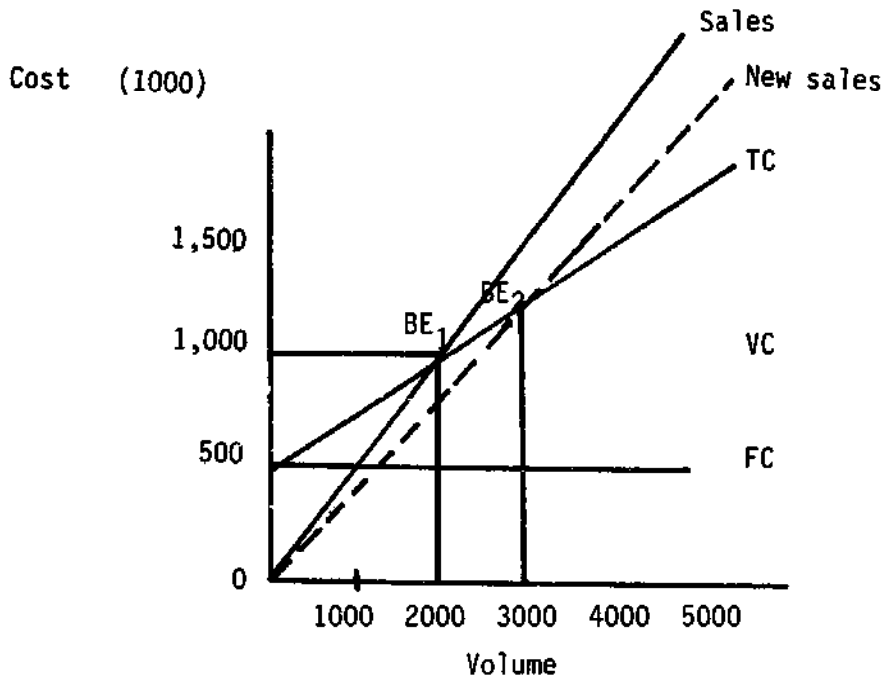
Suppose you would like to reduce the selling price to \$400, what will be the new break-even volume?

$$\begin{array}{rcl} P \times X & = & FC + VC (X) \\ 400 \times X & = & 500,000 + 250 (X) \\ 400X - 250 X & = & 500,000 \\ 150 X & = & 500,000 \\ X & = & \frac{500,000}{150} \end{array}$$

Break-even volume X = 3,333 in units

Break-even sales = 3,333 x \$400 = \$1,333,200

Exhibit 13



BE₁ = Old Break-even
BE₂ = New Break-even

The exercise can be carried on, assuming various situations.

From the examples given you can see that the profitability of the company is affected by changes in selling price, fixed cost, variable cost and the volume.

The break-even analysis helps you see how these changes happen.

THE CASH BREAK-EVEN POINT

A new way of using the break-even analysis is to look at the *cash break-even point* (CBEP). If all the transactions were on cash basis the profit break-even point and the cash break-even point would be the same. For most companies, however, this is not the case because not all transactions are on cash basis.

Examples of non-cash transactions are depreciation, amortization of leasehold improvements and amortization of pre-operating expenses.

The cash break-even point sales volume is used if cash flow is more critical than the profit picture.

The firm must be able to determine the following items:

1. unit *cash* variable cost (UCVC)
2. total *cash* variable cost (TCVC)
3. sales volume (V) in units
4. cash profit margin (CPM)
5. unit selling price (P)
6. total *cash* fixed cost (TCFC)

The formula for computing the cash break-even point is:

$$UCVC = \frac{TCVC}{V}$$

$$CPM = P - UCVC$$

$$\text{Cash break-even point} = \frac{TCFC}{CPM}$$

CBEP (in units)

Example:

Given: 4,000 units
P = \$500
TCVC = \$800,000
TCFC = \$400,000

Applying the formula:

$$\text{UCVC} = \frac{\$800,000}{4,000} = \$200$$

$$\text{CPM} = \$500 - 200 = \$300$$

$$\text{CBEP (in units)} = \frac{400,000}{300} = 1,333 \text{ units}$$

Thus, in order for the company to meet its cash needs, it must sell at least 1,333 units.

THE MULTI-PRODUCT COMPANY

A multi-product company can also use the break-even analysis.

1. The first step is to identify the variable costs and fixed costs for each product.
2. Then get a total of all the variable costs and the fixed cost.
3. Get the total sales (actual or projected).
4. The following is the formula to determine the break-even point sales volume (BEPSV):

$$\text{BEPSV} = \frac{\text{Total fixed cost}}{\text{Sales} - \text{Total variable cost}} \times \text{Sales}$$

Exhibit 14

Product	a Vol. Units	b %	c Selling price	d (a x c) Total Sales	e %	f Variable cost	g (a x f) Total VC	h Fixed Cost
A	4,000	40	\$100	400,000	22	50	200,000	400,000
B	3,000	30	250	750,000	41	100	300,000	400,000
C	2,000	20	500	100,000	5	250	500,000	400,000
D	<u>1,000</u>	<u>10</u>	600	<u>600,000</u>	<u>32</u>	300	<u>300,000</u>	400,000
	100,000	100		1,850,000	100		1,300,000	

Based on the data in Exhibit 14, the break-even point would be:

$$\begin{aligned} \text{BEPSV} &= \frac{\text{Total fixed cost}}{\text{Sales} - \text{Total variable cost}} \times \text{Sales} \\ &= \frac{\$400,000}{\$1,850,000 - \$1,300,000} \times \$1,850,000 \\ &= \$1,344,950 \end{aligned}$$

In order to get the break-even sales volume in dollars for each product, multiply the break-even point in sales volume with the percentage share of each product to total sales (See Exhibit 15).

Exhibit 15

Product	Unit SP	Percentage Share to total sales	Individual break-even in \$	Individual break-even in units
A	100	22	295,889	2,959
B	250	41	551,429	2,206
C	500	5	67,248	134
D	32	32	430,384	13,449
		100%	1,344,950	



In order to get the break-even volume in unit for each product, divide the individual break-even in dollars by the unit selling price.

As in the break-even analysis for a single product company, with the above formula, you can have different assumptions on the different variables and see the effect on the profitability of the company.

In other words, with the above formula, you can see the effect on the profitability, if you change the selling price, fixed cost or variable cost.

LIMITATIONS OF BREAK-EVEN ANALYSIS

Although break-even analysis appears to be simple enough, it has some limitations, namely:

1. Difficulty in classifying or identifying some costs as variable or fixed costs.
2. Some costs do not move in a straight line as shown by the charts but more like a curve () or a stairway ().
3. In the break-even analysis, we change only one variable at a time (e.g., price) and assume the other variables constant. In many cases, however, if we change one variable, like price, it might also affect the other variables, like volume, which in turn affect profitability.
4. For a multi-product company, allocating cost common to all products may present a problem.
5. The information input for break-even analysis are usually based on historical relationship. This relationship, however, may not be stable over time.
6. Since the time horizon for break-even analysis is a short one, it is good only for short-time planning.

Despite these limitations of break-even analysis, it can be a very useful tool for a manager, when properly used.

QUESTIONNAIRE GUIDE^{1/}

The guide is basically a series of questions encompassing the operational phases of a small business which will enable you to analyze your business. The questions are broken down into the four functional areas of marketing, production, finance, and personnel organization.

Accompanying each question are comments which do not supply definitive answers to the questions but provide a "reason why" for the questions and a direction for further study, when needed.

The purpose of this guide is to highlight strengths and weaknesses in a firm's management policies and in their execution. It may be true that such strengths and weaknesses will show themselves eventually through a firm's financial statements. However, it is clearly useful to know them in advance. This self-analysis is designed to help you eliminate weaknesses and capitalize on the strengths.

^{1/}Adapted from *Small Business Administration*, U.S.A.

This questionnaire is based on the following assumptions:

1. There are broad, non-monetary principles of good management.
2. When too many of these principles are not being followed, the financial picture of a firm is likely to suffer.
3. It is possible to identify areas in a firm which are not well-managed and which, if unchanged, will impair the firm's financial structure.
4. It is frequently possible to identify these problem areas sufficiently in advance.
5. The present questionnaire can be used in indicating these areas.

Answer the following questionnaire guide simply with a *Yes* or a *No*.

PERSONNEL MANAGEMENT AND COMPANY ORGANIZATION

	<u>Yes</u>	<u>No</u>
1. . Do you find it hard to cope with key functional areas of management?	___	___
. Does your company have a written organization chart?	___	___
. Are all important activities adequately supervised?	___	___

COMMENTS

With the exception of firms with only half-a-dozen or so employees, well-managed companies usually have some form of organization chart. Without rather specific lines of authority which are defined by such a chart, overlapping responsibility can cause inefficient use of personnel or other resources. In addition, where no chart has been made, it may be difficult to pinpoint certain responsibilities.

