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THE P/C/I MODEL
FOR ASSESSING ORGANIZATIONAL VIABILITY

VOLUME III

A GUIDE FOR ASSESSING ORGANIZATIONAL VIABILITY

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PREFACE

More than 70 percent of the technical assistance projects undertaken by the Agency for International Development have an important "institution building" component.* Both the needs of development and the rhetoric of the donor community suggest that building institutions is an important way to leverage development investments. Out of this interest in institutions has grown a body of study and reasonably extensive literature** discussing ways in which one can create institutions and determine whether or not they are self-sufficient and viable.

This document presents the results of a PCI effort to focus "institutionality" concepts into practical and realistic guidance that can be used to assess "institutional viability."

Because as grantors and donors we are not always interested in establishing institutions per se, but frequently are concerned with the establishment of organizational units within institutions (for example, an economic policy unit within a Ministry of Finance), we have for the purposes of our analysis generalized our interest to that of "organizational viability."

The specific questions these guidelines will help you answer are:

1. When a new program is being undertaken, is a new organization capable of assuming the additional responsibility?
2. After a period of assistance, what are the areas of weakness requiring special attention?
3. Has the organization reached the point where it can operate effectively without outside help?
4. Given several similar institutions, in which should you invest to maximize benefit?

Because of the magnitude of the issue of organizational viability, and the consequent necessity to limit our analysis in some way, the guidance we provide in the enclosed is specifically aimed at health organizations. However, we are confident that with some re-work the same concepts can be readily extended to other forms of organizations.

We are confident that these guidelines can be of practical value to AID and other evaluators. However, we are still in the process of revising these concepts and both PCI and the sponsors of the original study (AID PPC) would be very interested to hear from you regarding these concepts, and particularly interested in hearing about your successes and failures in actually utilizing the concepts.

Leon J. Rosenberg
President
PCI (Practical Concepts Incorporated)

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* Per a 1973 study performed by PCI (Practical Concepts Incorporated).

** The bibliography on this subject appears in Institution Building: A Source Book; Blase, AID, 1973.

PCI's principal investigators for this work were Leon J. Rosenberg, Roger Popper, and Molly Hageboeck.

Individuals whose constructive criticism and advice greatly improved this manuscript include another PCI staff member, John David Garcia, and our colleagues at AID -- especially Messrs. Herbert Turner and Philip Sperling.

Our thanks also to Louie Stancari and Dianne Sachs, who edited and produced this series of reports.

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SECTION ONE
WHAT IS AN ORGANIZATION?

We approach the issue of viability via a two-step process:

1. Identifying the essential elements of an organization -- the fundamental characteristics that "define" an organization;

2. Defining viability as a homeostatic relationship between the organization and its environment such that the store of the essential substances are conserved or replenished.

This section of the guidelines deals with the first of the above issues -- identifying the essential or elemental characteristics of an organization -- the things which, given their existence, indicate that there is an organization, and without which there cannot be an organization.

After much analytical effort, some of which was undertaken under PCI rather than AID government sponsorship, PCI developed a simple and elegant model of "organizationness" such that an organization can be considered as having only three essential properties:

1. Image: subjective knowledge, on the part of those internal as well as external to the organization, as to what the organization is and does, and why it exists;

2. Connotation: the subjective assessment of those internal and external to the organization as to where they would place the organization's image and operations in their structure of personal beliefs and priorities;

3. Purchasables: funds and the things that have been or can be bought or purchased.

All things about an organization that are necessary for evaluating viability are subsumed under one or the other of the above three categories, as will be demonstrated later.

The order shown above is in fact a priority order. The "image" of the organization is its first and most essential property. Assuming a positive valuation of that image, money can be obtained for its operations and perpetuation. Purchasables may be a necessary, but never a sufficient, condition for defining an organization. In the simplest case, an organization can exist in the mind of a single man who, because he values it, will utilize his time (potentially purchasable with money) to make that organization grow and prosper. To provide a simple mnemonic, we have developed a convenient acronym that violates the priority order. Permuting the placement of Connotation and Image, we obtain P/C/I -- for Purchasables, Connotation and Image.

Image consists of two components -- frequently difficult to distinguish, but very different in essential character. The first of these components is, or should be fixed and unchanging over the life of the organization. This organizational doctrine establishes goals of the organization, its basic mission and its ethos and ethic*.

The second component of image is program -- the things that the organization actually does to sustain itself. Program is changeable and can be varied

---

* We use the term doctrine with special recognition of Anthony Jay's use of the term in his book "Management and Machiavelli".

within limits fixed by doctrine. The term program is used in a way quite similar to its general utilization, and to the slightly more specific utilization of the term by M. Esman.

If image is a vector showing a direction for the organization, then Connotation is the scalar that determines the extension of that vector in terms of subjective perceptions. Connotation is the value that people interral and external to the organization attribute to what the organization is and does. Connotation can be divided in the same way that Image can, into doctrine and program components.

The recognition that connotation must separately consider acceptance of both doctrine and program is of particular importance when assessing (probable) long-term productivity of staff. High "connotation" associated with program is a transient phenomenon. Dedication to and acceptance of doctrine is required if the organization is to be capable of long-term planning and adaptation. One can have high connotation relative to a program without being committed to the organization's overall doctrinal and ethical structure. Clearly an organization in such a state has less adaptability than does one for which the staff are motivated in terms of long-term doctrinal objectives, or the doctrinal component of image.

External to the organization, the issue of connotation is closely related to the economic issue of how much one's clientele is, or would be, willing to pay for the service provided by the organization or, in the event that the doctrinal image is clear to its clientele, how much they would pay to assist perpetuation of that doctrine.

"Program connotation" is then, for example, the amount of money patients should or would pay for a given treatment. "Doctrinal connotation" is the factor determining how much the elders will pay -- in land, money, etc. -- in order to have a hospital in the village. (This latter question is of particular interest in small-town hospitals in the U.S., where choices are frequently made to create non-economic units "because every town should have a hospital.")

Purchasables, of course, need little description here. Note, however, that people's time is something that can be bought with money and can be valued or costed, along with such other tangibles as physical plant, drug inventories, etc. However productivity, or the amount of human energy expended to advance the organization's mission, is a function of connotation and purchasables -- with the former being far the more significant factor.

There is clearly a convertibility among the three elemental dimensions of P/C/I. Purchasables can be used to create an image; connotation can and must be converted to purchasables, etc. This convertibility does not imply that these elements orthogonal or statistically independent.

SECTION TWO
THE CONCEPT OF ORGANIZATIONAL VIABILITY: PRESERVATION OF P/C/I

Having defined an organization in terms of its elemental and fundamental properties, we now define viability as the state of being that ensures preservation of those essential properties. An organization that has an image, purchasables, and connotation, exists. To the extent that we can guarantee continuation of its image, connotation, and replenishment of its purchasables, we are confident that it will continue to exist, or meet our general definition of viability.

An analogy is to liken the organization to a single-celled animal adrift in a sea of nutrients. Our organization is the single-celled animal. The sea of nutrients is the societal and economic context of the organization. The organism is viable if the nutrients it requires are available from its environment. It can and does freely exchange used up nutrients for fresh ones -- continuing an indefinite process in which there is a homeostatic relationship between the organism and its environment.

In much the same fashion, an organization must be in a relationship to its environment such that it is continually using its image, its connotation and purchasables, to create more purchasables, more image, and more connotation. To the extent that the sum of the interchanges between the organization and its environment are positive in each of the three dimensions, then it is a strong argument that our organization is viable.

An organization has a great advantage over a biological entity in determination of its viability. An organization can be reduced almost indefinitely in terms of physical facilities and number of individuals involved. It is not essential that it preserve its purchasables or its people in order to be viable -- it is essential only that it preserve enough image and enough connotation that it can, in the future, replenish its store of purchasables.

The issue then in assessing viability is the extent to which the organization will remain unchanged given the probable future of its environment. There are three basic approaches that we see to using the P/C/I model in this regard:

1. A balance sheet approach, inventorying the total connotation, image, and purchasables of the organization;

2. Examining all of the individual transactions engaged in by the organization to determine the net gain or loss in each transaction (of P, C, and I), and aggregating to see if there is a net gain or loss;

3. Examining only the externalities, or context, in which the organization fits, to determine whether or not the image of the organization will in fact generate money and is valued by its societal context, thus ensuring replenishment.

The last of these, which would resemble a conventional market study, can be considered to be a "balance sheet" approach, but applied externally to the organization.

The sections which follow explain and demonstrate measurement and interpretation procedures which correspond to #1 and #3 of the above list. These have been chosen as most applicable to the immediate needs of USAID officers.

SECTION THREE

ORGANIZATION BUILDING AND THE LOGICAL FRAMEWORK

In general, AID uses a results-oriented approach to management and evaluation which is codified in a management tool known as the Logical Framework (see "Project Evaluation Guidelines," AID, 1974). A good starting point for explaining PCI's techniques for measuring organizational strength is to show how the techniques fit in a Logical Framework.

A. EFFECTIVENESS VS. VIABILITY

Normal uses to which AID puts the Logical Framework are to plan effective solutions to problems, and assess the effectiveness of the solutions. However, AID not only wants to solve immediate problems, but also to build organizations that can solve problems over the long term without AID's help. Below is a list of some things organizations must do to solve problems on their own without outside help. The list is meant to be suggestive, not exhaustive.

1. Survive: Continue to exist;
2. Grow: Self-generate to match the size of problems, or to recover from trauma;
3. Adapt: Detect changes in problems and conditions, and alter operations to match the changes;
4. Innovate: Introduce change to solve problems.

PCI is using the word VIABLE to describe organizations which can do all of the above -- which can exist in a homeostatic relationship with the environment.

The obvious question is: Where does effectiveness fit in the above list? The answer is that it does not fit directly. Effectiveness means: Is an organization doing what AID wants it to do? For various organizations under various conditions, effectiveness may be:

1. Necessary to survival, because effectiveness provides access to vital resources;
2. Incompatible with survival, because effectiveness precludes those activities which would provide vital resources;
3. Dependent on adaptation, innovation or growth, because only by adapting, etc., can the organization obtain vital resources.

Because effectiveness is defined many ways, the relationship between effectiveness and viability (as we have defined it) is not stable and must be discovered empirically.

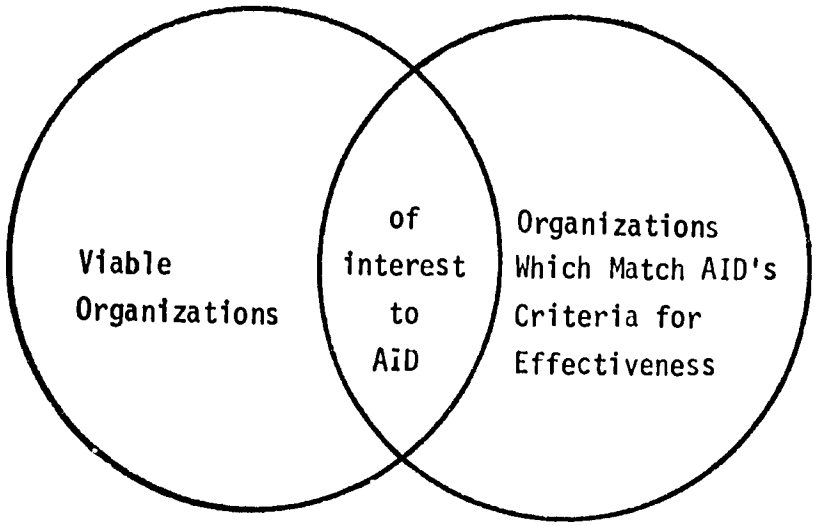
B. EFFECTIVENESS EVALUATION VS. VIABILITY EVALUATION

An invaluable service offered by the approach described here is discovery of the relationship between effectiveness, as AID defines it for a given organization, and that organization's viability. AID's efforts would undeniably be strengthened if it could avoid "effectivenesses" which doom organizations to dependency, and if it could find "effectiveness" which lead to self-sufficiency and viability. We are not suggesting a substitute for traditional "effectiveness" evaluation, but rather a complement to it.

Effectiveness evaluation imposes an external criterion, usually that of the sponsors, while viability evaluation, as we will explain, imposes no external criterion. We feel strongly that effectiveness is a poor starting point for measuring organizational viability, which is not to say that effectiveness and viability evaluation can not and should not be combined.

Most viable organizations are probably effective at something, since being effective, and being recognized as effective, is a primary source of internal connotation. Our tools will tell AID managers what it is the viable organizations are effective at, and it is up to AID to decide whether that "effectiveness" is acceptable or not.

In general:



C. GOAL MODEL VS. SYSTEMS MODEL

In Amitai Etzioni's* (among other people's) terms, effectiveness evaluation implies a goal model, and viability evaluation implies a systems model. Effectiveness evaluation, in general, studies and measures events in absolute terms (magnitudes, etc.). And viability evaluation studies and measures the events as filtered through human communications systems. Three human communications systems are: Economics, the Cognitive Domain, and the Affective Domain -- which correspond to purchasables, image, and connotation of the P/C/I Model.

---

* Amitai Etzioni, "Two Approaches to Organizational Analysis: A Critique and a Suggestion," Journal of Administrative Science, September, 1960, pp. 257 - 278.

D. INDICATORS OF ORGANIZATIONAL VIABILITY

1. Predictors vs. Direct Measures

The purpose of this guide is to provide tools, techniques, and indicators for measuring inherent strength and maturity of organizations. We have already listed some things organizations must do if they are to solve problems on their own over the long term. We have postulated that viable organizations are organizations that can: Survive, grow, adapt, and innovate. The list certainly implies some measurement techniques; however it implies a strategy of longitudinal, long-term measurement.

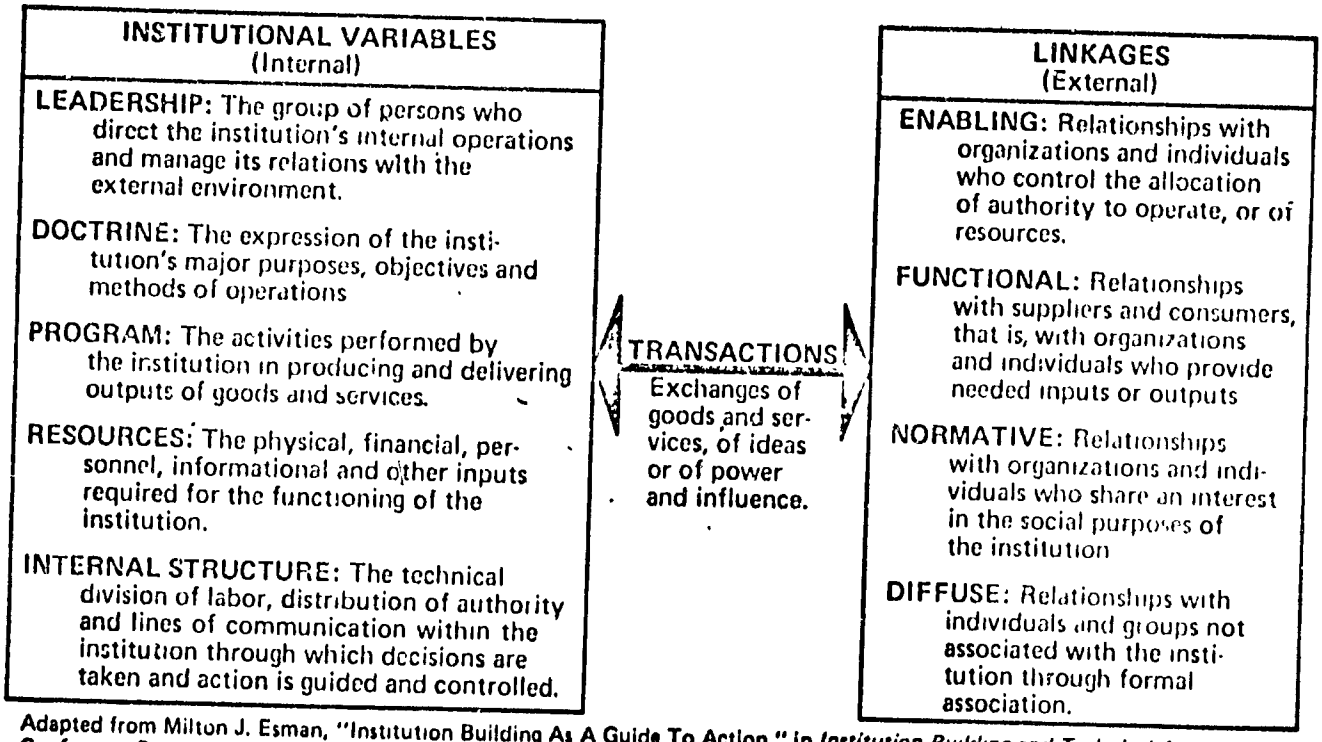
PCI has interpreted its task as development of evaluation techniques which can predict an organization's capacity to survive, grow, adapt, and innovate. An alternative would have been to develop direct longitudinal indicators of survival, growth, etc.; however we felt that such an approach was of little practical use. AID managers need quick, inexpensive-to-collect information about an organization's viability.