	<u>Yes</u>	<u>No</u>
2. Do you encounter any of the following personnel problems?		
. High turnover rate (number of personnel who left your firm in a given year)	---	---
. Absenteeism	---	---
. Relations between workers and management	---	---

COMMENTS

Good management and good employee relations go hand in hand. Ways to avoid these problems include: a clear policy usually in writing, on absences; a good pay incentive scheme to encourage good and deserving employees to stay; and an employee suggestion system to solicit valuable ideas and operational savings, as well as improve communication channels between management and labour.

3. Have you delegated as much authority and responsibility as possible to key members of your staff?	---	---
--	-----	-----

COMMENTS

When you delegate authority to key members of your staff, you are free to do other important functions. The extent to which you do this, of course, depends on the competence of your supervisors. Delegation of authority serves a double purpose: (a) It takes you away from details and allows you more time for activities connected with your company's management and growth; and (b) It promotes employee morale by giving your subordinates a chance to exercise their ingenuity for their own benefit and that of the company.

4. Does each employee clearly understand his job?	---	---
---	-----	-----

COMMENTS

It is difficult to maintain efficient operations if each employee does not know precisely what he and his fellow employees are supposed to do. Only when their jobs are understood can a company maintain good employee relation. Knowing your job prevents work duplication. It prevents employees from neglecting work that should be done. It is helpful in promoting growth in the job and in directing the efforts of deserving employees toward advancement in your organization. All these objectives mean growth in a well-managed business.

5. Does each individual in your company know who, if anyone, reports to him?	---	---
--	-----	-----

COMMENTS

In general, it is dangerous for one individual to have more than five or six people reporting directly to him. Once this number is exceeded, managing employees may become too unwieldy, at the expense of maximum group efficiency. When lines of authority and responsibility are clearly known to all employees, each can do his job more efficiently. In well-managed firms, safeguards against waste of human effort are just as important as safeguards against waste of materials.

6. Are you giving thought to the problem of what the organization of your company will be five years from now?

Yes No

___ ___

COMMENTS

In most progressive companies, growth is uppermost in the minds of the entrepreneur. Growth implies increasing need for organization. Lack of thought relative to this problem indicates either a bad assumption about your company's future growth or failure to consider this factor. The growth-minded entrepreneur must think of the direction that his company will take. Will he expand his present operations or diversify? What type of new jobs will he need as a result of his planned growth? The farsighted entrepreneur must also consider who to develop as his possible successor as top man in the business.

MARKETING

1. Does your company systematically review present markets and investigate and develop new domestic and foreign markets?

___ ___

2. Does your company try to find out detailed market potentials for its products?

___ ___

3. Does your company continually appraise markets and customers to ascertain their relative profitability.

___ ___

4. Does your company know the degree of market coverage which it has attained for each product?

___ ___

5. Does your company periodically study and review the buying habits, preferences and needs of the various elements of its market?

___ ___

COMMENTS

To an increasing extent, well-managed firms are making rather complete sales forecasts several times a year. The sales forecast is the cornerstone of all management planning. It forms the basis for production planning and control, for determining the extent of selling and administrative programs, and for fixing the amount of allowable overhead.

	<u>Yes</u>	<u>No</u>
6. Are the following activities carried on as part of your company's marketing activities?	---	---
. Analyzing customer preferences?	---	---
. Obtaining customer reactions to product specifications and prices?	---	---
. Preparing and keeping accurate records of advertising budgets?	---	---
. Testing the effectiveness of advertising?	---	---
. Developing sales catalogs, display materials, printed matter, dealer support and other promotional aids?	---	---
. Determining products to be sold?	---	---
. Formulating selling plans?	---	---
. Setting sales quotas?	---	---
. Preparing price lists?	---	---
. Setting performance standards?	---	---
7. Are advertising and sales promotion materials and program closely coordinated with direct selling effort?	---	---
8. Are continual comparisons made between your company's advertising and sales promotional programs and those of its competitors?	---	---

COMMENTS

Marketing includes all the policies, plans and operations which move products or services to the ultimate user. The activities mentioned in these questions are carried on by most well-managed companies - some formally; others informally.

PRODUCTION

Yes No

1. Do you regularly establish clear-cut output goals and production schedules?

___ ___

2. Are regular and complete production reports made?

___ ___

COMMENTS

Without clearly establishing output goals and production schedules, it is impossible to keep costs as low as they might otherwise be. Most well-run firms appear to recognize this fact and make provision for such planning.

3. Are specifications for your products worked out and agreed upon before you begin production?

___ ___

COMMENTS

A positive answer to this question indicates a desirable and necessary effort on your part to know what customers want before starting to produce the product. Such information is needed to avoid delays, spoiled work and general customer dissatisfaction. Planned product development from the production standpoint is a means of assuring smooth operations in your plant.

4. Does someone have the final responsibility for the quality of your products?

___ ___

COMMENTS

A tendency to pass the buck and not to pinpoint responsibility for certain things on one person or group is a sign of weak management. To prevent the obvious bad effects of widespread responsibility, someone should have ultimate responsibility over the quality of your products.

5. Are delivery dates regularly met?

___ ___

COMMENTS

Meeting delivery dates indicates, among other things, the eagerness of the owner-manager to satisfy his customers as well as his ability to do so.

6. Are your sales records regularly analyzed in order to obtain information which will help simplify production controls?

___ ___

COMMENTS

Such analysis is a refinement which is frequently found in well-run firms, although a firm may be very successful without carrying on such analysis formally.

Yes No

7. Have break-even points been estimated for your company's operations?

COMMENTS

Sound planning is particularly important in well-managed companies. To develop realistic, successful planning, you must understand clearly what influence any increase or decrease in certain operating factors -- volume, selling prices, various operating expenses, and plant and equipment facilities -- will have on your profit. Some important effects of these several factors can be demonstrated by establishing break-even points for varying situations. Increasingly, well-managed small firms are making real efforts to ascertain at least rough break-even points.

8. Is your company continuously doing something to educate individual employees on how to reduce waste?

COMMENTS

Practically all manufacturing operations have some waste in materials, machine and men. Optimum use of all three is the goal of a well-managed plant. Manufacturing costs can be lowered and profits can be increased: (a) if you know what materials, machines, and men are being wasted; (b) if you set controls to reduce waste; and (c) if you conduct training programs to implement such controls.

FINANCE

1. Do you experience decreasing gross profit margins?

COMMENTS

Gross profit is the ratio between the cost of production (materials plus labour and overhead) to sales. Lower gross profit would result in lower after-tax profit. Adequate gross margin is necessary to cover selling and administrative expenses known as operating profit and financial charges (interest on borrowed funds) plus a reasonable after-tax profit. Decreasing gross profit margins could be traced to high prices of inputs (materials and labour), high pilferage of materials, high labour cost due to poor design and low prices due to competition.

Management should look into purchasing policies, inventory control and labour productivity and find the viable means to increase gross margins.

2. Do you consider the return on your investment acceptable?

COMMENTS

When you use your own funds in business operations, you expect returns which should not be lower than what the banks would give you on time deposits or other short-term investments. Low returns on your investment could be traced to high cost of borrowed funds. If this is the case, you should evaluate your sources of funds and seek cheaper funds. High operating costs, selling and administrative expenses as well as production costs are immediate causes of low returns. A detailed cost analysis of operating as well as production costs could determine the underlying causes of decreasing profitability.

	<u>Yes</u>	<u>No</u>
3. Do you experience any of the following?		
. Ratio of cash plus accounts receivable is less than 1%	—	—
. Growing accounts payable?	—	—
. Inability to get supplier's credit	—	—
. Delayed payroll?	—	—
. Growing accounts receivable?	—	—

COMMENTS

A yes answer to majority of these conditions would indicate poor liquidity. Underlying causes of declining liquidity may be poor profitability, undue overstocking of inventories, undercapitalized operations or unreasonable withdrawals by owner overspending on fixed assets and inadequate credit and collection policy, resulting in high trade account.

A first step to solve poor liquidity is to evaluate your credit and collection procedures and implement a more effective funds management to include the preparation of cash flows and capital budget.

4. Do you experience difficulty in raising long-term capital?	—	—
---	---	---

COMMENTS

In addition to your own funds, your operations will require borrowed funds with long-term maturity to finance fixed asset acquisition and a portion of working capital requirements. Difficulty in raising long-term capital could be traced to your inability to meet the collateral requirements of the bank or your poor credit standing with the bank. Your management capabilities may be in question when your own investment is too low compared to the borrowed funds. In spite of your good credit standing or solid collaterals, you might be scared to deal with banks or you may lack the necessary understanding of borrowing practices.

CHAPTER IX

EXPANDING AND DIVERSIFYING THE ENTERPRISE

The small enterprise should be concerned not only with mere survival but also with growth. To keep pace with the dynamic economic environment and stay competitive, the small manufacturer should consider opportunities for expansion, diversification or both. Expansion indicates an increase of the same product line, while diversification implies more than one product line, more than one type of services offered, more than one type of marketing channel or various combinations of these and other alternatives.

Choosing between these two growth patterns will depend on the prevailing conditions in an enterprise and its environment. The availability of resources, manpower, financing and facilities may serve as an index in selecting the right approach. This is rather critical in a small firm as the entrepreneur usually has a narrow perception of his own business pulse. It is ideal, therefore, to seek the advice of industrial consultants from the government or from a private group.

Nothing is constant except change. This is a truism that is more pertinent today than ever before. To survive and grow in business, a small enterprise has to be flexible and adaptable to the constantly changing needs of its environment. The more dynamic the environment, the more difficult it is for an organization to identify and implement the changes it needs to keep pace with.

Managing a growing enterprise requires a fine coordination of people and systems. Like an organism, it has to be nourished and cultivated so that it will survive and grow. Survival in the business world is a feat in itself. Growing, of course, takes even greater effort.

This chapter is intended to provide the small entrepreneur with useful information which would serve as a guide in coping with the changes taking place in his environment. Specifically, this chapter will define growth as it relates to the small enterprise, identify the indicators of growth, describe the basic growth pattern and suggests possible approaches to business expansion and/or diversification.

WHAT IS GROWTH?

Which entrepreneur does not dream of growing? And you are not an exception. Your desire for growth is deeply rooted on your need to achieve and to compete with others as well as with yourself. In a sense, therefore, growth, is a measure of how much you want to achieve. In the process of growing, you will try to reap profits from and flow back into the business whatever you have accumulated. You will continuously try to capture a bigger share of the market. And when you see an opportunity to prove yourself in other product or service lines, then why shouldn't you take it?

Growth may be defined simply as an act or process of growing. An enterprise is said to be growing when it adds or develops a new product or service to its existing line in order to penetrate previously untapped market or when it extends its present facilities and improve its production system to be able to produce more, eventually enlarging its market scope. The basic growth patterns are *diversification*, *expansion* or both. This concept of growth will be the basis of the succeeding discussions.

As a small entrepreneur, you will be concerned with two basic questions: When to grow and how to go about it. The question of when to grow can be answered if you are aware of the various factors that indicate growth. Some manifestations of growth in a small enterprise are:

1. When market share is maintained or increased without additional marketing efforts.
2. When seasonal fluctuation is not a factor of sales and production.
3. When there is an increase in net earnings.
4. When new product line is produced without necessarily increasing manufacturing facilities.
5. When there are positive results based on financial indicators, like fast turn-over, reduced debt/equity ratios, sales increase, less receivables, etc.
6. When there is a continuing and growing interest among investors.

The existence of some or all of these manifestations in your enterprise not only indicates sound performance but also signifies that it is time to grow. However, you should be cautioned that growth requires careful planning and deliberation.

THE MECHANICS OF GROWING

As mentioned earlier in this chapter, the two basic growth patterns are diversification and expansion.

DIVERSIFICATION

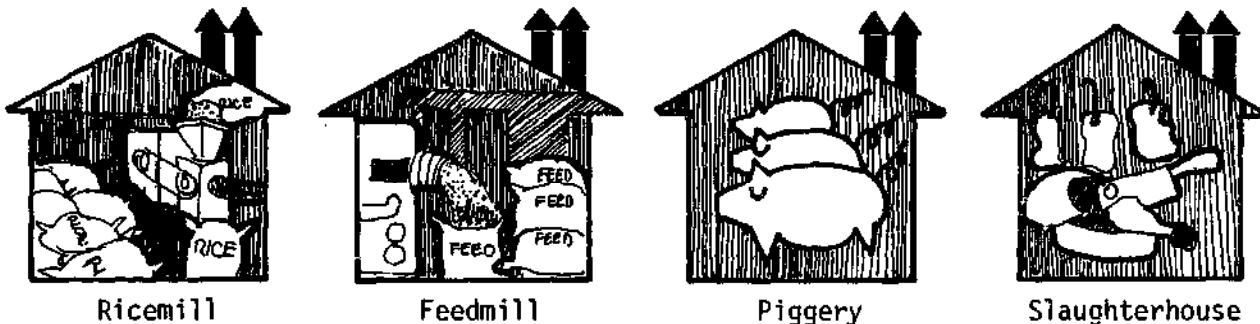
Diversification is defined as a product - market oriented approach to growth. This means that an enterprise adds or develops a new product line to its existing products and penetrates previously untapped markets.

Advantages/disadvantages

Some of the advantages offered by diversification are:

1. Diminishes the adverse effect of cyclical variation.
2. Increases potential customers by adding a new line of product.
3. Offsets the effects of seasonal variation.
4. Stimulates business with small additional investment and overhead.

Diversification provides a broader operating base from which to meet competition. It enables a small business to withstand the changing economic conditions in which it operates. And, it can help to avoid the risks of too much reliance on a single line.



Although it offers many advantages, there are also certain disadvantages involved in the process of diversification. These include:

1. Dilutes of managerial ability.

There is a tendency to lessen management efficiency because of too much pressure from the various product lines. Hiring of additional management personnel will diminish the danger but will reduce as well the proportion of profits.

2. Creates new problems rather than solves existing ones

This danger may be clearly described with the following example.

Mr. Lim has been managing a small retail furniture store for the last five years. Recently he was alarmed to find out that his sales and profits were declining even as competing stores managed to stabilize, if not grow. As a solution, he added electrical appliances to his furniture line. At the start, total sales

and profits did increase. However, when the appliance sales stabilized, total sales continued to diminish primarily because of a continuing decline in furniture sales. As it turned out, the diversification move designed to offset an existing problem, actually aggravated the situation by creating new problems of its own.

Factors of diversification

Generally, the desire to diversify is attributed to both external and internal factors which directly affect the operation of a company.

1. External factors

a. Intense competition

Because of stiff competition, a company can no longer market its existing product profitably and looks for a new one in order to stay in business. For example, a small shoe factory that specialized in hand-made shoes competing with a big-name shoe manufacturer can diversify into the production of belts and handbags.

b. Technological breakthrough

Technology is a very dynamic field. Because of constant changes, a need currently being served by a product is suddenly eliminated. For example, the production and sale of sliderules is phased out due to the introduction of electronic calculators.

c. Spreading the risk over or tapping of opportunities offered by several industry sectors

This may be summed up in the old saying: "Don't put all your eggs in one basket." For example, a trucking company catering to grains, bottling and shipping company can diversify into the towing requirement of the automobile industry.

d. Government/legal restrictions and considerations

When a government authority or instrumentality prohibits certain business practices in the wider interest of social welfare or economic development, a concerned enterprise can start looking for alternatives. The ban on the export of forest products to preserve natural resources, for instance, forces a trading entrepreneur to go into the manufacture of these forest products. A concrete example is the manufacture of cane furniture.

e. The need to be represented in growth markets and the growth sectors

Favourable market demand for a certain product encourages producers to diversify. For example, a boom in the wooden toys export market induces an existing wood-working shop which is in the handicraft line to enter into and be represented in that growth market sector.

f. Change in trends and fashion

These changes, predominant in the "fashion glamour" industries, such as those dealing in garments and accessories, also applies to cars, houses, furniture, etc. Example: The sudden disappearance of double-knit pants and the entry of the jeans.

g. Lessening the effects of the business cycle

The seasonality of demand for a certain product compels the entrepreneur to add others into the product line. Example: A garment firm producing sweaters may venture into sportswear to offset the highly seasonal sales of sweaters during cold months.

2. Internal factors

a. Original products losing out to substitute products

In time, the substitute products may turn out to be more saleable than the original product. Paint manufacturers, for instance, observe a fast declining sales of indoor and outdoor paints due to the gaining acceptance of wall paper and natural look finish of out-door walls such as the sandblasting finish and the synthetic adobe finish. Consequently, paint manufacturers are forced to improve the quality of paints and to develop new markets.

b. Reclining or utilizing by-products and waste materials

In order to maximize production output, by-products and wastes produced in vast quantity are reprocessed or recycled. For example, rice mill with plenty of by-products in the form of rice hulls from its rice milling operations, can go into the production of hollow blocks utilizing rice hull as a raw material, or into the production of animal feeds utilizing rice bran, another by-product of rice-milling operation.