2. The Esman Concepts

Milton Esman has made a compelling case for the following list of ingredients as being essential to institutional strength: Leadership, Doctrine, Programs, Resources, Structure, and Linkages (see Figure III-1). However, a fair consensus seems to be that although the Esman concepts are a useful guide for institution building, techniques for measuring organizational strength are not easily derived from them. How, for example, do you objectively measure the quality of leadership?

FIGURE III-1

The Institution-Building Model



Adapted from Milton J. Esman, "Institution Building As A Guide To Action," in *Institution Building and Technical Assistance: Conference Proceedings.* Washington, D.C.: Committee on Institutional Cooperation and Agency for International Development.

The Esman concepts help tell you how to build a viable organization, but not how to assess whether you have built one. For example, they specify that leadership is needed, and they specify what leaders are supposed to do. But they do not tell us what to look for if we are to know if an organization is well-led. In Logical Framework terms, the Esman concepts operate at the Output Level, and what is needed are concepts and measures that operate at the Purpose Level.

3. Purpose Level Indicators of Viability

On the one hand we have concepts which tell what a viable organization <u>does</u> (Survive, Grow, Adapt, Innovate), and on the other

hand we have concepts which tell us the ingredients of a viable organization (Leadership, Doctrine, Programs, Resources, Structure, Linkages). What we need are concepts which split the difference between the two. We need concepts which tell what a viable organization is.

An analogy to a piece of cake may be helpful: We do not want to know what a cake does (gets eaten for dessert), nor do we want to know how to make a cake (put in flour, sugar, eggs, etc.). We do, however, want to know about the cake's texture, taste, and aroma so that we can predict whether it will be eaten for dessert, or end up in the garbage can. Many organizations have Leadership, Doctrine, Programs, Resources, Structure, and Linkages, but are still not viable. We want to describe organizations in a way that predicts survival, growth, adaptation, and innovation.

E. THE P/C/I MODEL

The concepts we have used to derive short-term, inexpensive-to-collect indicators of organizational viability are listed below. Together they comprise what we are calling the P/C/I (Purchasables, Connotation, Image) Model.

1. P/C/I Model Definitions

Purchasables: Buyables, objects, people's time, funds, etc.;

Connotation: The affective dimension of attitudes toward an organization. What value (positive or negative) do people attribute to what the organization is and does. The value attributed to an organization by people inside and outside it are important here;

Image: The cognitive dimension of what people think about an organization. What do they think it does for whom, how, and why, etc? What people both inside and outside an organization think it is and does are important here.

2. P/C/I Model Emphasis

The emphasis for Purchasables is on measuring endurance, an organization's capacity for subsistance without purchasables from external sources.

The emphasis for Image is on consensus, the extent to which the members of an organization perceive themselves, and are perceived, as a whole. A unified image distinguishes between groups of people in general, and those groups which have a common Doctrine.

Theorists about organizations agree that Doctrine is at once crucial and difficult to measure. (See pp. 13, and 72 of Conference on Institution Building and Technical Assistance, AID, 1969.) The P/C/I Model promises a breakthrough in Doctrine measurement by measuring it in the following ways:

- Those aspects of Image on which there is consensus
- Those aspects of Image where consensus is greatest at the center of the organization and weakest at the periphery (see Figures III-2, III-3, and III-4).
- Those aspects of Image from which the other aspects, the Program Image, are deriveable.

The emphasis for Connotation is on potential energy. Will people work hard for the organization, or expend energy (or resources) to avail themselves of its services because they value what the institution is and does? Connotation increases when:

a. An organization's image changes to match people's needs, desires, and preferences;
b. People's needs, desires, and preferences change to match an orgarization's image.

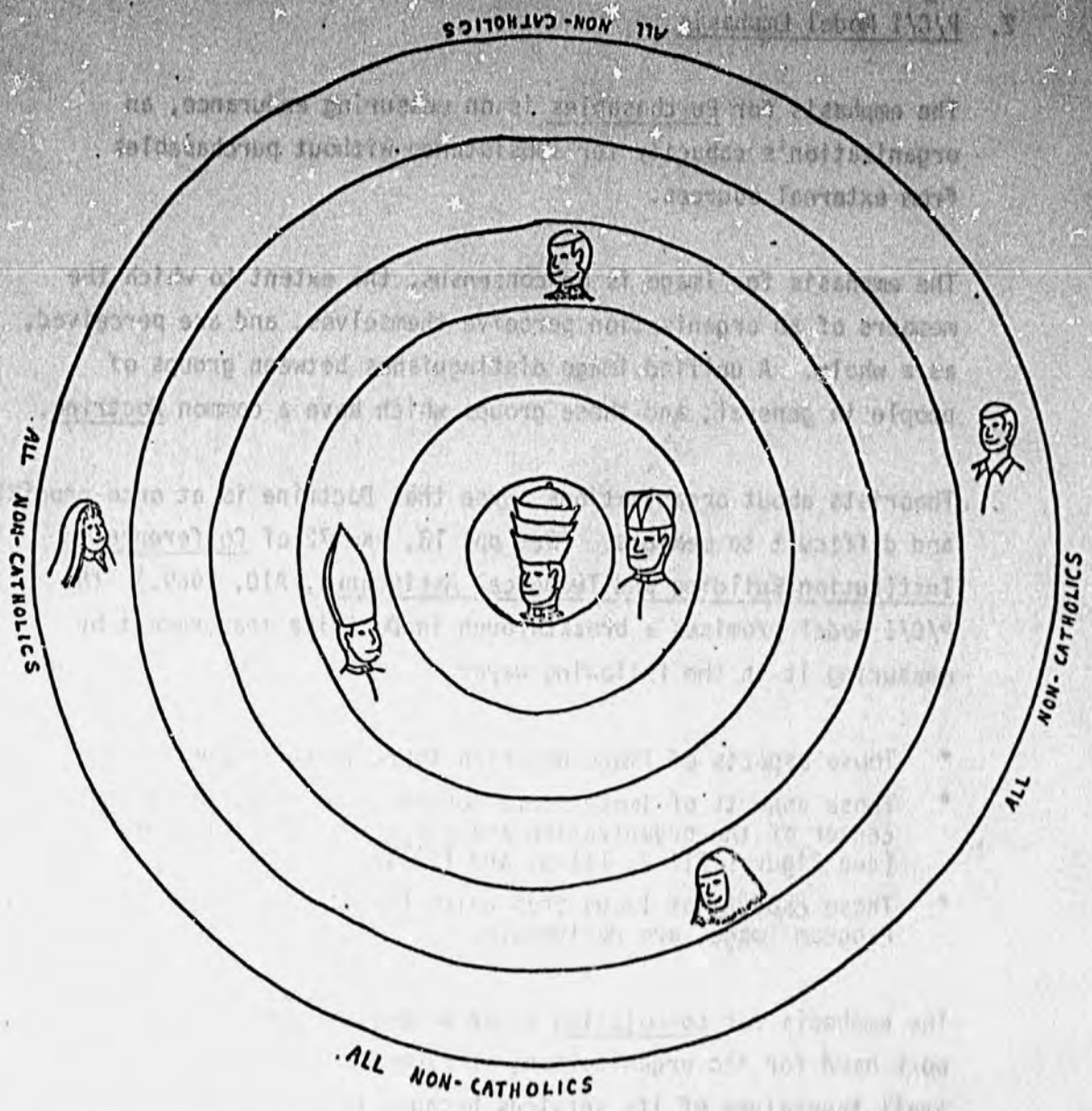


FIGURE III-2: The Catholic Church is an example of a well-led organization and a particularly good example of both (a) the importance of Image and (b) the separation of the doctrinal and programmatic components of image. The hierarchy of the church is explicitly built around understanding and acceptance of doctrine. Thus, the Pope, cardinals, and bishops have extremely high understanding of and (in our terms) "connotation" for doctrine -- the essential principles of Catholicism. Some of the laity may be more involved with (and have higher connotation for) program -- e.g., even such marginal programs as picnics and dances. And most of the adult world -- Catholic and non-Catholic and whether they "like" Catholicism or not -- have a reasonably clear "Image" of what Catholicism is.

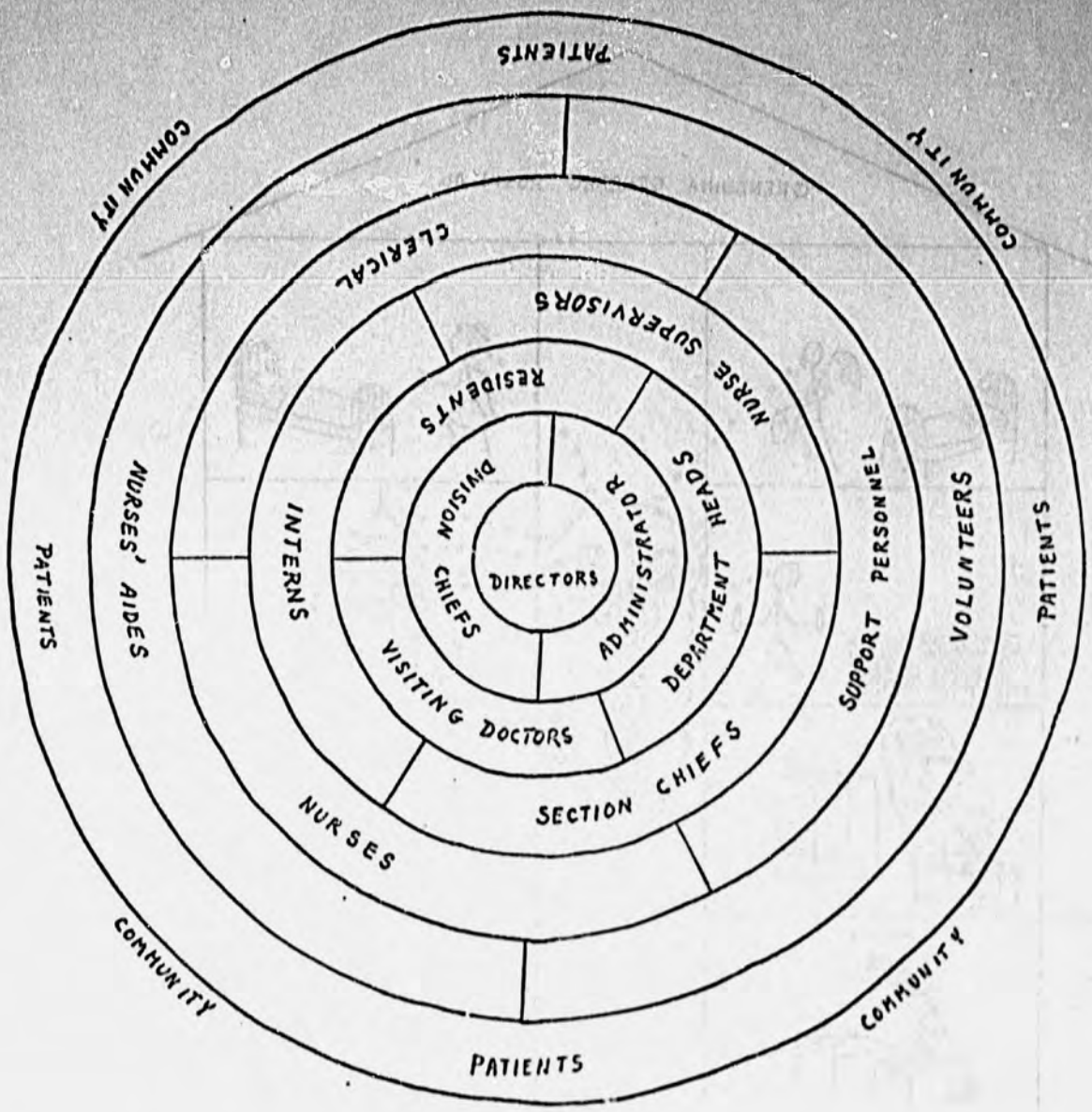


FIGURE III-3: For a hospital, its directors and top-level medical staff should be more clearly committed to such doctrinal concepts as "community health". The directors of a hospital, as representatives of the community at large, have an allegiance to the existence of the hospital per se. The "division chiefs" or heads of medical departments are committed to the continuation of the hospital insofar as it provides the best alternative for providing their services. Throughout the community, there is generally a clear "image" of the hospital, but differences regarding emphasis and valuation.

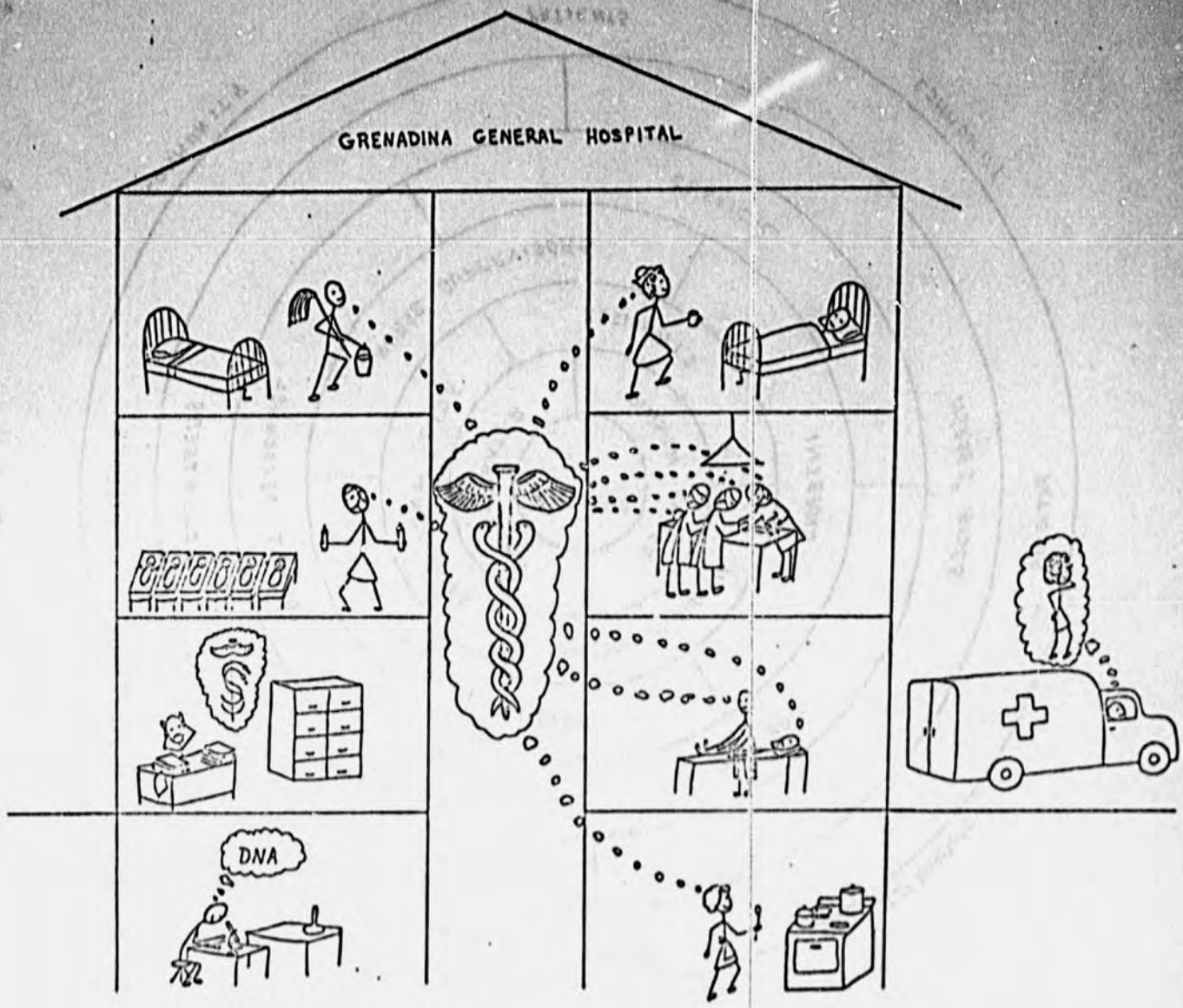


FIGURE III-4: Connotation for the different elements of the organizational image will vary widely throughout the hospital, based upon the needs and interests of individual members. Whereas the unifying element of the hospital is the provision of community medical service, individuals may value only specific programs within that image. The lab researcher may be interested only in getting more knowledge about DNA. The cost accountant may be dedicated only to the pursuit of his cost accountancy. In a well lead organization, each members would value things that the organization can actually provide him -- evidencing itself in high connotation for various elements of program and/or doctrine.

Additional emphasis is on measuring an organization's sensitivity to its own purchasables, image, and connotation. To be viable, an organization must not only have sufficient purchasables, connotation, and image, but it must also accurately sense them. For example, a Health Center whose image depends on giving innoculations, but thinks of innoculations as a sideline, may inadvertently put itself out of business by de-emphasizing innoculations. Sensitivity to its own purchasables, image and connotation are, of course, especially important during times of change.

3. Image Vs. Connotation

Image and connotation have been combined by other theorists (Esman's "Environmental Image" is an example). We chose to separate them for the following reasons:

a. They can vary independently. A cohesive Image can be accompanied by low connotation and vice versa;

b. They can, and indeed must, be measured separately. Whether people agree on what an organization is and does, and whether they approve of it present different measurement problems;

C. They present different management problems. A health center whose clients do not know it gives innoculations might profitably strengthen its innoculation program and publicize it. However, a health center whose clients know about its innoculation program but disapprove of it must either stop giving innoculations, or try to change client's values. Changing client's values is a different and generally more difficult task than merely publicizing an organization's activities.

Before we examine the P/C/I Model in detail, let's see where it fits in a Logical Framework.

F. EFFECTIVENESS/VIABILITY LOGICAL FRAMEWORK

1. Narrative

GOAL: Solution to a broad category of problems;

PURPOSE:

a. Viable organization that solves current, specified problems and will detect and solve future, only generally specified, problems;

OUTPUTS:

a. Magnitudes of production which suggest effective solution to current, specified problems;

b. Leadership, Doctrine, Programs, Resources, Internal Structure, Linkages;

INPUTS:

a. Activities directed at solving current, specified problems;

b. Organization building activities.

2. Objectively Verifiable Indicators of Organizational Viability

a. Long-Term, Expensive to Collect Indicators:

- Survival: Does it continue to exist?
- Adaptation: Does it adapt to changes in the environment to solve problems?
- Growth: Does it self-generate to match the size of problems, or recover from trauma?
- Innovation: Does it introduce change unilaterally to solve problems?

b. The P/C/I Model (Short-Term, Less-Expensive-To-Collect Indicators)

- Purchasables/Endurance
- Connotation/Potential Energy
  - Members
  - Clients
  - Sponsors

  3 Sources of Connotation
- Image/Consensus
  - Members
  - Clients
  - Sponsors

  3 Sources of Image
- Sensitivity to:
  - Purchasables
  - Connotation
  - Image

Table III-5 presents a partial Effectiveness/Viability Logical Framework for health care organizations. It shows the P/C/I Model relates to other evaluation possibilities.

Most evaluative effort is directed at the Output and Purpose levels. Evaluation at the Output level tells whether a project is running properly. And Purpose level evaluation tells whether a project has the desired effect.

In general, there are four evaluation possibilities at the Output and Purpose levels:

	Effectiveness	Viability
Purpose	1	2
Output	3	4

TABLE III-5

EFFECTIVENESS/VIABILITY LOGICAL FRAMEWORK FOR HEALTH ORGANIZATIONS

NARRATIVE	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION
GOAL: Solution to a broad category of health problems	Health, social welfare, and quality of life indices such as - life expectancy - infant mortality - morbidity rate	Long-term impact assessment
INTERIM GOAL: Current, specified health problems solved.	Incidence of current, specified health problems such as: - malnutrition - diptheria - malaria - polio	Short-term impact assessment
PURPOSE: Viable health organization that will detect and solve future, only generally specified health problems.	Purchasables/Endurance Connotation/Potential Energy Members Clients Sponsors Image/Consensus Members Clients Sponsors Sensitivity to: Purchasables Connotation Image	Short interviews with the members, clients, and sponsors of health organizations. Simple accounting
OUTPUTS: 1. EFFECTIVENESS: Magnitudes of health service production which suggest effective solution to current, specified health problems.	- # patients served - amount of medicine dispensed - hours of health education - etc.	Monitoring by project managers.
2. ORGANIZATION BUILDING: Leadership, Doctrine, Programs, Resources, Structure, Linkages.	Checklists, such as Thorson's "Institutional Profile" (Conference on Institution Building, AID, 1969).	Site visits by experts on health organizations.

NOTE: The heavy line highlights the P/C/I Model explained in this volume.

We feel that a promising combination of evaluation possibilities is the following:

	Effectiveness	Viability
Purpose		X
Output	X	

Later in this volume, where case studies are used to demonstrate the P/C/I Model, we will present partial Logical Frameworks with viability evaluation at the Purpose level and effectiveness evaluation at the Output level.

Table III-6 shows the partial Logical Framework for health centers in the imaginary land of Grenadina, with viability evaluation at the Purpose level and effectiveness evaluation at the Output level. Procedures and interpretation for Purpose level viability evaluation are the subject of the rest of this volume.

TABLE III-6

GRENADINA HEALTH CENTERS

NARRATIVE	OBJECTIVELY VERIFIABLE INDICATORS	TARGETS
GOAL: Improved health in rural Grenadina	- Life expectancy - Infant Mortality - Morbidity - Health indices	Not Measured Here
INTERIM GOAL: Current specified health problems solved: - pre-natal health - infant health	(determined by sponsors) - Still births - Miscarriages - Infant malnutrition - Incidence of diptheria and other childhood diseases	Not Measured Here
PURPOSE: A viable health organization that will detect and solve future only generally specified health problems.	Purchasables/Endurance = 1.7 Connotation/Potential Energy Members = 3.7 Clients = .7 Sponsors = 3.5 Image/Consensus Members = 18 Clients = 6 Sponsors = 14 Sensitivity: Member/Client Connotation = Match Image = .39	< 3 months > 3.0 > .5 > 3.0 > 10 < 10 > 10 = Match < .50
OUTPUTS: 1. EFFECTIVENESS: Magnitudes of health service production that suggest effective solution to pre-natal and infant health and mortality problems in rural Grenadina	2,028 patients served. 20,000 pints of milk given out 520 house visits by the sanitation inspector 30 Mothers Club meetings 480 interviews by the social worker 4,028 records started and maintained 193 people referred to the dentist 1,200 birth control pills dispensed 190 pregnant women given pre-natal care & instructions 320 family planning devices given out $1,850 drugs dispensed $180 educational supplies (family planning literature) handed out	(determined by Sponsors) < 4,000 - = 20,000 + > 500 + > 25 + > 400 + < 5,000 - < 200 - < 4,000 - < 200 - > 300 + < $2,000 - > $150 +
2. ORGANIZATION BUILDING: Leadership, Doctrine, Programs, Resources, Structure, Linkages.	Check lists such as Thorson's "Institutional Profile" (Conference on Institution Building, AID, 1969)	Not Measured Here

NOTE: The heavy line highlights the evaluation possibilities suggested here.

SECTION FOUR

DYNAMIC CHARACTERISTICS OF THE P/C/I MODEL

A. P/C/I FOCUSES ON LEADERSHIP

P/C/I focuses attention precisely on those features that distinguish between well and poorly led organizations, such as:

- Management of Purchasable resources to adapt to changes, and recover from trauma;
- Consensus on what the organization is and does (Image);
- Provision of demanded services and meaningful work experiences (Connotation);
- Sensitivity to changes in internal and external P, C, and I.
- Correspondence of Programs to Doctrine.

B. USE OF PURCHASABLES ANALOGY FOR NON-PURCHASABLE RESOURCES

As external Purchasables from clients, sponsors, and suppliers, etc., become internal Purchasables, external Image and Connotation tend to become internal Image and Connotation. Members of an organization tend to think about and value their organization the way clients and sponsors, etc., think about and value it.

And as Purchasables are obtained through transactions, Image and Connotation are obtained through transactions. As there are identifiable, discrete instances where an organization's Purchasables are obtained and spent, there are also identifiable, discrete instances where an organization's Image and Connotation are obtained and spent.

As an organization depends on valid Purchasable transactions, it also depends on valid Image and Connotation transactions. A valid transaction is one where more resources are obtained than spent.

C. PURCHASABLES, IMAGE AND CONNOTATION ARE INTER-RELATED

1. Purchasables and Image

An organization's technical capacity is a function of Purchasables (objects, people's time, funds, etc.) and how it is managed. An organization's technical and professional reputation are an important part of its Image (what does it do, how, etc.). Therefore, image can be shaped by purchasables and how they are managed.

2. Image and Connotation

In general, we expect Image and Connotation to vary together. However, it is possible for an organization to have strong Image but weak Connotation (everyone agrees on what the organization is and does, but they don't value it). And it is also possible for an organization to have weak Image and high Connotation (everyone has different ideas about what the organization is and does, but they all feel their version has value).

3. Purchasables and Connotation

Purchasables tend to be a function of past Connotation. An organization which has been valued by members, clients, and sponsors in the past will normally have lots of Purchasable resources. The relation between Purchasables and Connotation can best be described using what economists call "indifference curves." We mean here that Purchasables and an organization's Connotation both combine to produce human energy. Example: A low-valued organization must pay workers more than a high-valued organization for the same amount of work. An indifference curve is comprised of all combinations of Purchasables and Connotation which produce

the same amount of work, or the same expenditure of energy and money by clients.

D. IS P/C/I POTENTIALLY A MANAGEMENT TOOL?

In particular, does P/C/I show promise of answering AID's questions about inherent strength and maturity of organizations? For example:

1. When a new program is being undertaken, is a new organization capable of assuming additional responsibility?
2. After a period of assistance, what are the areas of weakness requiring special attention?
3. Has the organization reached the point where it can operate effectively without outside help.

If P/C/I is potentially a useful management tool, then different permutations of strength and weakness on Purchasables, Image, and Connotation should lead to different answers to questions of the type listed above. In the simple examples listed below, + denotes strength, and - denotes weakness. The list has two purposes. First, it shows that different permutations do indeed imply different, useful answers to questions about organization building. And second, it gives readers a chance to test their understanding of the P/C/I Model as it has been presented so far. Readers who understand why the +, - permutations on the left imply the comments on the right are well on their way to becoming P/C/I experts.

STATUS	COMMENT
P/C/I	
1. - + +	Untapped markets. Borrow money, buy programs.
2. + - +	The market has dried up. People don't like what you're selling any more.

STATUS	
P/C/I	
3.- - +	Don Quixote Organizations: You are going about the wrong business well.
4.+ + -	Individuals are homeostatic, and don't need to share. A non-organization.
5.- + -	Would profit from an organization building effort. Find out how members can share connotation and image.
6. + - -	Disintegration. How did they get purchasables in the first place?

It will become almost immediately obvious, as you read on, that the above examples are over-simplifications. For one thing, no distinction is made between internal and external P, C, and I. However, the examples do show that the P/C/I approach has potential for practical use.

SECTION FIVE

THE EVALUATION SEQUENCE: AN OVERVIEW

The purpose of this section is to give an overview to the P/C/I approach to evaluating organizational viability before diving into the detail. The evaluative sequence has two primary components: Measurement, Interpretation.

A. Measurement

P/C/I measurement activity is divided into three steps:

- Identification -- in Logical Framework terms -- of objectively verifiable indicators and means of verification for the P/C/I characteristics;
- Use of P/C/I Measurement Tools for data collection and analysis;
- Summarization of the analyzed data in a 9 cell Balance Sheet.

B. Interpretation

Following preparation of the balance sheet, the data on an organization is subjected to a three step interpretation process:

- Interpretation of the balance sheet using P/C/I Interpretation Matrices;
- Preparation of an Organizational Viability Status Report;
- Extrapolation from the Status Report of answers to specific project related questions, such as:

  1. When a new program is being undertaken, is a new organization capable of assuming additional responsibility?
  2. After a period of assistance, what are the areas of weakness requiring special attention?
  3. Has the organization reached the point where it can operate effectively without outside help?

The rest of this section is devoted to overview description of the six steps listed above (three for measurement and three for interpretation). Demonstration and detailed explanation come later.

A. MEASUREMENT

Step One: Purpose Level Horizontal Logic

The specification of objectively verifiable indicators, and means of verification for P, C, and I, follow the horizontal logic of AID's Logical Framework system. The reader will recall that in the opening chapters of this volume it was noted that "viable organizations" are normally purpose level objectives in AID projects. Thus the logic of measuring viability proceeds laterally at the purpose level.

Table V-1 shows the purpose level horizontal logic for viability assessment superimposed on a standard AID Logical Framework form. And Tables V-2, V-3, and V-4 show the Objectively Verifiable Indicators and Means of Verification for Purchasables, Connotation, and Image.

Note that measurement emphasis is on:

- Purchasables: Endurance;
- Connotation: Perceived value and potential energy;
- Image: Consensus;
- Organizational Sensitivity to P, C, and I.

We consider our end-of-project status in terms of: Indicator, Measure and Data Source:

- Indicator: The parameter of interest; the characteristic we wish to measure;
- Measure: The scale against which indicator status is assessed; an Indicator "thermometer;"
- Data Source: Records that must be consulted and people that must be interviewed to perform viability assessment.

TABLE V-1

P/C/I HORIZONTAL LOGIC ON THE LOGICAL FRAMEWORK

DEVELOPMENT HYPOTHESES

MANAGEABLE INTEREST

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
Program Goal. The broader objective to which this project contributes:	Measures of Goal Achievement		Concerning long term value of program/project:
Project Purpose: Viable organization	Conditions that will indicate purpose has been achieved: End of project status.		Affecting purpose-to-goal link:
Outputs:	Magnitude of Outputs necessary and sufficient to achieve purpose		Affecting output-to-purpose link:
Inputs: Activities and Types of Resources	Level of Effort/Expenditure for each activity.		Affecting input-to-output link:

If Purpose, Then Goal

If Outputs, Then Purpose

If Inputs, Then Outputs

	INDICATOR	MEASURE	DATA SOURCE
Purchasables			
Connotation			
Image			

TABLE V-2

ORGANIZATIONAL VIABILITY

PURPOSE LEVEL / HORIZONTAL LOGIC

PURCHASABLES

OBJECTIVELY VERIFIABLE INDICATORS			MEANS OF VERIFICATIO
INDICATOR	MEASURE	DATA SOURCE	
Endurance	The length of time the organization could exist without new money, income or subsidy, from external sources.	Financial records, inventory, leadership	Audit and interview
Organizational Sensitivity to Purchasables	Frequency and accuracy of income and expense projections	Financial records, inventory, leadership	Audit and interview

TABLE V-3

ORGANIZATIONAL VIABILITY

PURPOSE LEVEL / HORIZONTAL LOGIC

IMAGE

OBJECTIVELY VERIFIABLE INDICATORS			MEANS OF VERIFICATIO
INDICATOR	MEASURE	DATA SOURCE	
Consensus	The extent to which people believe the same things about what an organization is and does	Members Clients Sponsors Suppliers and Complemcnts	Short interview or questionnaire
Organizational Sensitivity to Image *	Agreement of Leaders and Members with Clients on what the Organization is and does Accuracy of Leaders and Members at predicting what Clients think the organization is and does	Members Clients Sponsors Suppliers and Complements	Short interview or questionnaire

*The logic here is that if an organization's leaders and members are sensitive to what clients think of the organization then:

- They agree with the clients, or
- They are aware of differences between internal and external Images of the Organization.

TABLE V-4

ORGANIZATIONAL VIABILITY

PURPOSE LEVEL / HORIZONTAL LOGIC

CONNOTATION

OBJECTIVELY VERIFIABLE INDICATORS			MEANS OF VERIFICATION
INDICATOR	MEASURE	DATA SOURCE	
Perceived Value of the Organization	Leader and member estimates of the likelihood that organization employees would leave their jobs under various conditions described later	Leaders and Members	Short interview or questionnaire
	Sponsor, supplier, and other complement estimates of the likelihood that people would stop using the organization under various conditions described later	Sponsors, Suppliers, and other Complements	Short interview or questionnaire
	Overlap of what clients think the organization should be doing with what they think it is doing	Potential clients	Short interview or questionnaire
Organizational Sensitivity to Connotation	Do Leaders and Members feel their efforts are appreciated by their clients?	Leaders and Members Sponsors, Suppliers, and Other Complements	Short Interview or questionnaire
	Are their perceptions accurate?	Potential Clients	

The relationship between the Indicator and Measure columns of Tables V-2, V-3, and V-4 should be studied carefully.