Further example is a garment factory that decides to manufacture pot holders, doormats, and stuffed toys out of excess trimmings from the garment production.

c. Gap in the product range

A company realizes that a gap in its current product range exists and takes steps to fill it. For example, a firm engaged in the production of food condiments such as fish sauce, vinegar and soy sauce realizes it has to manufacture tomato or banana catsup.

d. Complementary products

A company sees an opportunity in the manufacture of products complementary to the one currently being produced. In the Philippines, for example, many metalworking shops tapped by car manufacturers under the progressive car manufacturing incentives program to produce spare parts of cars are already manufacturing products complementary to those subcontracted to them.

e. Maximizing production capacity, production affinity, research and development strengths and marketing affinity

A company makes up for its weaknesses and exploits its strengths by making full use of its production capacity, production affinity and marketing affinity or relationship.

Production affinities include those production related strengths which the firm can exploit like: available technical/scientific expertise and skills, multi-purpose production facilities/machineries and equipment, strengths in research and development, materials which can be made into different products and reliability of raw material supplies. For instance, a company engaged in the fabrication of stainless kitchen equipment for the restaurant and hotel markets may diversify into the production of stainless kitchen equipment (portable) for the middle and high-income group household market.

Marketing affinities on the other hand, refer to marketing mix strengths like well-dispersed channels of distribution, a popular brand image, unutilized sales force or marketing staff and strong and widely dispersed advertising and promotional programs. For example, a small-scale plastic games manufacturer, supported by an established distribution channel consisting of practically all bookstores throughout the country, diversifies into the production of paper clips, stationeries and stuffed toys.

The above mentioned reasons for product diversification seldom occur singly. They are in fact so closely interrelated that one factor may cause another. If the examples given seem simple and easy, do not be deceived. In reality, a decision to diversify is the result of a long and often tedious process.

Techniques of diversifying

Principal diversification techniques, mainly relate to:

1. Product manufactured

By offering new product lines to a previously unattended market is a diversification technique. For example, since snow tires have made inroads on tire chains, the chain manufacturer turns to other types of chains.

2. Service offered

New services are added to original services offered to clients and customers. For instance, a boatyard provides repair and drydock equipment designed to attract more customers.

3. Completing the product and/or service line

New products or services are added to make a full-line available. Thus, a phonograph records manufacturer may not only make a complete line of supplies but may offer repair service on record players as well.

The product diversification process

The following steps do not answer precisely your problem on how to diversify your product or products.^{1/} Rather, they provide guidelines which will help you make a decision and formulate a strategy relating to product diversification.

1. Product idea generation

Even at this stage, you are already faced with a new-product development problem. At the same time that you are aware of your reasons and motivations to diversify, you may have to deal with equally compelling negative considerations such as:

- a. To develop new products and diversify is quite expensive.
- b. Most product ideas that go into product development never reach the market.
- c. Many of the products that do reach the market are not successful.

Do not let these negative factors dampen your enthusiasm prematurely. Keep them in mind, nevertheless, as you plan and deliberate on the diversification process.

Among large and well-organized companies, product idea generation or gathering is handled by a group of product managers or product committee or some other "think tank." This group's principal function is to explore or generate new product concepts and ideas. As a small entrepreneur, however, you are your own principal "idea man." Of course, this usually limits the range and depth of ideas generated since your varied functions in managing the enterprise leave you little time for creative thinking. For this reason alone, it is not uncommon to see small and medium firms brashly imitating products of their competitors.

It therefore, becomes necessary for you to organize the product idea generating process. Here are a few tips on how:

a. Sources of new-product ideas

Generally, new-product ideas come from such major sources as: customer/clients, competitors, company salesmen, and top management. But such other sources as the following have been found effective:

- . trade expositions, fairs and exhibits
- . scientific journals, magazines, brochures and other publications
- . foreign travels
- . trade associations/organizations

^{1/}Madroño, "How to diversify your products."

- . patent and copyright offices
- . distribution channels
- . ministries of industry/trade

There are many other sources that can be cited, but it is useful to remember that ordinary people and commonplace things you see everyday can spark your imagination on a certain product.

b. Idea-generating devices

From among the sources mentioned, one can think of a variety of new-product ideas. The process of generating these new-product ideas require a combination of guts, inspiration, perspiration and method. Individuals have different methods of stimulating their own creativity and companies have developed their own. Here are a few tested ones.^{2/}

. Organized group experiences are a very common method of acquiring ideas. Normally a brainstorming session is headed by a chairman who is chosen from among the group to allow an atmosphere of cordiality and the least restraint. The objective here is to stimulate greater creativity and a free flow of ideas. Brainstorming can be structured or unstructured.

. Forced relationships

This technique depends primarily upon the listing of a lot of ideas and then considering each one in relation to every other one as a means of stimulating the idea-generation process. For example, a manufacturer of wooden furniture who is seeking new product ideas might list all separate items he manufactures like desks, chairs, tables and cabinets. Then he starts free-associating the relationship between a desk and a cabinet. This may lead him to visualize the possibility of designing bookshelves, room dividers and many other office and household furniture items.

. Attribute listing

This method involves the listing of attributes of a product and then modifying different attributes in the search for a new combination which will improve, if not totally redesign, the product.

Chapter II, Exhibit 4 provides some useful guides in product-idea generation using the attribute listing device.

^{2/} Kotler, *Marketing Management*, 202-205.

Structural analysis

This method consists of selecting the most important aspects of a problem or need and then examining all the relationships among them. For example, the fuel crisis has indicated a need for a device that can be utilized by an ordinary housewife both for simple cooking and baking purposes, regardless of the type of fuel. One dimension of this problem is the *type of cooking device* to use. This suggests such possibilities as stove, range, oven, etc. The second dimension is the *medium which the device is made of*. This suggests such possible materials as: stainless steel, aluminum, cast iron, enameled steel, clay, etc. The third dimension is the *fuel requirement*, suggesting such possible fuels as wood, electricity, charcoal, etc. These variables are then combined into a three-dimensional structure consisting of all listed attributes. The next step is to let the imagination flow on each cell or cube in the structure. Simply put, you are now ready to examine each interrelationship between and among these three dimensions. You will be surprised at the great variety of products that can be turned out from the structure. One such product is the multi-purpose cooker, now gaining in popularity among developing countries, which can be used for steaming, baking, frying, etc.

One will notice that in this idea-generating stage, the more product ideas that are brought about, the better. During this stage, quantity is the objective. Even the most unheard of or seemingly silly ideas are entertained. From here, these ideas are incubated or stored and later cut to pieces or screened.

2. Screening

The objectives of screening is to eliminate from further consideration those product ideas that are inconsistent with either company objectives or resources. The screening procedure varies from company to company depending on how sophisticated it is. Generally, larger firms have better and stricter screening procedures than smaller firms. Small entrepreneurs, on the other hand, tend to do the screening process right at the idea-generation stage. Another tendency among small firms is to use resource criteria as the predominant factor in their product diversification decisions. The screening process is also described in Chapter II.

The above criteria, however, should not be applied rashly. You may not accept or reject a product idea without looking into its impact to the company as a whole. The need for an integrative means of evaluation and screening is, therefore, necessary.

3. Business Analysis

Business analysis occurs not only at this stage but throughout the whole development process as new information is accumulated about the product or products and the market.

The purpose of analysis is to make the necessary rough estimate or projection on the future sales, profits, and rate of return for the proposed new product.

Various methods can be employed in carrying out the business analyses. Several analytical methods are described in some detail in Chapter VIII .

4. Product development

A product idea that passes through the business analysis stage can now be turned over to the production department or the research and development unit. At this stage the idea is developed in "concrete" form.

There are four steps involved in production development: engineering, consumer-preference testing, branding, and packaging.

a. Engineering

Engineering studies involve the design of the product and development of prototypes or models. The objective here is to come up with a prototype that would be trouble-free, economical to manufacture, and appealing to the customers. Among big firms, many versions and variations are tried before a satisfactory one is found. Smaller firms, however, lacking in research and development facilities, are often satisfied with one or two prototypes. You can avail of the services of appropriate research and development agencies of the government.

Completed prototypes are subjected to rigid tests and trial runs before the products are introduced into the market. Product specifications are verified through appropriate government agencies like the food and drug regulating bodies, departments or bureaus of standards, etc.

For your protection against prospective imitators, register your patents or copyright office, whichever is applicable.

b. Consumer preference testing

This test is normally carried out by manufacturers who are looking into the distribution of consumer preferences. There are different levels of a particular product attribute. Knowledge of this distribution becomes the basis for improving the prototype or for better product development.