Measurement Step Two:

In this overview examination of the Viability Evaluation Sequence it is sufficient to only list the categories of P/C/I Measurement Tools, since entire sections of this report are devoted to the tools later. Categories of P/C/I Measurement Tools are:

1. A taxonomy of the data sources listed in the Data Source columns of Tables V-2, V-3, and V-4;
2. Questionnaire/Interview items corresponding to the Means of Verification columns of Tables V-2, V-3, and V-4;
3. Formulae for making the computations required by the Measures columns of Tables V-2, V-3, and V-4.

Measurement Step Three:

The measures produced by Measurement Steps One and Two are entered in a nine-cell matrix we are calling the P/C/I Balance Sheet. The general form for the Balance Sheet is presented below, and in Table V-5, the cell entries are described. Table V-5 bears careful study.

THE P/C/I BALANCE SHEET

	Purchasable	Connotation	Image
Interal			
External			
Sensitivity			

TABLE V-5

P/C/I BALANCE SHEET

	Purchasables	Connotation	Image
INTERNAL	- Cash on Hand - Monthly Salaries	Value associated with Internal Image.	Amount of consensus among leaders, members, etc. on what the organization is and does, etc.
EXTERNAL	- Receivables - Firm Backlog - Monthly Expenses for supplies, rent, other bills	Value associated with External Image.	Amounts of consensus among clients, among sponsors, etc. on what the organization is and does.
ORGANIZATION'S	- Endurance: The length of time the organization could exist without Purchasables from external sources.	- Do leaders and members feel their efforts are appreciated by clients? - Is their perception accurate?	- Amount of Internal/External agreement on what the organization is and does, etc. - Internal accuracy at predicting what clients, sponsors, etc. think the organization is and does, etc.

It may be possible to disaggregate to capital and operating purchasables, connotation, and image. Capital P, C, and I are not tied to specific programs the way operating P, C, and I are.

- Capital Image = Doctrine, and Operating Image = Programs.
- Capital Connotation = Value associated with Doctrine, and Operating Connotation = Value associated with Programs.

In general, a viable organization has operating and capital P. C. and I in balanced amounts.

B. INTERPRETATION.

Step One: Data Interpretation Matrices

The purpose of data interpretation matrices is to translate from data presented in the P/C/I Balance Sheet to statements which lead to management strategies. There are three matrices addressing:

- The organization's current position in the client environment;
- A short-term prognosis: Is productivity on the up-swing or down-swing?
- A long-term viability prognosis.

The matrices deal with permutations of P, C, and I strength and weakness in a way similar to that presented in preliminary form on pages IV 3 and 4.

The form of the matrices are such that once a balance sheet has been prepared, a project manager need only scan the matrices to find the set of conditions his balance sheet discusses, and the appropriate interpretation of his organization's position: All possible sets of conditions are pre-identified and interpreted in the matrices.

An entire section later in this report is devoted to the Interpretation Matrices and their use.

Interpretation Step Two: Organizational Viability Status Report

The second step in the interpretation process is the preparation of a status report on the organization being evaluated. The report consists in large part, of entries read off appropriate sections of the Interpretation Matrices. The structure of the report is shown in Table V-6.

Interpretation Step Three: Resolution of Basic Issues Concerning the Project

The final step in the interpretation sequence requires that the project manager utilize his status report to extrapolate to answers to specific questions he, the Mission, the host country or AID/W have raised concerning the viability of the organization under review. This final step should be the easiest, given a careful P/C/I assessment.

TABLE V-6

ORGANIZATIONAL VIABILITY STATUS REPORT
ACCESS TO PURCHASABLES
1. Capacity for subsistence without purchasables from external sources;
2. Linkage Strength: Prospects for future funding, etc.;
ACCESS TO CONNOTATION AND IMAGE
3. Current position in the client environment. (How would the organization be faring if the clients were the sponsors?)
4. Over the short-term, is #3 on the up-swing or down-swing?
5. Long-term viability;
STRATEGIES FOR INCREASING CONNOTATION AND IMAGE
6. Areas where the organization can be trusted with new responsibilities;
7. Areas of opportunity;
8. Problem areas.

SECTION SIX

MEASUREMENT TOOLS

The purpose of the Measurement Tools section is to present a comprehensive "tool kit" for measuring Purchasables, Connotation, and Image, with a minimum of explanation. After reading this segment of the guide, you will have a good idea of the operations required by the P/C/I Model, but you will still have questions about the details. Details of how to perform the operations described here, and details of why they are required are covered in the sections following this catalog of Measurement Tools.

The categories of Measurement Tools are:

A. Taxonomy of Data Sources;
B. Questionnaire/Interview Items;
C. Accounting Procedures;
D. Computation Formulae.
E. Organizational Viability Balance Sheet

Wherever sample data is required in the presentation of measurement tools, we use data which we generated for a network of health centers in a small, imaginary Latin American country called Grenadina. The data is based on first-hand knowledge of how health centers work, but corresponds to no particular real situation.

A. TAXONOMY OF DATA SOURCES

A. MEASUREMENT TOOLS: TAXONOMY OF DATA SOURCES

In this section we will answer the question: Whom do you interview to perform viability assessment? The purpose of the Taxonomy of Data Sources is to help managers and evaluators identify the important sectors of an organization's human environment.

The best way to introduce the Taxonomy is to give a simple example.

The example below is for a network of health centers in the small, inaginary Latin American country of Grenadina.

TAXONOMY OF DATA SOURCES FOR GRENADINA HEALTH CENTERS

Key Data Sources	Leaders:	Doctors at Health Centers, Nurses;
	Members:	Nurses, Lab Technicians, Social Workers, Sanitation Inspectors;
	Clients:	Potential Patients;
	Sponsors:	Ministry of Health, AID
Supplementary Data Sources	Complements:	Central medicine supply, medical schools and medical students, nursing schools and nursing students, Mayor, Priest, local doctors, local pharmacists.
	Competitors:	Hospitals, local doctors, Priest, pharmacists, work health programs, social security, veteran's benefit programs.

Comments on the Taxonomy of Data Sources for Grenadina Health Centers:

- Leaders and Members are internal data sources, and the rest are external data sources;
- Who is a Leader and who is a Member is not always clear, as is shown by the inclusion of "nurses" under both categories;

- Clients are the primary external sources of an organization's Image and Connotation; and Sponsors are the primary external sources of an organization's Purchasables. A health center nurse, for example, derives her sense of what she is doing and what it is worth from contact with her patients (Clients). However, the primary source of her Purchasables are the Ministry of Health and AID;

- In a free market situation, Clients and Sponsors are the same people. In a free market situation, clients buy their own services, rather than relying on sponsors to buy services for them;

- The external human environment of an organization can be ranged along a scale from "Complement" to "Competitor." Complements contribute Purchasables, Connotation, or Image to the organization, and Competitors usurp it. (An explanation which may or may not add clarity: Complements share an organization's programs, but not its doctrine, and Competitors share an organization's doctrine, but not its programs.);

- Note that "Priest" is listed as a Complement and also as a Competitor. He is a Complement because by supporting Health Centers he can confer Connotation, which is a resource in the same sense that medicines are. And he is a Competitor because, in theory at least, people may turn to him for the same services offered by Health Centers;

- Only a very thorough evaluation would survey all the people listed in the Grenadina Taxonomy. Leaders, Members, Clients, and Sponsors are probably sufficient in most cases;

- The important sectors of an organization's human environment are not always as easy to identify as they are for Grenadina Health Centers. The Taxonomy of Data Sources' usefulness increases with the complexity and ambiguity of anorganization's human environment.

B. QUESTIONNAIRES/INTERVIEW ITEMS

B. MEASUREMENT TOOLS: QUESTIONNAIRE/INTERVIEW ITEMS

The questionnaire/interview items presented here correspond to the "Means of Verification" column of the Image and Connotation horizontal logics. The item categories are:

1. Items for eliciting Image;
2. Items for eliciting internal sensitivity to external Image;
3. Items for eliciting internal Connotation;
4. Items for eliciting external Connotation;
5. Items for eliciting internal sensitivity to external Connotation.

1. Items for Eliciting Image

The questions below are asked of an organization's leaders, members, clients, sponsors, etc., in open-end fashion. The purpose is to elicit those words, phrases, and concepts which come to mind readily when the topic for consideration is the organization we are studying.

Doctrine answers to the questions are:

- Those aspects of Image on which there is consensus.
- Those aspects of Image where consensus is greatest at the center of the organization and weakest at the periphery. (See Figures III-2, III-3 and III-4.)
- Those aspects of Image from which the other aspects, the Program Image, can be derived.

Questions #3, #4, and #12 are particularly likely to receive Doctrine answers, although any of the questions can elicit Doctrine.

1. What does the organization do?
2. Anything else?
3. What is the purpose of the organization?
4. Why do they do what they do?
5. Under what conditions do people make use of the organization?
6. What kinds of people make use of the organization?
7. What kinds of people work at the organization?
8. What facilities does the organization have?
9. What is it like at the organization?
10. Where does the organization's purchasables come from?
11. What do they have to do to get their purchasables?
12. What else might the health centers do that they are not doing now?

2. Items for Eliciting Sensitivity to Image

To elicit data on an organization's sensitivity to its external image, we ask leaders and members to answer the Image question from the client's point of view.

To do this we preface the above list with this question:

"How do you think clients would answer the following questions:"

This approach is probably only appropriate for organizations where the number of members is sufficient to allow us to split the members population into randomly chosen halves. The procedure is to ask one half of the leaders and members how they would answer the Image questions, and to ask the other half to tell us how clients would answer these questions. (Our approach for analyzing this data is treated later.)

3. Items for Eliciting Internal Connotation

To elicit Internal Connotation we ask leaders and members to tell us the general probability that leaders and members in organizations like theirs would leave it for a slight increase in benefits.

The logic is that if general opinion holds that leaders and members in similar organizations would leave for a marginal increase in benefits, then connotation in the organization we are studying must be low.

Question format:

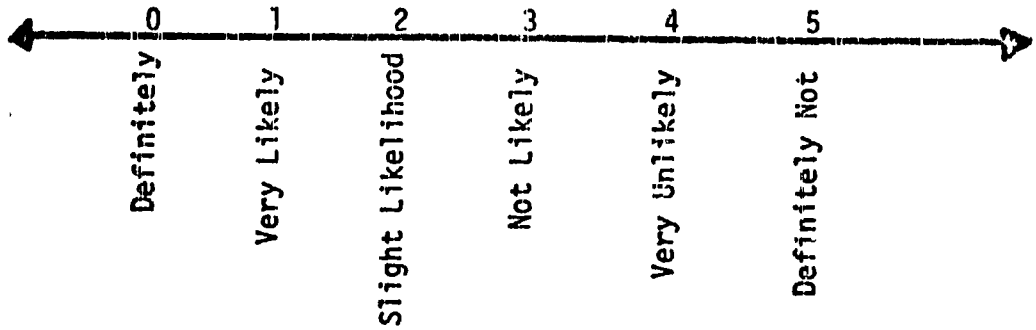
"If it were possible to do so, how likely would the Xs be to leave their jobs in health centers similar to yours for a small increase in Y?"

The procedure is to have all members and leaders fill out the matrix below.

MATRIX FOR COLLECTING CONNOTATION DATA

X \ Y: Areas of Interest Concerning Connotation(Y)	Pay	Professional Freedom	Status	Friendliness of Co-Workers
Doctors				
Nurses				
Lab Technicians				
Social Workers				
Sanitation Workers				

. The answers given by respondents are scored on the following scale:



The total matrix includes 20 questions.

4. Items for Eliciting External Connotation

The problem to be surmounted in eliciting external Connotation is that people generally tell you what they think you want to hear when you ask them if they value or like something.

PCI has developed a procedure which solves the above problem. The procedure is to split groups (clients, sponsors, etc.) into randomly chosen halves, and ask one half what the organization is and does, and ask the other half what such an organization "should" be and do. Tell the "should" group you need ideas for a health center in a village (city, etc.) similar to theirs.

Our measure of external Connotation is the overlap between "do" and "should" answers. Assumptions behind the Do/Should Overlap approach are:

- "Should" answers describe an organization (health center) people would value if it existed;
- "Should" answers include valued aspects of existing organizations the people have contact with.

To elicit data concerning what an organization should do, we use the following questions:

1. In your opinion, what <u>should</u> a local health center do?
2. Anything else?
3. What <u>should</u> the purpose of a local health center be?
4. Why <u>should</u> a health center do what you say it should?
5. Under what conditions <u>should</u> people be able to make use of a local health center?
6. What kinds of people <u>should</u> be able to use a local health center?
7. What kinds of people <u>should</u> work in a local health center?
8. What facilities <u>should</u> a local health center have?
9. What <u>should</u> it be like at a local health center?
10. Where <u>should</u> a local health center's money come from?
11. What <u>should</u> a local health center have to do to earn its money?
12. What else might a local health center do?

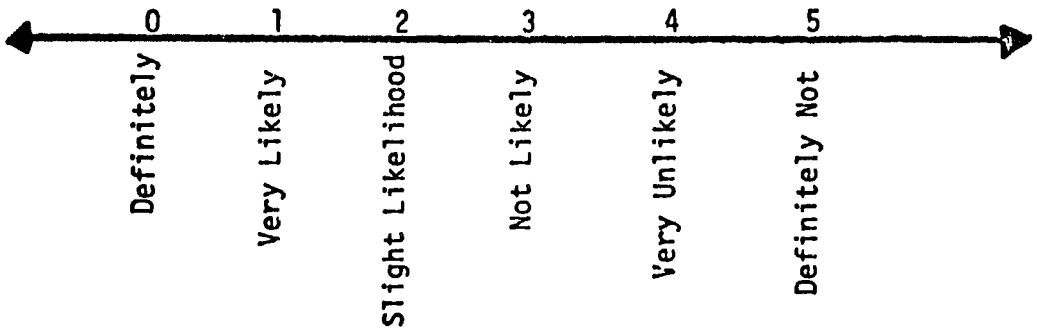
5. <u>Items for Eliciting External</u> Connotation From Small Groups

There are usually not enough sponsors, suppliers, or other complements to allow splitting into random halves for the Do/Should Overlap procedure described for clients. An alternative is to ask sponsors and suppliers, etc., a series of questions of the following type:

> "In general, how likely would people be to stop using (organization X) for (service Y) if (service Y) were <u>slightly</u> more expensive?"

To define service Y, fill in the common sponsor or supplier answers to the Image questions (What does the organization do? etc.). Note that the concept of "more expensive" may have to be adapted to local situations. For example -- "would you still come to the clinic if it is required that you walk another half mile?" Or, "would you continue to provide free drugs to the hospital if you had to bear the cost of storage as well?"

The answers given by respondents are then scored on the following scale:



The logic used to assess the data is that if opinion holds that a marginal increase in fees charged for services would reduce business substantially, then Connotation must be low.

Sponsor and supplier Connotation are likely to be complex. An adjunct to the above approach is to have sponsors, suppliers and other complements answer the questions for internal Connotation already described. If the sponsors, etc., perceive the organization's employees as likely to leave for marginal increases in pay, professional freedom, etc., they do not attribute much worth to the organization.

6. Items for Eliciting Internal Sensitivity to External Connotation

The crucial issue here is whether members feel their efforts are appreciated by the clients. Internal Connotation, and therefore an organization's viability, depends ultimately on external Connotation and internal perceptions of it.

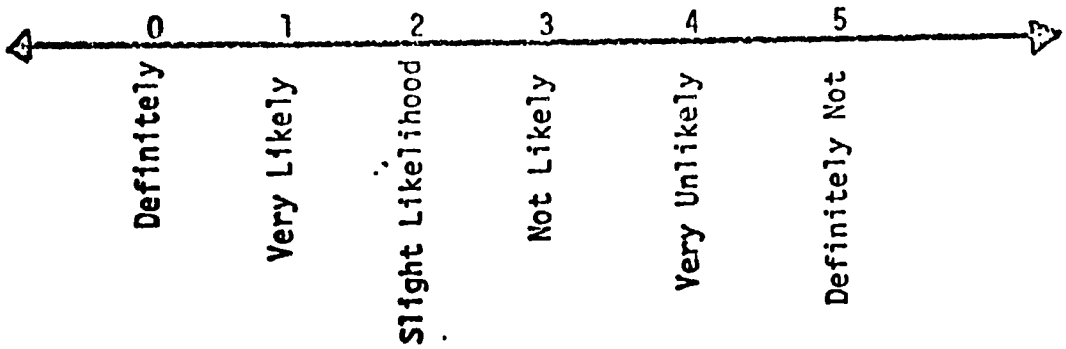
In some situations it may be sufficient to simply ask members whether their efforts are appreciated by their clients. And other situations may require a non-reactive approach.

One way to elicit internal perceptions of external Connotation in non-reactive fashion is to ask questions of the following type:

"In general, how likely would people be to stop using (organization X) for (service Y) if (service Y) were <u>slightly</u> more expensive?"

Here service is derived from common client answers to the Image questions (What does the organization do? etc.).

Again, answers are scored using the basic scale:



C. ACCOUNTING PROCEDURES

C. MEASUREMENT TOOLS: ACCOUNTING PROCEDURES

In this section we will outline the data collection procedures required by the Purchasables component of the P/C/I Model. The procedures correspond to the "Means of Verification" column of the Purchasables Horizontal Logic (Table V-2).

Purchasables data breaks down into a four cell matrix.

	ASSETS	LIABILITIES
INTERNAL		
EXTERNAL		

The best way to show what goes in the four cells is to give an example and then discuss it.

Table VI-1 is an Assets and Liabilities Work Sheet for a network of health centers in the small, imaginary Latin American country of Grenadina. All of the figures are averages for a random sample of 10 health centers. You will notice that, in general, the information recorded is no different from that collected by accountants. Exceptions are the entries marked with asterisks.

- * = Market value of staff time, and
- ** = Average market worth of service rendered to a client.

We have made the simplifying assumption that market value of staff time equals the amount they are paid. There may be better ways to assess this "non-capital asset;" however our solution serves the purposes of the P/C/I Model.

TABLE VI-1

PROJECT: Grenadina Health Centers

DATE: October 1, 1974

SUMMARY WORKSHEET ON PURCHASABLES: ASSETS & LIABILITIES

	ASSETS		LIABILITIES	
INTERNAL	On Hand = Bank Account & Petty Cash	$ 650	Salaries	$ 1,125
	Capital Assets		Salaries in arears (.25 X 13,500)	3,375
	Land & Building	10,200		
	Vehicles (jeep shared w/other centers (1/3)	1,000		
	Equipment (owned - $3K; shared - 1/3 of $6K)	5,000		
	Non-Capital Assets			
	Drugs on hand	1,137		
	Medical Supplies	150		
	Educational Supplies (Family Planning)	75		
	Other Supplies	180		
	Market Value of Staff Time	1,125 (per month)		
EXTERNAL	Receivable		Outright Subsidized Services (1000 patients judged unable to pay $1 fee)	1,000($x)**
	50% of $1,028 outstanding patient fees (Last year 50% paid)	$ 514	Partially Subsidized Services (1028 patients charged $1 fee, an undercharge)	1,028($x)- $1,028
	Firm Backlog		Bad Debt Write-off (50% of 1028 do not pay)	514
	Money for salaries from Ministry of Health	1,125	Vehicle Maintenance	200
	Drugs from AID		Equipment Maintenance	150
	Drugs from Ministry of Health		Medicine Storage	+ 100
			Medical Supplies	321
			Educational Supplies	128
			Office Supplies	.121

* An Oversimplification

** = Average market worth of service rendered to clients.

Table VI-2 shows an Expense and Cash Flow Work Sheet for Grenadina Health Centers. Once again, all figures are averages over 10 randomly selected health centers. The entries here are not so directly derivable from the financial and business records as the assets and liabilities, and require interviewing an organization's leadership.

As you will see in the next section titled "Computation Formulae"; the information which plugs directly into the P/C/I Model comes from both the Assets and Liabilities Work Sheet, and the Expense and Cash Flow Work Sheet.

Project: Grenadina Health Centers
Date: October 1, 1974

TABLE VI-2

Summary Worksheet on Purchasables: Expenses and Cash Flow

EXPENSES*		CASH FLOW			
		Income		Projected Utilization	
Item	Amount	Source	Amount	Planned Use	Amount
Annual Expenses:		Ministry of Health	$13,500	Salaries	$13,500
Salaries	$13,500				
Medical Supplies	$ 350	Patient Fees	$ 514	Supplies	$ 514
Educational Supplies	$ 75				
Office Supplies	$ 80				
Vehicle Maintenance	$ 200				
Equipment Maintenance	$ 150				
Medicine Storage	$ 100				
TOTAL:	$14,355	TOTAL:	$14,014	TOTAL:	$14,014

* Monthly expenses, if the organization expenses are not cyclical, would be $1,196.

D. COMPUTATION FORMULAE

D. MEASUREMENT TOOLS: COMPUTATION FORMULAE

This section gives computation formulae for defining an organization's status relative to the Measures Column of the Viability Logical Framework shown on Tables V-2, V-3, and V-4.

The computation formulae for each of the P/C/I indicators are of the general form:

Formula = X > Y = Viability

Where X represents an organization's current "score" on an indicator, Formula represents the method of calculating X, and Y represents a criterion.* The criteria are numbers which must be exceeded for viability prognosis to be positive (+). When they are not exceeded, the prognosis is negative (-).

In the following paragraphs, the formulae for computing an organization's status on Purchasables, Connotation, and Image are presented with a minimum of explanation.

The theoretical basis for the formulae, and demonstrations with simulated data are presented in later sections.

1. Computation Formulae for Purchasables

The emphasis for Purchasables is on measuring endurance -- the length of time the organization could survive without an influx of new Purchasables. To compute an organization's current endurance position either of two formulae may be used. (Selection between the two can be made based on the type of data available, e.g., only monthly accounts.)

---

* At present these criteria have been tentatively defined on theoretical grounds; field testing of the model is required to verify and finalize these criteria levels.

a. Formula for Computing Endurance with Monthly Data

The formula for endurance computed using monthly financial data is:

$$\frac{\text{(Cash on Hand)} + \text{(Receivables)} + \text{(Firm Backlog)}}{\text{Total Monthly Operating Expenses}} = \underline{X}$$

The criteria (Y) for positive viability prognosis using monthly financial data is three months. Thus in general:

X > 3 months = (+)

b. Formula for Computing Endurance on an Annual Basis

The parallel formula for an annual computation is:

$$\frac{\text{(Cash on Hand)} + \text{(Firm Backlog)} + \text{(Projected Income)}}{\text{Total Annual Operating Expenses}} = \underline{X}$$

The criteria for positive viability on an annual computation basis is one year. Thus:

X > 1 year = (+)

2. Computation Formulae for Image

There are two areas of Image measurement that require computation formulae. They are:

- Image Consensus;
- Organizational Sensitivity to Image.

a. Image Consensus

The emphasis for image is on consensus or Doctrine -- the extent to which people believe the same things about what an organization is and does. A formula is needed which yields a number that:

- Increases with a group's agreement about what an organization is and does, etc.;
- Increases with the number of things a group thinks an organization is and does, etc. (Agreement on ten things shows more consensus than agreement on one thing.);
- Is independent of the number of people in the group. (Computation is useless unless we can compare consensus among a group of 20 with consensus among a group of 1,000).

Such a number can be derived using the following formula:

$$\frac{\Sigma\ (\#\ \text{of people giving each answer})^2}{(\#\ \text{of people in the group})^2} = X$$

The criteria (Y) for positive viability on consensus (+) is 10. This, in the general form:

$X > 10 = (+)$

b. Image Sensitivity

Two additional formulae are required to assess an organization's current position on image sensitivity. These formulae treat (1) Intergroup Agreement and (2) Internal Accuracy in Predicting External Image. The two formulae are of the same general type.

(1) Intergroup Agreement

The following formula is used to compute intergroup agreement. We define intergroup agreement as the degree to which leaders, members, sponsors, and clients agree on what the organization is and does.

The formula used to compute agreement is:

$$\frac{\text{\# of Image Answers Given by Both Members and Clients}}{\text{\# of Possible Agreements}} = \underline{X}$$

The criteria for a positive viability prognosis here is .5. Thus:

X > .5 = (+)

(2) Accuracy in Predicting External Image

Accuracy in this formula refers to the degree to which organization leaders and members can accurately predict what clients thinks the organization is and does. The formula used is:

$$\frac{\text{\# of Accurate Predictions}}{\text{\# of Possible Accurate Predictions}} = \underline{X}$$

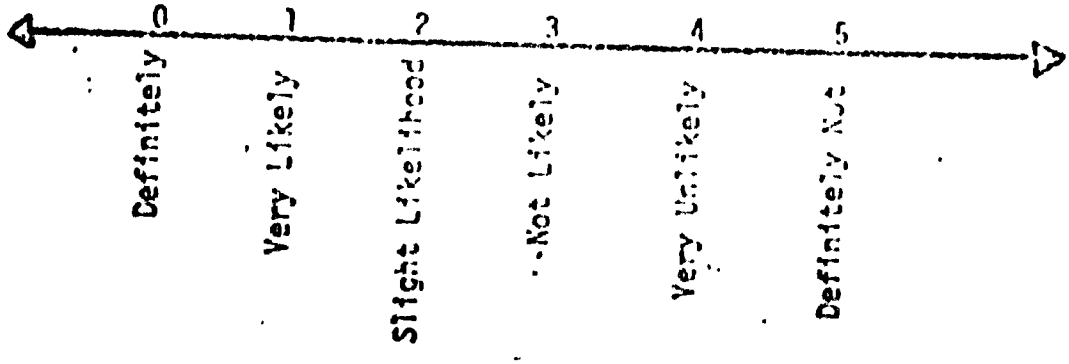
The criteria for positive viability is again .5:

X > .5 = (+)

Image Accuracy and Agreement calculations are complicated by the need to make comparisons between groups whi give different numbers of answers. The procedure for correcting for the difference is demonstrated in a later section.

3. Computation Formulae for Connotation

Connotation computations, in general, are simple averages computed in relation to the following scale:



X (the average answer) = the sum described below divided by the total number of answers given.

Numerical sum of answers to Connotation questions =

0(# of "Definitelies") + 1(# of "Very Likelies") + 2(# of "Slight Likelihoods") + 3(# of "Not Likelies") + 4(# of "Very Unlikelies") + 5(# of "Definitely Nots")

There is one exception to the general rule that averages are used to calculate connotation status. This exception is the Do/Should Overlap for Clients. The Do/Should Overlap computation follows the general formula used to compute image accuracy and agreement. The Do/Should Overlap is defined by its formula as:

$$\frac{\text{\# of Answers in Both the "Do" and "Should" Lists}}{\text{\# of Possible Overlaps}} = \underline{X}$$

The criteria for positive viability in the Do/Should Overlap has tentatively been defined as .5:

X > .5 = (+)

As in the case of Image Agreement and Image Accuracy, Do/Should Overlap calculations are complicated by the need to compare data sets of different sizes. The procedure for correcting for the difference is demonstrated in a later section.

E. ORGANIZATIONAL VIABILITY BALANCE SHEET

E. MEASUREMENT TOOLS: ORGANIZATIONAL VIABILITY BALANCE SHEET

A handy format for recording the Measures developed in the previous two sections is the Organizational Viability Balance Sheet. Table VI-3 shows a Balance Sheet which is analogous to that presented earlier in Table V-5; however, this time the descriptions of cell entries are replaced by computation formulae. A useful exercise is to compare Table VI-3 and V-5. Figure VI-4 shows a blank balance sheet with only "targets" filled in. Targets are criteria which must be surpassed for a positive viability assessment. As will be explained in more detail, many of the targets are at present tentative pending a field test of the P/C/I Model.

Table VI-5 shows how the Objectively Verifiable Indicators and Targets developed for the Viability Balance Sheet fit into an Effectiveness/Viability Logical Framework.

TABLE VI-3

ORGANIZATIONAL VIABILITY

BALANCE SHEET

	PURCHASABLES	CONNOTATION	IMAGE
INTERNAL	- Cash on Hand (Including bank account) - Monthly salaries and other money paid Members	Average answer to Connotation questions	$\Sigma(\#\text{ people giving each answer})^2$ / $(\#\text{ people})^2$ people = Members surve
EXTERNAL	- Receivables - Firm Backlog - Monthly Expenses for supplies, rent, other bills	• Average answer to Connotation questions for all but Clients • Clients: #Do/Should Overlaps / # Possible Overlaps	$\Sigma(\#\text{ people giving each answer})^2$ / $(\#\text{ people})^2$ people = Sponsors, Clients, etc., surveyed Compute a separate number for each group
SENSITIVITY	Endurance: C + R + FB / Total Monthly Expenses	Average answer to Connotation Sensitivity Questions.	• Agreement: # Member-Client Agreements / Possible Member-Client Agreements • Member Accuracy at Predicting Client Image of Organization # Accuracies / Possible Accuracies

FIGURE VI-4

ORGANIZATIONAL VIABILITY BALANCE SHEET

	PURCHASABLES		CONNOTATION		IMAGE	
	OVI	TARGET	OVI	TARGET	OVI	TARGET
INTERNAL	Cash on Hand = Monthly Salaries =		Members =	3.0	Members =	10
EXTERNAL	Receivables = Firm Backlog = Monthly Expenses (supplies, etc.) =		Sponsors = Clients =	3.0 .5	Sponsors = Clients =	10 10
SENSITIVITY	Endurance =	3 mos.	Agreement Member/Client =	Match	Agreement Member/Sponsor =	.5
					Member/Client =	.5
			Accuracy Member/Client =	Match	Sponsor/Client =	.5
					Accuracy Member/Client =	.5

TABLE VI-5

EFFECTIVENESS/VIABILITY LOGICAL FRAMEWORK FOR HEALTH ORGANIZATIONS

NARRATIVE	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION
GOAL: Solution to a broad category of health problems	Health, social welfare, and quality of life indices such as - life expectancy - infant mortality - morbidity rate	Long-term impact assessment
INTERIM GOAL: Current, specified health problems solved.	Incidence of current, specified health problems such as: - malnutrition - diptheria - malaria - polio	Short-term impact assessment
PURPOSE: Viable health organization that will detect and solve future, only generally specified health problems.	Purchasables/Endurance > 3 months Connotation/Potential Energy Members > 3.0 Clients > .50 Sponsors > 3.0 Image/Consensus Members > 10 Clients > 10 Sponsors > 10 Sensitivity to: Connotation Match Image > .50	Short interviews with the members, clients, and sponsors of health organizations. Simple accounting
OUTPUTS: 1. EFFECTIVENESS: Magnitudes of health service production which suggest effective solution to current, specified health problems.	- # patients served - amount of medicine dispensed - hours of health education - etc.	Monitoring by project managers.
2. ORGANIZATION BUILDING: Leadership, Doctrine, Programs, Resources, Structure, Linkages.	Checklists, such as Thorson's "Institutional Profile" (Conference on Institution Building, AID, 1969).	Site visits by experts on health organizations.

NOTE: The heavy line highlights the P/C/I Model explained in this volume.

SECTION SEVEN

DEMONSTRATION OF MEASUREMENT

In the section titled Measurement Tools, we presented a comprehensive but superficial treatment of P/C/I Measurement. The purpose of this section is to answer the major practical and theoretical questions raised by our measurement approach, in particular our approach to measuring Image. In this section we will show that:

- The measurement tools measure what they are supposed to measure;
- The measurement tools can be applied to real data.

To demonstrate the latter, we have generated data for a network of health centers in an imaginary Latin American country called Grenadina. The data are based on first-hand knowledge of how health centers work, but correspond to no particular real situation. Background information, and a thumbnail sketch of the situation are included in Table VII-1, and a completed Viability Balance Sheet is presented in Table VII-2. We will refer to the Grenadina Balance Sheet throughout this chapter.

The Measurement Issues we will address are:

- Measurement of Image Consensus;
- Comparisons of Different Sets of Image Data;
- Measurement of Connotation;
- Measurement of Purchasables/Endurance.

TABLE VII-1

BACKGROUND INFORMATION ON THE

GRENDINA HEALTH CENTERS

REGION	# OF HEALTH CENTERS	AVERAGE # OF MEMBERS PER CENTER	SPONSORS	AGE OF HEALTH CENTERS
Latin America	81	5.3	AID and Ministry of Health	1 yr.

THUMBNAIL SKETCH OF THE

HEALTH CENTERS' DOCTRINE AS PERCEIVED

BY SPONSORS, MEMBERS AND CLIENTS

SPONSORS	MEMBERS	CLIENTS	COMMENT
Preventive Medicine	Preventive Medicine	No Focus	Newly trained members. Unfocused "health" publicity campaign.