A manufacturer of candies for instance, may want to determine the best level of sweetness in an effort to improve his products.

There are various methods of determining the distribution of consumer preferences. These include: paired comparison, multiple choices and ranking procedures. Among small entrepreneurs, however, consumer preference is usually determined on the basis of experience, common knowledge and common sense. A small entrepreneur who desires to gain experience in more sophisticated testing techniques may seek the services of consultancy government marketing extension agencies or private consulting groups.

c. Brand naming

The objective of brand naming is to build a unique brand name that will be eventually identified with your product.

Today, the small entrepreneur is increasingly convinced that use of brand name is vital in marketing his products. Supermarket shelves seldom, if ever, display products without brands. There are, however, products that do not require brand names, like many intermediate products.

Some businessmen tend to name or brand their product after a favourite child or pet or his spouse. Others thoughtlessly pick out a brand name from "out of the blue." Still, others are more imaginative and take brand-naming quite seriously and devote much thought to it.

Some marketing research firms have developed such elaborate name-research procedures as:

- . Association sets - What images come to mind?
- . Learning tests - How easily is the name pronounced?
- . Memory tests - How well is the name remembered?
- . Preference tests - Which names are preferred?

These tests are conducted to identify and isolate the desirable qualities for a brand name. Commonly, a brand name should:

- . Suggest benefits derived from the product.
- . Suggest product qualities.
- . Be easy to pronounce, recognize, and remember. Short names help.
- . Should be distinctive.

Again, to protect your interest as a manufacturer against possible imitations; brand names should be registered with the government body concerned.

d. Packaging

Developing the package for a new product is a joint concern of marketing and production collaborating with some technical specialists. In the Philippines for example the Design Center Philippines (DCP), extends free packaging design, services to small and medium industries. In Malaysia the government agency to approach is Standards and Industrial Research Institute of Malaysia (SIRIM).

In developing the package, the following objectives and functions are taken into consideration:

- . Product protection and economy - A packaging design should be chosen that will protect the product during its shelf-life from the manufacturer to the distributor and end-user. It should be of lowest possible cost without sacrificing other marketing objectives and considerations.
- . Consumer convenience - Always keep consumer comfort in mind. Packages that are easy to open, handle, display, carry, etc., are often to be preferred.
- . Promotional value - The package should perform the following sales functions: attract attention, describe the product's features, give the consumer confidence, and make a favourable over-all impression. It should support and reinforce the brand personality the company is trying to build.

5. Test-Marketing

The most obvious reason why test marketing should be made is to determine the reaction of potential customers and distributors. The desirability and eventual success of the product, as well as of the marketing program, largely depend on test-marketing.

The underlying benefits that can be derived from test-marketing are:

Test marketing enhances your knowledge of potential production sales. It also enables you to pre-test or develop alternative marketing plans. The results of your test marketing may provide a basis for further product improvement as well as invaluable clues regarding distribution level problems.

There are other strategic reasons for test-marketing, namely:

- a. To observe competitors' marketing behaviour/reaction in relation to the new product introduced;
- b. To determine strategic area (market segment) concentrations; and
- c. To gain richer understanding of product competitiveness and the proper marketing mix of your products.

There are various questions that should be considered in test-marketing a product. These questions will help the businessman draw up his marketing test plan.

- a. How many test cities or localities should be used as test markets? Should test marketing be confined to nearby areas? Are these selected areas representative of the target market? Are the costs affordable considering the company's financial resources?
- b. Have these specific cities/localities been identified by research organizations as ideal for market testing a particular product?
- c. Who are your respondents for the market testing? customers? distributors? Define each.
- d. How long should the test run last? How much should it cost? A test-run should be long enough to get the desired results and short enough to prevent competition from catching up.
- e. What data should be collected during the test?
 - . Product-transport data: frequency of transport; shipping, hauling, etc.: volume of transport; changes in shipping schedules.
 - . Store audit: repurchase period; frequency of purchase; sales performance; competitive product terms; shelf life; observable buying habits; customers' comments.
 - . Buyer surveys: buyers' reaction/comments on quality, price, convenience in usage, functions, etc.

f. What actions should be taken after the test?

Test results should be evaluated on the basis of the objectives and guidelines set by the management. In the evaluation process however, the changes on the economic environment from the time of the launching to the time of evaluation, should be given due consideration. Also, a review on the general economic environment should be made to make possible adjustments in the marketing plan.

There are different methods of evaluating test marketing results just as there are many ways of screening product ideas. Whatever methods or techniques are employed, there are generally four possible actions after the tests to commercialize the product; to redesign or improve it; to improve the marketing mix; or to drop the product altogether.

Remember that only a few groups of product require test marketing. These are mainly consumer products. Among small-scale enterprises, test marketing may be done but on a very limited scale because of the cost involved. In very small business operations, limited test marketing can be conducted among friends and relatives. However, the result may not be very accurate and reliable.

6. Commercialization

The product which passes through the test marketing criteria is ready to be commercialized. At this stage, all attributes of the product, including packaging, must be finalized. The marketing program should be finalized as well.

The next step is to organize the necessary production requirements for commercial operations. Is there a need to purchase additional equipment, hire additional labour, expand facilities? If so, should sub-contracting be resorted to? The easiest entry into commercialization is the consideration of a pre-need study on the production and marketing affinities of the company discussed earlier.

From there, you can start the commercial manufacture of your product based on your sales forecast and corresponding schedules.

Product entry strategy

Depending upon the type of product and/or the feedback generated during the test marketing process, product entry to the market varies.

Planned market entry involves a gradual entry of the product into the market. This often involves hitting first the primary market which might include the market nearest your production or business area. Then, the second and tertiary markets are penetrated. The expansion in the outlying areas is effected only after launching in the nearest and prime areas have been completed. This also involves the choice of utilizing first the wholesalers, before attempting to channel the product among retailers, who normally get their merchandise or products from wholesalers.

Still another approach under the planned market entry is the utilization of the direct selling approach. This can be accomplished by the use of salesmen or friends. The objective here is to introduce the product at a faster pace and to create a need from among the retailers and wholesalers to carry the product. This is a reverse method compared to the one discussed above. Instead of going to the wholesalers first, go to the users/customers directly.

The "shot-gun" market entry involves a one-time national-scale market launching. This applies particularly to shorter life cycle of fad items. But this method involves a bigger investment and more manpower. This method involves the utilization of all possible channels at the same time as well as the use of salesmen. The objective here is to flood the market with the product to minimize, if not prevent, competition.

After the launching, there should be careful monitoring of the product's behaviour in terms of sales, profit contributions, and sales turn-over, over the product's life cycle. Then a thorough evaluation should be made for management to determine if there is a need to up-date, modify, improve or otherwise innovate the product itself and/or the marketing strategy.

Remember that this process repeats in cycle each time you add a new item into your product line.

It is clear that diversifying is not easy. But if planned carefully—using the broad guidelines suggested above—diversification can be worth all the effort in terms of financial gains as well as the entrepreneurial satisfaction that your business is *growing*.

EXPANSION

While diversification is a product-market oriented approach, expansion is a pattern of growth whereby an enterprise increases the production of its existing products or services in an effort to augment returns on a long term basis with the objective of strengthening both the external and competitive position and the internal efficiency of the business.

Advantages/disadvantages

Primarily, the advantages of the expansion process lie on the relative simplicity of work to be done compared to diversification. Unlike diversification which requires a thorough revision of its present production set-up, in order to accommodate the new product, the range of a firm's activities is largely unchanged in expansion. This is because the firm will be producing the same products at a bigger scale.

Another plus factor in expansion is that personnel will be involved in basically the same work with which they are already familiar. This will, therefore, ensure a smooth flow of work in spite of additional workload.

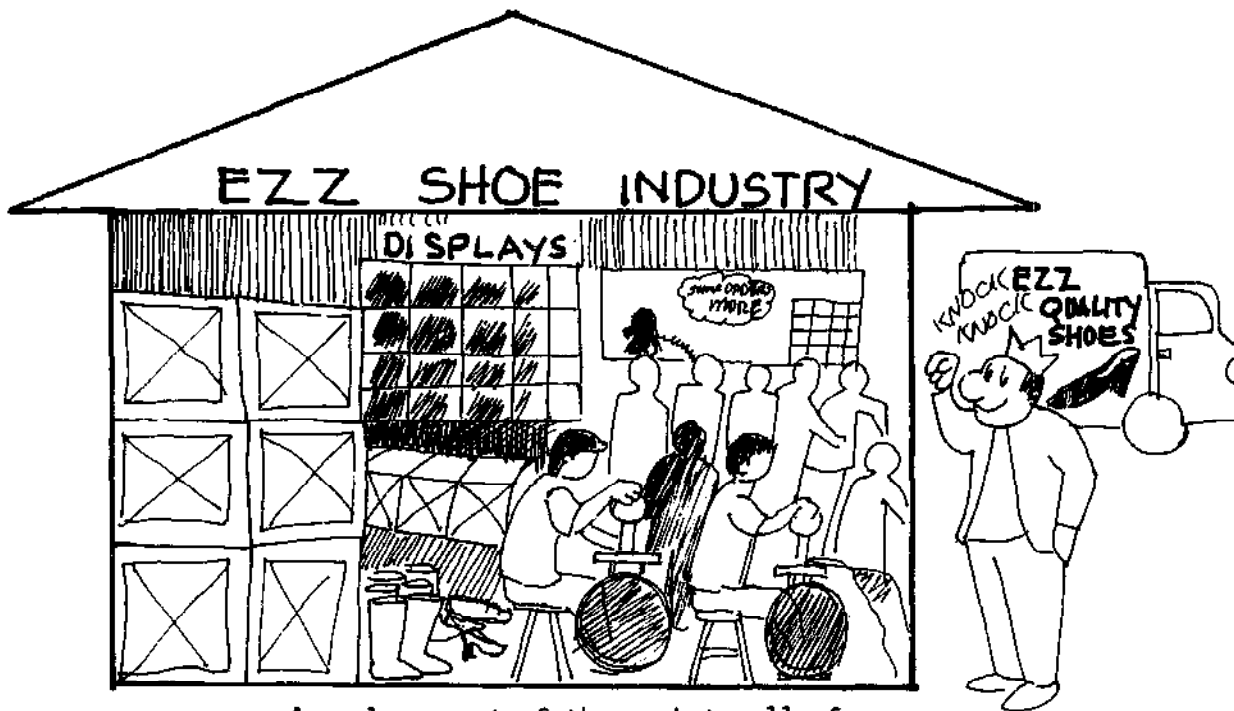
The main constraint in expansion is the lack of flexibility among workers. Because of too much concentration in a particular job, there is a tendency for these workers to be unmindful of other jobs as long as they perform well in their respective specialization. The main concern is that no worker is able to pitch in on another particular job in case a problem arises due to lack of knowledge.

However, this limiting factor can be prevented by training workers on the whole production process as well as informing them on their important role in the system. Training may be in the form of workshops or seminars. Proper motivation will encourage workers not only to excel in their assignments but to try other jobs as well, thereby enhancing the versatility of a worker.

Factors of expansion

An entrepreneur's desire to expand his production output is influenced by several factors. These include:

1. Greater market demand. An enlargement of the market calls for an expansion of production output.
2. Unintentional development of other market segments. Sometimes a new market segment is created by accident.
3. Enlargement of market. A favourable demand from previously untapped segments of the market encourages increased production.
4. Maximum use of reserve capacity. One way of maximizing an operation is by increasing its production output.



An enlargement of the market calls for an expansion of production output

Procedures in expansion

The expansion process involves a careful analysis and evaluation of external and internal factors directly affecting a company's operations. The following procedural guidelines will be useful to the expansion-oriented small entrepreneur:

1. Identify the need

One way of determining the need to expand is through market research. A need may either be apparent or not. Market research at the customer level can often help you determine the performance of your product compared with those of competition.

2. Analyze the need

List down on paper the facts about the problem and write opposite each item a personal evaluation of its influence on the total situation. Do as much advance planning as you can so as to avoid having to make hasty decision under pressure.

3. Determine and evaluate alternative solutions

When you have determined and understood fully the problems involved, write down alternative solutions. Then choose one that can best help the situation. The "ideal" expansion pattern is one that considers the existing production technique, marketing channels and personnel and requires minimum financing. In practice, however, this ideal can seldom be reached. Hence, it is necessary in making a final decision to take into account a number of constraints, including the following:

a. Ability of management

How capable are you as manager? What about your assistants and key personnel? Will you be able to handle efficiently the operation of your enterprise if it expands? These are just some of the basic questions to be answered of management when planning to expand.

b. Resources at hand or obtainable in the enterprise

Before selecting from alternative solutions you should take a close second look at the available resources. In some cases, it pays to secure new resources and move into areas previously unexploited.

c. Available financing

How do you intend to finance the expansion? Can you obtain funds internally or from an outside source? If one of the proposed alternatives requires the availability of outside capital, then funding automatically becomes a limiting factor. Furthermore, if yours is a closely held business, you would be compelled to open it up to outsiders. Be sure that you are willing to do this.

d. Marketing possibilities

The marketing process may also impose limitations on the choice of alternative solutions; that is, a particular method of selling may be successful for a certain market. All production cannot be forced through a given trade channel merely because the manufacturer has already developed that channel.

e. Putting the decision into operation

Once you have decided on a course of action, the next step would be to plan to execute the selected alternative. The proper way of doing this is to put the plan in writing showing in detail every aspect pertaining to the management, technical, marketing, and financial aspects of the plan. Describe in detail the resources and manpower and the proper "mix" of men and machines required to turn out and market the product. Because of the dynamic conditions prevailing in the business world, be prepared to revise the work plan from time to time.

f. Follow-up and evaluation

After the expansion has been undertaken, it is necessary to assess the results on a continuing basis. Carefully monitor the behaviour of the products in terms of sales/profit contributions and sales turn-over. Evaluation will help you determine if there is a need to up-date, modify, improve or otherwise innovate the product itself and/or the marketing strategy. In addition to this, you should be able to diagnose the effects or impact of the product to the industry in particular and to the economy as a whole.

APPENDIX 1

ENTREPRENEURIAL SELF ASSESSMENT SCALE

The following statements reflect some thoughts and actions of potential as well as existing entrepreneurs. As you read each one, ask yourself, "How strongly do I feel and think this way?"

Rate yourself according to the following scale by writing the appropriate letter on the space provided before each statement:

- SA - Strongly Agree
- A - Agree
- ? - Not Sure
- D - Disagree
- SD - Strongly Disagree

Don't skip any number. ANSWER ALL ITEMS.

1. When a special problem arises at the end of a hard day's work, I still find myself with reserve supply of energy.
2. Mistakes and failures overwhelm me so much I can't learn from them.
3. I find it hard to *beg*, that is, to ask favours from other people.
4. I want to earn only as much as to attain a comfortable way of life.
5. The knowledge, experience and training I have on my proposed business is inadequate.
6. While my product/service may not entirely be *new*, I am thinking of new and better ways to make it competitive.
7. It is not necessary to be *scientific* and rational about management as long as one has the *will* to do what he wants done.
8. I don't find difficulty in convincing other people to trust my ability to succeed.
9. I don't choose to work with unlovable, unpopular people even if doing so is most useful for me to do achieve my goal.
10. I need not waste time and money on "market research." If the product sells, I'll go on producing.
11. I work just as hard as most people I know.

12. I don't see the importance of reading the newspaper everyday.
13. I don't fear investing my money on a venture whose dividends I have calculated.
14. I believe problems and barriers can be turned into opportunities that can be exploited.
15. The health and vigour I display is stimulating to others.
16. I can't be away too long from my business because no one else but I can manage its activities.
17. I don't get upset when given negative feedback about the way I perform.
18. I have weaknesses and fears that are far from being resolved.
19. When I do something, I see to it that it doesn't only get done but done excellently besides.
20. I accomplish most when I'm alone, under no direct supervision of anyone.
21. I don't enjoy working in a team as a leader. I'd rather be a member.
22. I doubt my ability to cope under new, untested conditions.
23. It is I, not luck nor fate, which influence the outcome of events in my life.
24. I am frequently ill.
25. I don't enjoy outcomes, no matter how favourable, if they don't stem from my own efforts.
26. I wait for other people to originate ideas and action.
27. I find nothing wrong in consulting expert advise regarding how I must manage my business.
28. I will consider a risk worth taking if the probability for success is 30-40%.
29. I consider a customer who complains against my product a *babblemouth* negativist.
30. I will consider a risk worth taking only if the probability for success is 60-100%.
31. Stress and tension lessen my efficiency.
32. I am unprepared for the outcome of my actions.