PEOPLE INTERVIEWED

10 SPONSORS	50 MEMBERS	100 CLIENTS

GRENADINA HEALTH CENTERS

ORGANIZATIONAL VIABILITY BALANCE SHEET

	PURCHASABLES		CONNOTATION		IMAGE	
	OVI	TARGET	OVI	TARGET	OVI	TARGET
INTERNAL	Cash on Hand = $ 650 Monthly Salaries = $1,125		Members = 3.7	3.0 (+)	Members = 18	10 (+)*
EXTERNAL	Receivables = $514 Firm Backlog = $1,100 Monthly Expenses (supplies,etc.) = $71		Sponsors = 3.5 Clients = .72	3.0 (+) .5 (+)	Sponsors = 14 Clients = 6	10 (+) 10 (-)
SENSITIVITY	Endurance = 1.7 Months	3 (-)	Agreement Member/Client: They match. Accuracy Member/Client: They match.	Match(+) Match(+)	Agreement Member/Sponsor = .70 Member/Client = .39 Sponsor/Client = .04 Accuracy Member/Client = .41	.50 (+) .50 (-) .50 (-) .50 (-)

* The signs (+) and (-) indicate respectively a positive or negative viability assessment.

A. IMAGE CONSENSUS

A. IMAGE CONSENSUS

You will remember that our approach to measuring within-group image consensus was to ask a series of simple questions to find out what words, phrases, and concepts come readily to mind when the topic for consideration is the organization we are studying.

The computation formula we described as measuring Image Consensus was the following:

$$\frac{\Sigma(\text{\# of people giving each answer})^2}{(\text{\# of people in the group})^2}$$

We suggested that numbers generated by the above formula had the following characteristics:

1. They increase with a group's agreement on what an organization is and does;
2. They increase with the number of things a group thinks an organization is and does. (Agreement on ten things shows more consensus than agreement on one thing.)
3. They are independent of the number of people interviewed (Computation is useless unless we can compare consensus among a group of 20 with consensus among a group of 1,000)

The purposes of the following two sets of simple example data are to:

- Show how consensus is computed, and
- Demonstrate that $\frac{(\text{\# of people giving each answer})^2}{(\text{\# of people in the group})^2}$ has the characteristics we claim for it.

1. FIVE PEOPLE IN THE GROUP

SITUATIONS	ALTERNATIVE ANSWERS							CONSENSUS
		a	b	c	d	e	f	
	I	1	1	1	1	1	0	$(1^2+1^2+1^2+1^2+1^2)/5^2 = .20$
	II	5	0	0	0	0	0	$(5^2)/5^2 = 1.0$
	III	1	1	1	0	0	0	$(1^2+1^2+1^2)/5^2 = .12$
	IV	5	5	5	0	0	0	$(5^2+5^2+5^2)/5^2 = 3.0$
	V	1	1	1	1	1	1	$(1^2+1^2+1^2+1^2+1^2+1^2)/5^2 = .24$

2. TEN PEOPLE IN THE GROUP

SITUATIONS	ALTERNATIVE ANSWERS							CONSENSUS
		a	b	c	d	e	f	
	I	2	2	2	2	2	0	$(2^2+2^2+2^2+2^2+2^2)/10^2 = .20$
	II	10	0	0	0	0	0	$(10^2)/10^2 = 1.0$
	III	2	2	2	0	0	0	$(2^2+2^2+2^2)/10^2 = .12$
	IV	10	10	10	0	0	0	$(10^2+10^2+10^2)/10^2 = 3.0$
	V	2	2	2	2	2	2	$(2^2+2^2+2^2+2^2+2^2+2^2)/10^2 = .24$

Note that:

1. **The consensus measure on the right increases as the same number of responses are distributed among fewer alternative answers. (Compare AI with AII, and BI with BII.)**

2. **The consensus measure on the right increases with the number of alternative answers the same number of people agree on. (Compare AIII with AIV, and BIII with BIV.)**

3. Multiplying all the raw data in the body of the tables by a constant (the number 2 in this case) does nothing to the consensus measures on the right.

   AI = BI, or
   $1^2+1^2+1^2+1^2+1^2/5^2 = 2^2+2^2+2^2+2^2+.\ '10^2 = .20$

   and

   AII = BII, or
   $5^2/5^2 = 10^2/10^2 = 1.0$

You understand Image Consensus when you agree that:

1. The situations under A should yield the same measures as the situations under B;

2. The measures under both A and B should be ordered: IV, II, V, I, III.

It may help give a feel for magnitudes to say that when everyone in a group agrees on one answer, Image Consensus is 1.0, and when everyone agrees on two answers, it is 2.0, etc. A Consensus Measure of 15 is tantamount to meaning all members of the group agree on 15 answers. It does not mean precisely that they agree unanimously on 15 answers; it is more probable that they agree less than unanimously on more than 15 answers. However, a reasonable approximation is to think of them as agreeing unanimously on 15 answers

Our work with imaginary data has led us to the tentative conclusion that Image Consensus numbers above 10 are relatively large, and suggest a positive viability prognosis.

Grenadina Health Centers Image Data

The following three tables (VII-3, VII-4, and VII-5) are work sheets for computing Image Consensus for Members, Sponsors, and Clients of the Grenadina Health Centers. Note that:

1. The Image Consensus numbers on the work sheets correspond to those on the Balance Sheet already presented in Table VII-2;

2. For Members and Sponsors, Image Consensus measures are above 10 (17.6 and 13.65), and for Clients the measure is below 10 (5.9);

3. On the Balance Sheet, Members and Sponsors Image are characterized by a +, meaning strength, and Client Image is characterized by a -, meaning weakness;

4. The worksheets show that Sponsors and Members concentrated their responses on relatively few answers, while Client responses are "spread all over the lot."

Further clarification of what is meant by "Image Consensus" is provided by the graphic representations which are discussed next.

Image Consensus Graphs

Tables VII-6, VII-7, and VII-8 are graphic representations of Member, Sponsor, and Client Images of Health Centers in the imaginary land of Crenadina. Note that the shapes for the strong Member and Sponsor Images, where there is consensus on what the Health Centers are and do, are very different from the Client Image, where consensus is low.

Rectangular shapes mean strong Image Consensus, and triangular shapes mean weak Image Consensus. For Members and Sponsors, most of the answers given are agreed on by a very high percentage of the people. But for Clients, there are many answers agreed on by a low percentage.

PROJECT: Grenadina Health Centers
Date: October 1, 1974

TABLE VII-3

SUMMARY WORKSHEET ON IMAGE: MEMBERS

SUMMARY OF RESPONSES		
NUMBER GIVING RESPONSES	RESPONSES	NUMBER OF TIMES RESPONSES GIVEN
50	Prevent Disease	50
	Public Health Education	50
	Mothers Club	50
	Babies	50
	School Children	50
	People With No Money	50
	Doctor	50
	Nurse	50
	Social Worker	50
	Sanitation Worker	50
	Birth Control Pills	50
	Free Medicine	50
40	Family Planning Devices	40
	Poor People	40
	Fever	40
	Operating Room	40
	Government of Grenadina	40
	Advertise USA	40
30	Dental Care	30
	Old	30
	Tuberculosis	30
	Keep Functioning	30
	Keep Records	30
10	When Slaughtering	10
	AID	10
# OF INDIVIDUALS RESPONDING: n=50		TOTAL NUMBER OF RESPONSES: Σx 1010

SUMMARY OF COMPUTATIONS	
$n = 50$	Image/Concensus = $\Sigma x^2/n^2$
$\Sigma x = 1010$	$= 44300/2500$
$\Sigma x^2 = 12(50^2) + 6(40^2) + 5(30^2) + 2(10^2)$	$= 17.6 > 10$
$\Sigma x^2 = 44300$	

PROJECT: Grenadina Health Centers
DATE: October 1, 1974

TABLE VII-4

SUMMARY WORKSHEET ON IMAGE: SPONSORS

SUMMARY OF RESPONSES		
NUMBER GIVING RESPONSES	RESPONSES	NUMBER OF TIMES RESPONSES GIVEN
10	Prevent Disease	10
	Public Health Education	10
	Doctor	10
	Nurse	10
	Social Worker	10
	Birth Control Pills	10
	Free Medicine	
9	AID	9
	Poor People	9
	Keep Functioning	9
8	Family Planning Devices	8
	Mothers Club	8
	Babies	8
	People With No Money	8
	Record Keeping	8
7	School Children	7
6	Tuberculosis	6
4	Government of Grenadina	4
1	Cure Disease	1
# OF INDIVIDUALS RESPONDING: n=10		TOTAL NUMBER OF RESPONSES: $\Sigma x = 155$

SUMMARY OF COMPUTATIONS	
$n = 10$	Image/Concensus: $\Sigma x^2/n^2$
$\Sigma x = 155$	$= 1365/100$
$\Sigma x^2 = 7(10^2) + 3(9^2) + 5(8^2) + 1(7^2) + 1(6^2) + 1(4^2) + 1(1)^2$	$= 13.65 > 10$ (+)
$\Sigma x^2 = 1365$	

PROJECT: Grenadine Health Centers
DATE: October 1, 1974

TABLE VII-5

SUMMARY WORKSHEET ON IMAGE: CLIENTS

SUMMARY OF RESPONSES		
NUMBER GIVING RESPONSES	RESPONSES	NUMBER OF TIMES RESPONSES GIVEN
90	Doctor	90
80	Old People	80
	Nurse	80
78	Big New Building	78
54	Ambulance	54
50	Keep Records	50
42	Milk	42
	Social Worker	42
	Files	42
40	Dental Care	40
36	Mothers Club	36
	Medicines	36
34	Free Medicine	34
	Prescriptions	34
	Anybody	34
	School Children	34
32	The People	32
28	Tooth Ache	28
	Family Planning Information	28
	Malaria	28
26	Cure Disease	26
	Newly Married	26
	Children	26
	Set Bones	26
	Family Planning Devices	26
	Lab Exam	26
	Babies	26
24	X-ray Machine	24
20	Vaccines	20
	Prevent Disease	20
	Fever	20
	People With No Money	20
	Operating Room	20
18	Mothers	18
	Broken Bones	18

PROJECT: Grenadine Health Centers
DATE: October 1, 1974

SUMMARY WORKSHEET ON IMAGE: CLIENTS (PAGE 2)

SUMMARY OF RESPONSES (CONTINUED)		
NUMBER GIVING RESPONSES	RESPONSES	NUMBER OF TIMES RESPONSES GIVEN
16	X-Rays	16
14	Quinine Sanitation Inspector	14 14
8	Public Health Education Pregnant Laboratory	8 8 8
4	Birth Control Pills	4
2	Poor People	2
# OF INDIVIDUALS RESPONDING: n=100		TOTAL NUMBER OF RESPONSES: $\Sigma x = 1358$

SUMMARY OF COMPUTATIONS

$n = 100$

$\Sigma x = 1358$

$\Sigma x^2 = 1(90^2) + 2(80^2) + 1(78^2) + 1(54^2) + 1(50^2) + 3(42^2) + 1(40^2) + 2(36^2) + 4(34^2) + 1(32^2) + 3(28^2) + 7(26^2) + 1(24^2) + 5(20^2) + 2(18^2) + 1(16^2) + 2(14^2) + 3(8^2) + 1(4^2) + 1(2^2)$

$\Sigma x^2 = 58,764$

Image/Concensus $= \Sigma x^2/n^2$

$= 58,764/10,000$

$= 5.9 < 10$

PROJECT: GRENADINA HEALTH CENTERS

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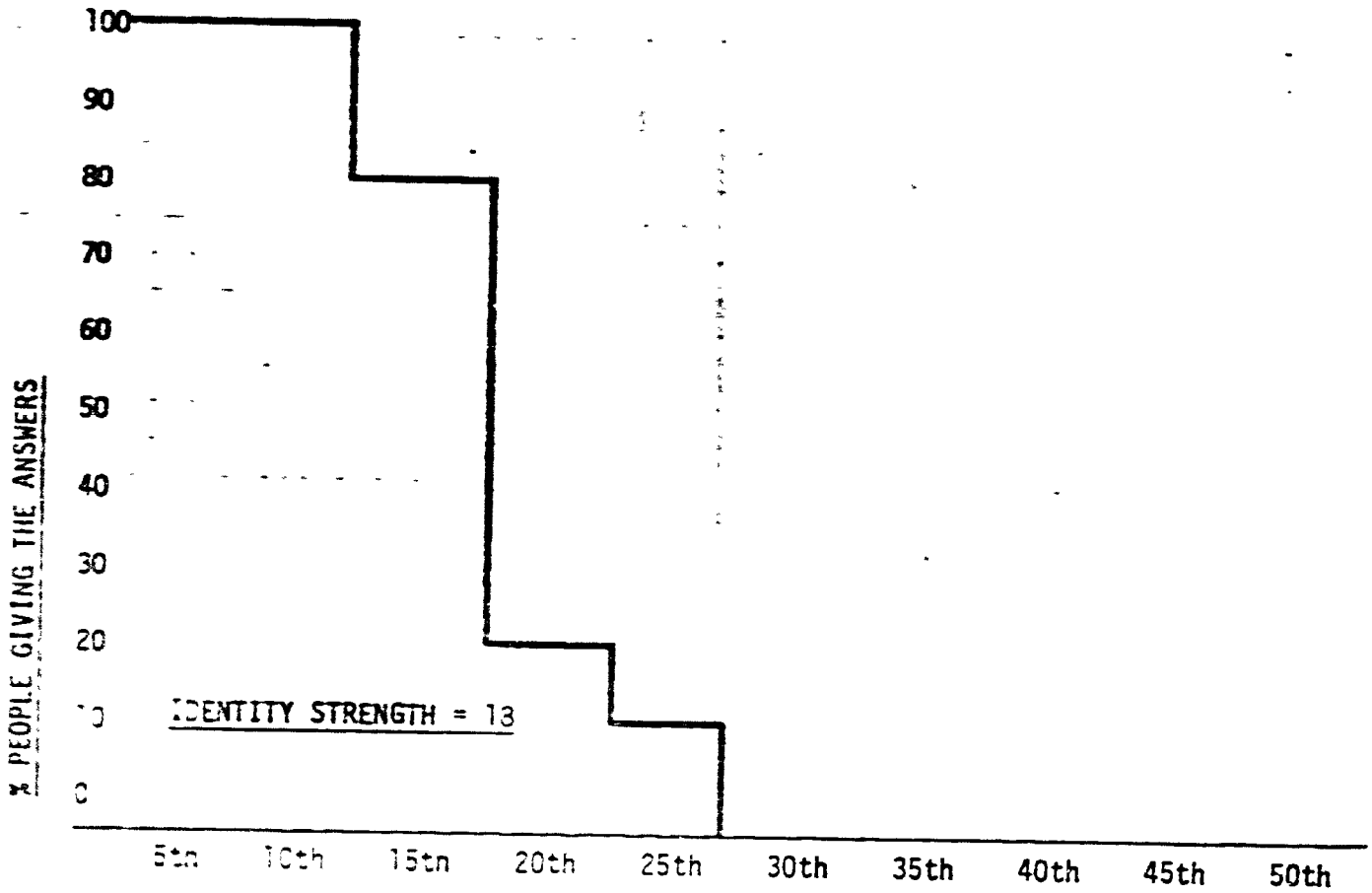
TABLE VII-6

IMAGE CONSENSUS - MEMBERS

(n=50)