33. I can be directive as a leader but in a way that makes people willing to follow me.
34. I don't allow failures to discourage me.
35. I don't mind routine, unchallenging work if the pay is good.
36. I am unwilling to work more than eight hours a day.
37. I enjoy activities where I get information on how well or how bad I'm doing.
38. I imagine how frustrated I would feel if my project should fail.
39. I take pleasure in responding to challenges, so competition makes me work harder.
40. I like change because I tend to be mobile and discontented.
41. I will consider a risk worth taking if the probability for success is 40-60%.
42. I am unwilling to change my mind, once it is made up, even in the face of new developments.
43. I usually feel weak and faint after a day's work.
44. I believe success is a product of luck and fate rather than personal effort.
45. I believe that sole proprietorship is the best form of ownership for a business to succeed.
46. I avoid changing the way things are done.
47. My abilities are above average.
48. If my business fails I won't take it as a personal failure.
49. I can turn my dream into a common dream with other people by talking about it in a way that excites them to help me make the dream come true.
50. I find it difficult to win friends and influence people.
51. While others see nothing unusual in the surroundings, I am able to perceive in it new opportunities for business.
52. Considering my business competence, my plans would be difficult to attain.
53. The business I'm thinking of is not really unusual.

54. I have difficulties in obtaining loans from people.
55. I can't wait and watch things happen; I prefer to make things happen.
56. I don't give up easily, even in the face of difficulties.
57. I am willing to take substantial risks for substantial returns.
58. I hire people on the basis of friendship and other relations (for their loyalty) rather than on the basis of competence.
59. I am willing to accept both positive and negative consequences of my decisions and actions.
60. The knowledge, experience and training I have on my proposed business is good enough.
61. I don't think of negative consequences to acts and decisions that I make.
62. I don't care if the profit is small so long as it is assured and constant.
63. I lack vigour and vitality.
64. I find no reason to consult other people about how to run my business better because I'm satisfied with the way I run it.
65. My competence is better than that of the ordinary man in my community.
66. I find difficulty in asserting myself against the opinion of majority.
67. Even if I am capable, hardworking and ambitious, if I don't have the money, I can't start a business.
68. I don't get discouraged by an initial "No" from a buyer because I am usually able to convince him inevitably to buy my product.
69. I am able to beat around difficulties through strokes of ingenuity and resourcefulness.
70. When I fail in a goal, I immediately turn my attention to another goal.
71. I cannot see the future as bright and promising.
72. I don't allow myself to think of the future as dim and gloomy.
73. I tend to overestimate my capacities for succeeding in any venture.

74. As an entrepreneur, I need to practise basic managerial skills so that my business need not be a one-man show but a concerted effort of myself and those who work for me.
75. The people around me now doubt my capacities to start and run a business successfully.
76. Once I have started on a task, I usually carry it to its completion.
77. I try to know more about the life stories of successful businessmen.
78. I am willing to give up full control over my business in order to welcome new associates whose funds and expertise will be beneficial to the business.
79. In business, I am more concerned with growth (being a success) rather than with profit.
80. I find it difficult to come up with new, wild or even crazy ideas.
81. I don't like a job for the good pay I get but for the satisfaction and sense of accomplishment I derive from it.
82. I fear moving into a new undertaking I know nothing about.
83. I am unable to work consistently on a goal when I meet some obstacles.
84. I find myself working harder under stress.
85. I am able to stimulate and direct others.
86. I believe there are always new and better ways of doing things.
87. I prepare for troubles before they arise.
88. I make use of records, books and reports when setting goals for the business.
89. It is not so easy for me to get people to do what I want them to do.
90. I want to have good knowledge of my market before I start my business.
91. I have never tried introducing new products to the market and I don't think I want to try.
92. I have confidence in my ability to achieve.
93. I don't mind working under conditions of uncertainty as long as there is a reasonable probability of gains from it for me.

Appendix 1
Cont'd.

- 94. I see to it that I am an expert in the product I'm selling.
- 95. I am healthy and fit for stressful work.
- 96. I meet and solve problems as they arise.

Your score on the 96 statements above are meant to indicate the level to which you exhibit or tend to exhibit twelve characteristics associated with successful entrepreneurship. The table on page 269 presents a listing of these characteristics and provides some space for summarizing and scoring your answers to the statements.

To use the table, first, record your answers (SA, A, ?, D, SD) on the line immediately below the item indicated. Note that the items are arranged in rows and in two columns. Each row represents a characteristic and the two columns represent the way of scoring your answer. Items in Column 1 are positively coded items, and those in Column 2 are negatively coded.

Positively coded items (Column 1) are scored as follows:

- SA - 5
- A - 4
- ? - 3
- D - 2
- SD - 1

Reverse scoring for all negatively coded items (Column 2) as follows:

- SA - 1
- A - 2
- ? - 3
- D - 4
- SD - 5

Record your score on each item on the line below your answer. Example:

Item	13	41
Rating	<u>A</u>	<u>D</u>
Score	<u>4</u>	<u>2</u>

Your total score for each row indicates the level at which you exhibit or tend to exhibit the characteristics. Scores are classified as follows:

High - 32 to 40

Medium - 17 to 31

Low - 3 to 16

To give yourself a picture of your strong and weak points, plot your scores on the graph below by connecting the dots corresponding to your scores on each scale.

	Low	Medium	High
Risk taking	•	•	•
Hope of success and fear of failure	•	•	•
Persistence and hard work	•	•	•
Energy and mobility	•	•	•
Use of feedback	•	•	•
Personal responsibility	•	•	•
Self-confidence and self-reliance	•	•	•
Knowledgeability	•	•	•
Persuasive ability	•	•	•
Managerial ability	•	•	•
Innovativeness	•	•	•
Achievement-orientation	•	•	•
	Low	Medium	High

Scores plotted on the left hand side indicate your weaknesses, those on the right hand side, your strengths. Do you have more strengths than weaknesses?

What does your picture look like? Are most of the scores located on the right side? Or are there several points on the left which tend to pull the points on the right? How do you feel about the picture?

The essence of taking "tests" such as this is not to feel good or bad about your score. Remember that while you don't have to prove anything to anyone, you owe it to yourself to make use of the information. Refer to Chapter 1 on Entrepreneurial Self-Assessment for discussions on entrepreneurial characteristics.

Table for Summary of Scores					Appendix 1 (Cont'd)				Total Row Score	
		Column 1 Positively Coded Items				Column 2 Negatively Coded Items				
Row 1	Risk-taking	Item : 13	41	57	93	28	30	62	82	
		Rating :								
		Score :								
Row 2	Hope of success & fear of failure	14	38	72	87	32	61	71	96	
Row 3	Persistence and hard work	34	56	76	84	11	36	70	83	
Row 4	Energy and mobility	1	15	40	95	24	31	43	63	
Row 5	Use of feedback	17	37	77	88	2	29	42	64	
Row 6	Personal responsibility	23	25	55	59	21	26	44	48	
Row 7	Self-confidence and self-reliance	20	47	73	92	18	22	66	67	
Row 8	Knowledgeability	60	65	90	94	5	10	12	52	
Row 9	Persuasive ability	8	49	68	85	3	54	75	89	
Row 10	Managerial ability	27	33	74	78	7	16	45	50	
Row 11	Innovativeness	6	51	69	86	46	53	80	91	
Row 12	Achievement-orientation	19	39	79	81	4	9	35	58	
								T O T A L		

FORMAT FOR PROJECT FEASIBILITY STUDY

I. SUMMARY OF THE PROJECT

- A. Name of the Firm
- B. Location: Head Office, Factory
- C. Brief Description of the Project
 - 1. History of Business
 - 2. Nature or Kind of Industry
 - 3. Type of Organization
 - 4. Organization Chart
 - 5. Officers of the Business and their Qualification

II. ECONOMIC ASPECTS

- 1. Market Description - A brief description of the market to include the following:
 - a. Areas of Dispersion
 - b. Methods of Transportation and Existing Rate of Transportation
 - c. Channels of Distribution and General Trade Practices
- 2. Demand
 - a. Consumption for Past Ten (10) Years
 - b. Major Consumer of the Products
 - c. Projected Consumption for the Next Five (5) Years
- 3. Supply
 - a. Supply for past ten (10) years, broken down as to source whether imported or locally produced.
 - . For imports, specify form in which goods are imported, price and brand.
 - . For locally produced goods, the companies producing them, their production capacities, brands and market shares shall be specified.
 - b. Factors affecting trends in past and future supply.
- 4. Competitive Position
 - a. Selling prices - includes a price study indicating the past domestic and import prices, the high and low prices within the year and the effect of seasonally, if any.
 - b. Competitiveness of the quality of the product.

c. Marketing program

1. Description of present marketing practices of competitors.
2. Proposed marketing program of the project describing the selling organization, the terms of sales, channels of distribution, location of sales outlets, transportation and warehousing arrangements and their corresponding costs.
3. Promotions and advertising plans, including costs.
4. Packaging

d. Projected sales

1. Expected annual volume of sales for the next five (5) years considering the demand, supply, competitive position and marketing program.
2. Sales contracts, if any.

e. Contributions to Philippine economy

1. Net annual amount of dollars earned or saved, and basis used
2. Labor employed
3. Taxes paid

III. TECHNOLOGICAL FEASIBILITY

A. Project(s)

1. Description of the product(s) including specifications relating to their physical, mechanical and chemical properties.
2. Uses of the product(s).

B. Manufactured Process

1. Description of the process showing detailed flow charts indicating material and energy requirements of each step, and the normal duration of the process.
2. Alternative processes considered and justification for adopting said process.
3. Technological assistance used and contracts, if any.

C. Plant Size and Production Schedule

1. Rated annual and daily capacity per shift, operating days per year, indicating factors used in determining capacity.
2. Expected production volume for the next five (5) years considering start-up and technical factors.

D. Machinery and Equipment

1. Machinery and equipment layout, indicating floor plan.
2. Specifications of the machinery and equipment required indicating rated capacity.
3. List of machinery and equipment to be purchased and origin as to local or imported.
4. Quotations from supplier, machinery guarantees, delivery dates, terms of payment and other arrangements.
5. Comparative analysis of alternative machinery and equipment in terms of cost, reliability, performance and spare parts available.

E. Plant Location

1. Location map showing plant location
2. Desirability of location in terms of distance from the source of raw materials and marks and other factors. Comparative study of different locations indicating advantage and disadvantage (if a new project).

F. Plant Layout

Description of plant layout, drawn to scale.

G. Building and Facilities

1. Types of building and costs of erection
2. Floor area involved
3. Land improvement such as roads, drainage, etc. and their respective costs

H. Raw Materials

1. Description and specifications relating to their physical, mechanical and chemical properties.
2. Current and prospective costs for raw materials; terms of payment and long term contracts, if any.

3. Availability, continuity of supply and current and prospective sources.
4. Materials balance or material process chart.

I. Utilities

Electricity, fuel, water, steam and supplies indicating the uses, quantity required, balance and utilities, availability, sources and tentative sources and costs.

J. Waste Disposal

1. Description and quantity of waste to be disposed of
2. Description of the waste disposal method
3. Methods used in other plants
4. Costs of waste disposal
5. Clearance from proper authorities or compliance with legal requirements.

K. Production Costs

Detailed breakdown of production costs, indicating the elements of cost per unit output.

L. Labor Requirements

Detailed breakdown of the direct and indirect labor and supervision required for the manufacture of the product(s) indicating compensations including fringe benefits.

IV. FINANCIAL FEASIBILITY

A. For Existing Projects

1. Audited financial statements (balance sheets, income statements, cash flow) for past three (3) years to reflect the following:
 - a. aging receivables
 - b. schedule of fixed assets showing capitalized cost, estimated useful life. and depreciation method used.
 - c. schedule of liabilities, tax assessments and other pending claims or litigations against the applicant, if any.
 - d. financial trends and ratio analysis

- e. elements of production, selling, administrative and financial expenses.
 2. Financial projections for the next five (5) years (income statement, cash flow, balance sheets).
 3. Supporting schedules to the financial projections, stating assumptions used as to:
 - a. collection period of sales
 - b. inventory levels
 - c. payment period of purchases and expenses
 - d. elements of production cost, selling, administrative and financial expenses.
 4. Financial analysis to show the rate of return on investment, return on equity, break-even volume and price analysis.
- B. For New Projects
1. Total project cost (fixed and working capital).
 2. Initial capital requirements.
 3. Pre-operating cash flows relative to the project time table.
 4. Financial projections for the five (5) years of operations to include balance sheets, income statements, cash flows.
 5. Supporting the schedules to the financial projections to include:
 - a. collection period of sales
 - b. inventory levels
 - c. payment period of purchases and expenses
 - d. elements of production cost, selling, administrative and financial expenses.
 6. Financial analysis showing return on investment, return on equity, break-even volume and price analysis.

APPENDIX 3

LIST OF FINANCIAL INSTITUTIONS

1. *In Bangladesh*

- . Bangladesh Small and Cottage Industries Corporation (BSCIC) for investment promotion, project identification, feasibility studies and arranging small industry loans.
- . Bangladesh Shilpa Bank
- . SONALI Bank
- . RUPALI Bank
- . AGRANI Bank
- . JANATA Bank
- . UTTARA Bank
- . PUBALI Bank
- . Bangladesh Krishi Bank
- . Investment Corporation of Bangladesh
- . International agencies such as UNDP, ESCAP, WB-IFC, ADB, USAID, SIDA, DANIDA and IDRC provide funds to the government for lending to small industries.

2. *In Fiji*

- . Fiji Development Bank
- . Fiji National Provident Fund
- . Fiji Development Company, a subsidiary of Commonwealth Development Corporation, insurance companies and commercial banks

3. *In Korea*

- . Medium and Small Industry Bank of Korea
- . Other commercial banks

4. *In Indonesia*
 - . Indonesian Bank (B.I.), government owned (Central Bank)
 - . Commercial banks owned by the government (BRI, BNI, BAPINDO, etc.)
 - . Indonesian Development Funds Corporation (UPPINDO)
 - . Indonesian Credit Insurance Corporation (ASKRINDO)
 - . Cooperative Credit Insurance Institute (LJKK)
 - . National Entrepreneurship Development Corporation (P.T. BAHANA)
5. *In Malaysia*
 - . Majlis Amanah Rakyat (MARA)
 - . Credit Guarantee Corporation (CGC)
 - . Development Bank of Malaysia
 - . Agricultural Bank of Malaysia
 - . Malaysian Industrial Development Finance (MIDF)
 - . Other commercial banks
6. *In Nepal*
 - . Nepal Industrial Development Corporation
 - . Agricultural Development Bank
 - . Rastriya Banijya Bank
 - . Nepal Bank Limited
7. *In the Philippines*
 - . Development Bank of the Philippines (DBP)
 - . Philippine National Bank (PNB)
 - . Private Development Corporation of the Philippines (PDCP)
 - . CB-Industrial Guarantee and Loan Fund (IGLF)
 - . CB-Investor's Guarantee Fund (IGF)

- . Ventures for Industries and Business Enterprises (VIBES)
- . Other commercial banks

8. *In Singapore*

- . Economic Development Board (EDB), Development Bank of Singapore (DBS) and the Overseas Chinese Banking Corporation (OCBC) created the Small Industries Finance Scheme (SIFS) provides working capital to existing viable projects.
- . Singapore Manufacturers Association (SMA)
- . Small Industries Development Programme

9. *In Sri Lanka*

- . National Development Bank of Sri Lanka (NADB) - This newly created bank assists small entrepreneurs in obtaining finance through five (5) commercial banks, namely: Bank of Ceylon, People's Bank, Commercial Bank Ltd., Hatton National Bank, and the Development Finance Corporation (DFC) under Small and Medium Industry (SMI) Loan Scheme. Loans are provided at low interest and on easy terms and repayment period extends up to 10 years with a grace period of up to 2 years.
- . Central Bank of Ceylon - Loans granted to the small and medium industries under the SMI, scheme are guaranteed by the Central Bank of Sri Lanka, on behalf of the government. Under this guarantee cover, Central Bank guarantees up to 75% of the loans granted.
- . Sri Lanka Export Credit Insurance Corporation (SLECIC). This corporation was created to help the exporters.

10. *In Thailand*

- . Department of Industrial Promotion (DIP) provides credit facilities through the Small Industries Finance Office (SIFO).
- . Other commercial banks

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TECHNONET ASIA is a cooperative grouping ("network") of 14 Participating Organizations in 11 Asian Pacific countries, which aims at improving the quality and efficiency of production in those countries' small and medium scale industrial enterprises. Particular emphasis is given to the application of knowledge concerning knowr. processes, methods, techniques, equipment, modifications and approaches to existing operations, effected by the transfer of technical information and provision of industrial extension services.

PARTICIPATING ORGANIZATIONS OF TECHNONET ASIA

BANGLADESH	Bangladesh Small and Cottage Industries Corporation (BSCIC)
FIJI	Fiji National Training Council (FNTC)
HONG KONG	The Hong Kong Productivity Centre (HKPC)
INDONESIA	BIPIK/Departemen Perindustrian (Ministry of Industry)
KOREA	Korea Scientific and Technological Information Center (KORSTIC) Small and Medium Industry Promotion Corporation (SMIPC)
MALAYSIA	Standards and Industrial Research Institute of Malaysia (SIRIM) Majlis Amanah Ra'ayat (MARA) (Council of Trust for Indigenous People)
NEPAL	Industrial Services Centre (ISC)
PHILIPPINES	Institute for Small-Scale Industries, University of the Philippines (UP ISSI) Economic Development Foundation (EDF)
SINGAPORE	Singapore Institute of Standards and Industrial Research (SISIR)
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