PROJECT: GRENADINA HEALTH CENTERS

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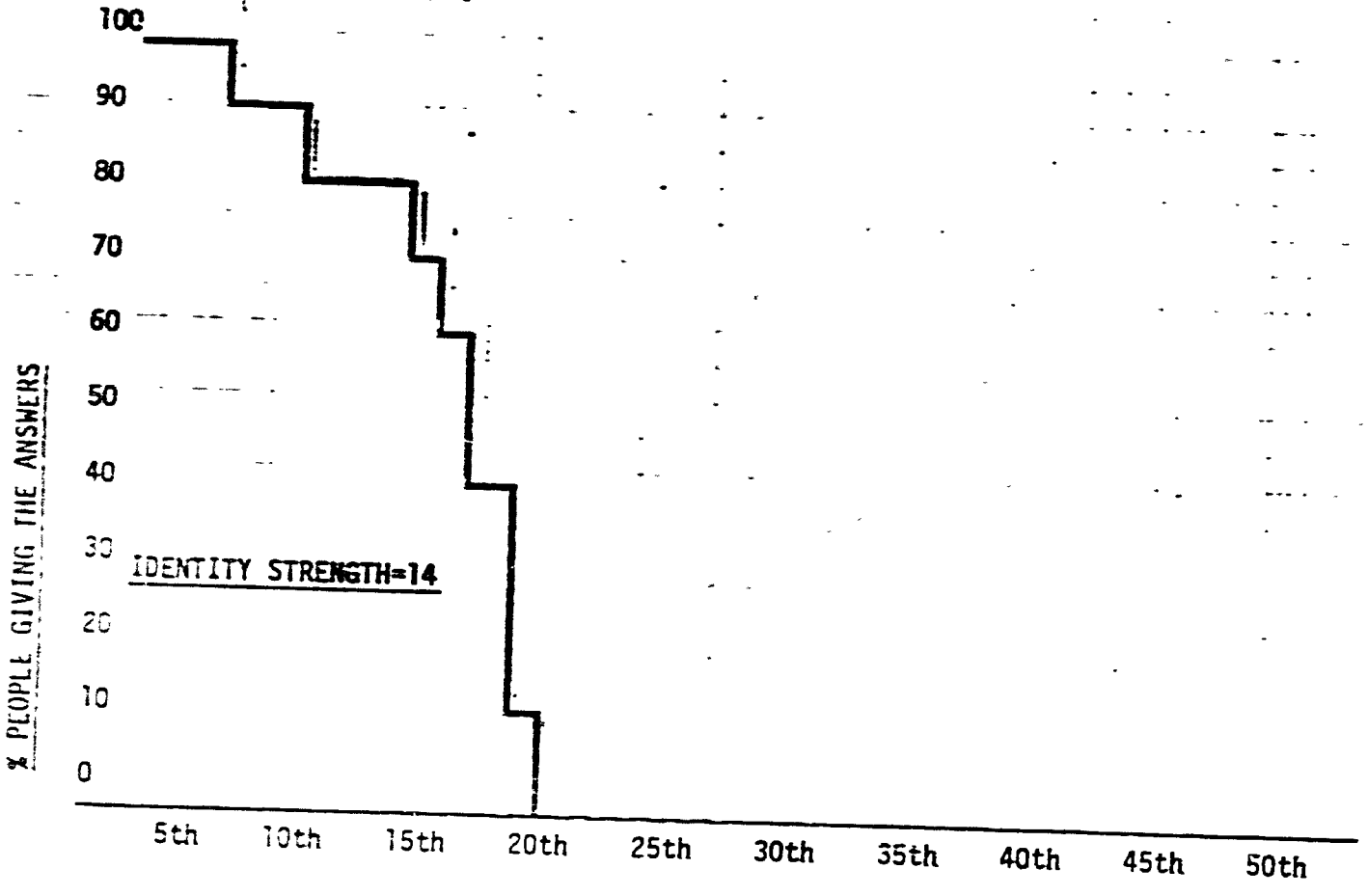
TABLE VII-7

IMAGE CONSENSUS - SPONSORS

(n=10)



PROJECT: GRENADINA HEALTH CENTERS

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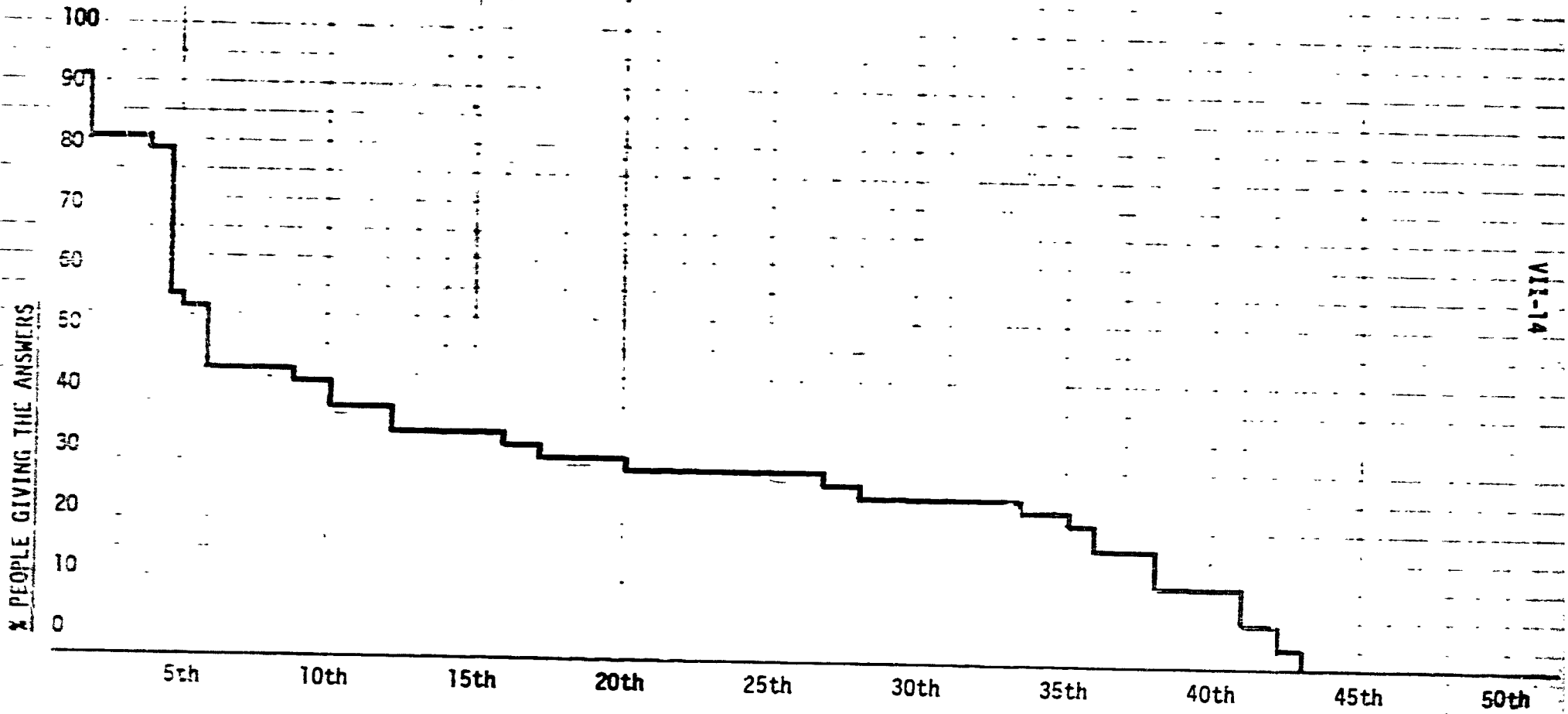
TABLE VII-8

IMAGE CONSENSUS - CLIENTS

(n=100)



B. COMPARISONS OF DIFFERENT SETS OF IMAGE DATA

B. COMPARISONS OF DIFFERENT SETS OF IMAGE DATA

The P/C/I Measurement operations which fall under the title above are:

1. Image Agreement: Comparisons of pairs of groups' Image data (Members and Clients, for example);
2. Image Accuracy: Comparison of member predictions about Client Image data with actual Client Image data;
3. Do/Should Overlap: Comparison of Client Image data with Client Ideas about what the organization "should" do.

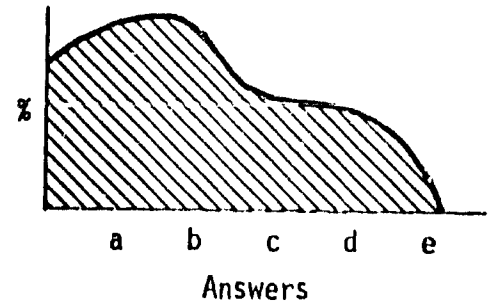
Before we discuss the details of how to do the above, perhaps we had better refresh our memories about why we do them. #1 and #2 are measures of an organization's sensitivity to its own external Image. An organization that neither agrees with its external Image, nor knows what its external Image is, stands very little chance of being viable. The odds are that it will offer unoemanded services, and not know they are undemanded. And chances are that without subsidy it would go out of business.

#3 is a measure of external Connotation. An organization whose Client's Image of it corresponds to their ideas if what such an organization should be doing has high Client Connotation.

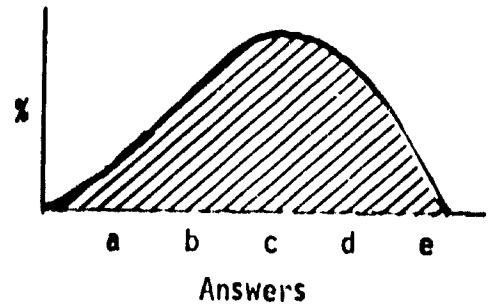
1. Graphic Representation

Here we will graphically represent what is meant by comparison of two sets of Image data. The graphs apply for all three of the comparisons listed and discussed above. We will talk about two sets of Image data: Set A and Set B.

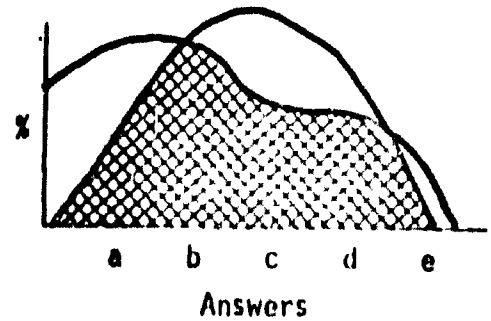
For a group of answers to Image questions, Set A has the following distribution:



And for the same group of answers to Image questions, Set B has the following distribution:



The Set A/Set B comparison makes the following juxtaposition of Image data:



The cross-hatched area is the area of correspondence between Data Set A and Data Set B.

2. Numerical Representation

PCI's task with respect to the three "comparison" issues was to construct a numerical analog to the juxtaposition of Image data, just described graphically. The problem is that all the comparisons referred to here are most often between data sets of different sizes. A group of 10 Members, for example, gives less answers to Image questions than a group of 100 Clients. True comparison requires, however, that we operate as if the two groups gave the same number of answers.

First we will present our solution with very simple numbers,and then we will present it with data generated for Grenadina Health Centers.

Simple Numbers

Step One:

Step one is to multiply the raw data by whatever constants are required to make the total responses in each set equal each other. Such a procedure does not disturb the relative distribution of responses across alternative answers, and paves the way to simple, meaningful comparison between sets of Image data.

RAW DATA

	ANSWERS					
	a	b	c	d	e	
Data Set A	2	1	1	1	0	= 5 responses
Data Set B	6	4	0	0	0	= 10 responses

Set A has twice as many responses as Set B, so we will multiply Set A data by two (the constant in this case). The result is what we will call "adjusted" data.

ADJUSTED DATA

	ANSWERS					
	a	b	c	d	e	
Data Set A	4	2	2	2	0	= 10 responses
Data Set B	6	4	0	0	0	= 10 responses

Step Two:

Correspondence between Data Sets A and B = # Correspondences/# Responses (adjusted data).

SAMPLE DATA (ADJUSTED)

(Adjusted data are presented in the form: Set A/Set B)

	ALTERNATIVE ANSWERS						CORRESPONDENCE
		a	b	c	d	e	
SITUATIONS	I	4/6	2/4	2/0	2/0	0/0	4 + 2/10 = .60
	II	6/6	4/4	0/0	0/0	0/0	6 + 4/10 = 1.0
	III	10/10	0/0	0/0	0/0	0/0	10/10 = 1.0
	IV	10/0	0/10	0/0	0/0	0/0	0/10 = 0.0
	V	2/6	2/4	4/0	2/0	0/0	2 + 2/10 = .20

You understand comparison between sets of Image data when you agree that the measures at the right should be ordered the way they are. Note that the measures vary between 0.0 and 1.0. A measure of .5 means that data correspondence (agreement, accuracy, etc.) is exactly balanced by non-correspondence (disagreement, inaccuracy, etc.). We have therefore chosen .5 as a tentative criterion for separating positive and negative viability prognosis.

3. Grenadina Health Centers Data

Tables VII-9, VII-10, and VII-11 show work sheets for computing:

- Member/Client Image Agreement
- Member/Client Image Accuracy, and
- Client Do/Should Overlap (Client Connotation)

Before we discuss the measurement issues raised by the Grenadina data, please acquaint yourselves with the work sheets by verifying the points listed below:

1. The measures at the bottom of the work sheets correspond to entries in appropriate boxes of the Viability Balance Sheet (Table VII-2);

2. Accuracy and Agreement measures are below .5, and Do/Should Overlap (Client Connotation) is above .5;

3. Accuracy and Agreement on the Balance Sheet are characterized by -, meaning weakness, and Client Connotation is characterized by +, meaning strength;

4. Member/Client Image Accuracy is no higher than Member/Client Image Agreement, which means Members of Grenadina Health Centers are poor at "putting themselves in the Client's shoes."

TABLE VII-9

GRENADINA HEALTH CENTERS

MEMBERS/CLIENTS IMAGE AGREEMENT

ANSWERS	MEMBERS	CLIENTS	CLIENTS ADJUSTED	AGREEMENTS
Free Medicine	50	34	22	22
Public Health Education	50	8	5	5
Dental Care	30	40	26	26
Family Planning Devices	40	26	17	17
Mothers Club	50	36	23	23
Babies	50	42	27	27
Poor People	40	2	1	1
Old People	30	80	51	30
Prevent Disease	50	20	13	13
School Children	50	34	22	22
Fever	40	20	13	13
No Money	50	20	13	13
Tuberculosis	30	70	45	30
Doctor	50	90	58	50
Nurse	50	80	51	50
Social Worker	50	26	17	17
Records	30	42	27	27
Birth Control Pills	50	4	3	3
Operating Room	40	20	13	13
Σx =	1010	1562	k=64	402

$k = 1010/1562 = .64$

Agreement = $402/1010 = .39 \rightarrow .50$

TABLE VII-10

GRENADINA HEALTH CENTERS

MEMBER/CLIENT IMAGE ACCURACY

ANSWERS	MEMBERS	CLIENTS	CLIENTS ADJUSTED	ACCURACIES
Free Medicine	45	34	22	22
Public Health Education	45	8	5	5
Dental Care	30	40	26	26
Family Planning Devices	40	26	17	17
Mothers Club	45	36	23	23
Babies	50	42	27	27
Poor People	35	2	1	1
Old People	30	80	51	30
Prevent Disease	50	20	13	13
School Children	45	34	22	22
Fever	40	20	13	13
People with No Money	50	20	13	13
Tuberculosis	30	70	45	30
Doctor	45	90	58	50
Nurse	50	80	51	50
Social Worker	50	26	17	17
Records	30	42	27	17
Birth Control Pills	50	4	3	3
Operating Room	40	20	13	13
Σx =	980	1530	k=.64	402

$k = 980/1530 = .64$

Accuracy = $402/980 = .41 < .50$

TABLE VII-11

GRENADINA HEALTH CENTERS

CLIENTS DO/SHOULD OVERLAP

	SHOULD	DO	ADJUSTED DO	OVERLAPS
Doctor	100	90	86	86
Ambulance	100	54	52	52
Old People	78	80	77	77
Nurse	78	80	77	77
Cure Disease	78	26	25	25
Milk	68	42	40	40
Keep Records	68	50	48	48
Anybody	68	34	33	33
Dental Care	52	40	38	38
Big New Building	52	78	75	52
Babies	52	26	25	25
Free Medicines	49	34	33	33
Prescriptions	49	34	33	33
Pregnant Women	49	8	8	8
Children	39	26	25	25
Tooth Ache	39	28	27	27
School Children	35	34	33	33
Club de Madres	34	36	35	34
Social Worker	34	42	40	34
Family Planning	30	26	25	25
Vaccines	30	20	19	19
Malaria	25	28	27	25
Mothers	25	18	17	17
Broken Bones	20	18	17	17
X ray	20	24	23	20
People with No Money	18	20	19	18
Pregnant	10	8	8	8
Public Health Education	5	8	8	5
Σ =	1305	1358	k=.96	934

k = 1305/1358 = .96

Do/Should Overlap = 934/1305 = .72 > .50

Measurement Issues: "k" and the "Adjusted" Column

In each comparison work sheet you will find the term k. k is used to adjust two raw data columns to the same base, so they can be compared. In each case, k is a constant computed specifically for that comparison. k changes from one comparison to another.

If comparison is between two columns, A and B, then:

$$k = \frac{\text{Column A Total}}{\text{Column B Total}}$$

For Member/Client Image Agreement (see Table VII-9):

$$k = \frac{\text{Total \# Member Image Answers}}{\text{Total \# Client Image Answers}}$$

For Member/Client Image Accuracy, and Do/Should Overlap, k is computed in analogous fashion.

"Adjustment" means multiplying all the entries in Column B by k (usually a fraction smaller than 1.0). For Member/Client Image Agreement, it means multiplying the number of Clients giving each Image answer by k.

Now:

Column A Total = Adjusted Column B Total

and

Total # Member Image Answers = Total # Adjusted Client Image Answers

Measurement Issues: Compute the Comparison

The comparison is a row-wise measuring of Column A against "Adjusted" Column B. For Member/Client Image Agreement it is a measuring of the Member answers to the image questions against "Adjusted" Client answers. The procedure is, for each row, to pick the smaller number, and then to sum the smaller numbers. This sum is the number of correspondences between the compared data sets. For Member/Client Image Agreement, it is the number of agreements.

The final step:

$$\text{Comparison} = \frac{\text{\# of Correspondences}}{\text{Column A Total}}$$, or

$$\text{Member/Client Image Agreement} = \frac{\text{\# of Agreements}}{\text{Total \# Member Image Answers}}$$

For Member/Client Image Accuracy, and Do/Should Overlap, the comparisons are computed in analogous fashions.

C. MEASUREMENT OF CONNOTATION

C. MEASUREMENT OF CONNOTATION

Internal Connotation

The crucial issue for Connotation measurement is not statistical, as the issues are for Image, but tactical.

The serious problem to be surmounted in eliciting Internal Connotation is to define questions that are non-threatening. Workers at an organization are not likely to tell anyone but close friends that they are "in it just for the money," or that their jobs are not worth doing.

Thus, to elicit Internal Connotation, we substitute a "neutral" question for a direct one, and ask leaders and members to tell us the general probability that leaders and members in organizations like theirs would leave it for a slight increase in benefits. (See page VI-6.)

The logic is that if general opinion holds that leaders and members in similar organizations would leave for a marginal increase in benefits, then connotation in the organization we are studying must be low.

Questions like ours for eliciting Internal Connotation have been shown to measure committment* to an organization when asked in a personal fashion:

> "Would you be likely to leave your job here for a small increase in pay, professional freedom, etc. etc.?"

We have developed the impersonal format because we believe it to be essentially non-threatening and non-reactive, a characteristic which assumes paramount importance in developing countries. It is probably impossible to develop absolutely non-reactive Internal Connotation

* Hrebiniak, Lawrence G. and Alutto, Joseph A. "Personal and Role Related Factors in the Development of Organizational Commitment," Administrative Science Quarterly, 1972, Volume 17, pp. 555-573.

questions, however we are confident that our approach will consistently reveal differences between high and low connotation organizations.

Table VII-12 demonstrates Connotation Measurement for Grenadina Health Centers. To refresh your memories about the twenty Connotation questions whose responses are tabulated in the table, see page VI-6.

We have chosen 3.0 as our criterion distinguishing between positive and negative viability prognosis. Based on simulated data, 3.0 means:

> "Not likely to leave for a small increase in pay, professional freedom, status, or friendliness of co-workers."

Whether the criterion is appropriate or not depends on field-testing.

Sponsor Connotation, and Member Sensitivity to Client Connotation

It is our perception that, in general, Sponsor Connotation and Member Sensitivity to Client Connotation present closely related measurement problems. The issue in both cases is whether the organization is perceived as appreciated by clients. If Members think their organization is appreciated by Clients, then they are likely to appreciate it themselves. And if Sponsors think the organization is appreciated by Clients, then they are likely to support it financially and otherwise. Sponsor support of an organization is especially dependent on perceptions of whether the organization is appreciated by Clients if Sponsors are elected officials. It is smart politics for elected officials to support organizations they perceive as popular.

For neither Sponsor Connotation nor Member Sensitivity to Client Connotation are there compelling reasons to expect direct questions to elicit candid answers. Therefore we have designed the following question format for both situations:

GRENADINA HEALTH CENTERS

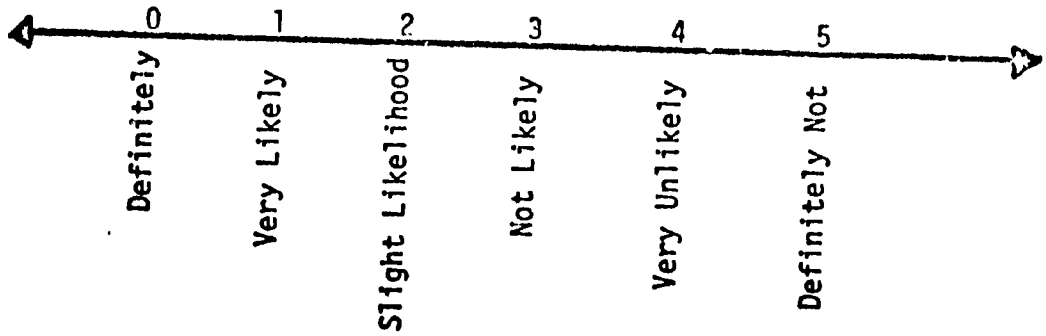
MEMBER CONNOTATION

	0 DEFINITELY	1 VERY LIKELY	2 SLIGHT LIKELIHOOD	3 NOT LIKELY	4 VERY UNLIKELY	5 DEFINITELY NOT	
1			6	4	40		= 50
2				15	34	1	= 50
3				22	23	5	= 50
4			4	16	18	12	= 50
5			3	12	21	14	= 50
6			10	16	9	15	= 50
7			3	7	40		= 50
8				12	38		= 50
9				20	24	6	= 50
10			3	15	22	10	= 50
11			8	17	8	17	= 50
12			8	2	40		= 50
13				15	35		= 50
14				17	28	5	= 50
15			9	11	20	10	= 50
16			10	15	10	15	= 50
17			5	4	41		= 50
18				15	35		= 50
19				20	26	4	= 50
20			3	17	21	9	= 50
Σ =			72	272	533	123	= 1000
	x 0	x 1	x 2	x 3	x 4	x 5	
			144	816	2132	615	= 3707

Connotation = 3707/1000 = 3.7 > 3.0

"In general, how likely would people be to stop using the organization if _____ were slightly more expensive?"

The answers given by respondents are scored on the following scale:



The total matrix includes 20 questions.

Fill in the blank with items Sponsors or Members think are basic to the organization. These basic items are the high consensus items from Sponsor and Member Image data.

The logic is that if opinion holds that a marginal increase in fees charged for services would reduce business substantially, then Client Connotation must be perceived as low.

Now we will show how measurement of Sponsor Connotation and Member Sensitivity to Client Connotation work for Grenadina Health Centers.

Grenadina Health Centers Sponsor Connotation

Items for filling in the blank in the Connotation questions for Sponsors of health centers in the imaginary land of Grenadina are listed below. Note that they correspond to unanimous Sponsor answers to Images questions (Tables VII-4).

1. Disease prevention.
2. Public Health Education.

3. Seeing the Doctor
4. Seeing the Nurse
5. Seeing the Social Worker
6. Birth Control Pills

The average simulated Sponsor was 3.5, or halfway between "Likely" and "Not Likely" to stop using Grenadina Health Centers if services were slightly more expensive. Viability prognosis is therefore positive, since our tentative criterion is 3.0.

Grenadina Health Centers Members Sensitivity to Client Connotation

Items for filling in the blank in the Connotation Sensitivity questions for Members of health centers in the imaginary land of Grenadina are listed below. Note that they correspond to unanimous Members answers to Image questions (Table VII-3).

1. Disease prevention.
2. Public Health Education.
3. Mothers Club Membership
4. Health care for babies.
5. Health care for school children.
6. Seeing the Doctor.
7. Seeing the Nurse.
8. Seeing the Social Worker.
9. Visits by the Sanitation Inspector.
10. Birth Control Pills

The average answer for Members of Grenadina Health Centers to the Connotation Sensitivity questions was 3.3 which is just short of halfway between "Likely" and "Not Likely" to stop using Grenadina Health Center if _____ were slightly more expensive. Viability prognosis is therefore

positive, since our tentative criterion is 3.0. Data treatment for Member Sensitivity to Client Connotation is exactly analogous to that for Internal Connotation (Table VII-12).

D. MEASUREMENT OF PURCHASABLES/ENDURANCE

D. MEASUREMENT OF PURCHASABLES/ENDURANCE

The crucial issue in measurement of Purchasables/Endurance, or the capacity for subsistance without Purchasables from external sources, is to separate out those factors which determine Endurance from all the Purchasables data available.

You will note that P/C/I Accounting Procedures (VI-C) propose collection of much more data than is required by the Balance Sheet, or by the Endurance formulae:

$$\frac{\text{Cash on Hand + Receivables + Firm Backlog}}{\text{Total Monthly Operating Expenses}} \qquad 3 \text{ months}$$

$$\frac{\text{Cash on Hand + Firm Backlog + Projected Income}}{\text{Total Annual Operating Expenses}} \qquad 1 \text{ year}$$

Our suggestion that more Purchasables information be collected than is utilized by the Endurance formulae stems from a conviction that the relationship of Purchasables to viability varies more from situation to situation than do the relationships of Image and Connotation to viability.

Two basic, practical reasons for collecting more Purchasables information than is required by the Endurance formulae are listed below:

1. Once an organization has flunked the Endurance tests (the formulae listed above), furtner analysis might require digging for liquidity in addition to Cash on Hand, Receivables, and Firm Backlog, etc. And further analysis might require digging among operating expenses for those that might be expendable under conditions of duress.

2. Once an organization's Image has been defined, a profitable exercise is to map it onto Purchasable resources and look for discrepancies. Discrepancies are of two types:

   - Basic parts of an organization's Purchasable resources which are under-represented in its Image.
   - Basic parts of an organization's Image which are under-represented in a listing of Purchasable resources.

SECTION EIGHT

INTERPRETATION TOOLS

The product of all previous sections in this "Guide for the Assessment of Organizational Viability" is the Viability Balance Sheet repeated and filled out for Grenadina Health Centers in Table VIII-1. Table VIII-2 shows how the Balance Sheet measures fit into a Effectiveness/Viability Logical Framework. Pay special attention to the +'s and -'s denoting strength and weakness which we entered in the cells. In this section we will explain and demonstrate tools for interpreting the +'s and -'s. We will show how to translate from various permutations of strength and weakness to statements which predict the future of organizations and imply management action.

Table VIII-3 is a blank Organizational Viability Status Report, and Table VIII-4 is the same report filled out for Grenadina Health Centers. The focus of this part of the "Guide" is on how to get from the Balance Sheet to the Status Report. Answers to questions such as the following fall almost automatically out of the Status Report.

1. When a new program is being undertaken, is the new organization capable of assuming the additional attention?
2. After a period of assistance, what are the areas of weakness requiring special attention?
3. Has the organization reached the point where it can operate effectively without outside help?

Throughout this section we will refer to the Balance Sheet and to the Status Reports.

TABLE VIII-1

GRENADINA HEALTH CENTERS

ORGANIZATIONAL VIABILITY BALANCE SHEET

	PURCHASABLES		CONNOTATION		IMAGE	
	OVI	TARGET	OVI	TARGET	OVI	TARGET
INTERNAL	Cash on Hand = $ 650 Monthly Salaries = $1,125		Members = 3.7	3.0 (+)	Members = 18	10 (+)*
EXTERNAL	Receivables = $514 Firm Backlog = $1,100 Monthly Expenses (supplies,etc.) = $71		Sponsors = 3.5 Clients = .72	3.0 (+) .5 (+)	Sponsors = 14 Clients = 6	10 (+) 10 (-)
SENSITIVITY	Endurance = 1.7 Months	3 (-)	Agreement Member/Client: They match. Accuracy Member/Client: They match.	Match(+) Match(+)	Agreement Member/Sponsor = .70 Member/Client = .39 Sponsor/Client = .04 Accuracy Member/Client = .41	.50 (+) .50 (-) .50 (-) .50 (-)

* The signs (+) and (-) indicate respectively a positive or negative viability assessment.

TABLE VIII-2

GRENADINA HEALTH CENTERS

NARRATIVE	OBJECTIVELY VERIFIABLE INDICATORS	TARGETS
GOAL: Improved health in rural Grenadina	- Life expectancy - Infant Mortality - Morbidity - Health indices	Not Measured Here
INTERIM GOAL: Current specified health problems solved: - pre-natal health - infant health	(determined by sponsors) - Still births - Miscarriages - Infant malnutrition - Incidence of diptheria and other childhood diseases	Not Measured Here
PURPOSE: A viable health organization that will detect and solve future only generally specified health problems.	Purchasables/Endurance = 1.7 Connotation/Potential Energy Members = 3.7 Clients = .7 Sponsors = 3.5 Image/Consensus Members = 18 Clients = 6 Sponsors = 14 Sensitivity: Member/Client Connotation = Match Image = .39	< 3 months > 3.0 > .5 > 3.0 > 10 < 10 > 10 = Match < .50
OUTPUTS: 1. EFFECTIVENESS: Magnitudes of health service production that suggest effective solution to pre-natal and infant health and mortality problems in rural Grenadina	2,028 patients served. 20,000 pints of milk given out 520 house visits by the sanitation inspector 30 Mothers Club meetings 480 interviews by the social worker 4,028 records started and maintained 193 people referred to the dentist 1,200 birth control pills dispensed 190 pregnant women given pre-natal care & instructions 320 family planning devices given out $1,850 drugs dispensed $180 educational supplies (family planning literature) handed out	(determined by Sponsors) < 4,000 - = 20,000 + > 500 + > 25 + > 400 + < 5,000 - < 200 - < 4,000 - < 200 - > 300 + < $2,000 - > $150 +
2. ORGANIZATION BUILDING: Leadership, Doctrine, Programs, Resources, Structure, Linkages.	Check lists such as Thorson's "Institutional Profile" (Conference on Institution Building, AID, 1969)	Not Measured Here

NOTE: The heavy line highlights the evaluation possibilities suggested here.

TABLE VIII-3

ORGANIZATIONALITY STATUS REPORT
ACCESS TO PURCHASABLES
1. Capacity for subsistence without purchasables from external sources.
2. Linkage Strength: Prospects for future funding, etc.
ACCESS TO IMAGE AND CONNOTATION
3. Current position in the client environment. (How would the organization be faring if the clients were the sponsors?)
4. Over the short-term, is #3 on the up swing or down swing?
5. Long-term viability.
STRATEGIES FOR INCREASING IMAGE AND CONNOTATION
6. Areas where the organization can be trusted with new responsibilities.
7. Areas of opportunity.
8. Problem areas.

TABLE VIII-4

ORGANIZATIONAL VIABILITY STATUS REPORT FOR THE GRENADINA HEALTH CENTERS

PROJECT: GRENADINA HEALTH CENTERS

DATE: October 1, 1974

ACCESS TO PURCHASABLES

1. Capacity for subsistance without Purchasables from external sources:

   Weak. Prospects for growth, and survival in the face of trauma are poor.

2. Linkage strength:

   Ministry of Health and AID sponsors agree with workers at the Health Centers about what the Health Centers are and do, and sponsers value the Health Centers. Therefore short-term funding prospects are good.

   However, sponsors and patients of the Health Centers disagree about what the Health Centers are and do. Therefore, over the long term, funding prospects are uncertain.

ACCESS TO IMAGE AND CONNOTATION

3. Current position in the client environment (how would the Health Centers be faring if the clients were the sponsors?):

   The stage is set for the Health Centers to introduce innovation:

   - Members have a focused idea of what they are about,
   - Members believe in what they are doing,
   - Clients have no focused notions which might conflict, and
   - Clients are enthusiastic about Health Centers.

   See #6 and #7 for possible areas for innovation.

4. Over the short term, is #3 on the up-swing or down-swing?

   High worker motivation will sustain itself over the short term because workers think what they are doing is appreciated by their patients.

5. Long term prognosis:

Workers do not know they are mis-perceived by patients. The organization will be poor at fitting actions to needs, and the odds are against successful innovation.

STRATEGIES FOR INCREASING IMAGE AND CONNOTATION

6. Areas where the organization can be trusted with new responsibilities:

Workers and potential patients both agree that the following are basic to what the Health Centers are and do:

Babies, Old People, Dental Care, Nurse, Doctor, Mothers Club

7. Areas of opportunity:

Clients think of the following as basic to the Health Centers, but workers do not (perhaps they should be exploited):

Big New Building, Ambulance, Record Keeping, Prescriptions

8. Problems:

Members think of the following as basic to Health Centers, but clients do not know about them:

Sanitation Inspector, Public Health Education, Poor People, Birth Control Pills

Derivation of the Viability Status Report

Now we will go through the Status Report and explain its derivation. First we will do it by dividing the Status Report into three parts; and then we will do it item by item.

Part I consists of items #1 and #2, and falls quite simply out of the Balance Sheet. Part I refers primarily to an organization's access to the resources grouped under "Purchasables" in the P/C/I Model.

Part II consists of items #3, #4, and #5, and is the product of what we call Interpretation Matrices. Part II refers primarily to an organization's access to Image and Connotation resources.

Part III consists of items #6, #7, and #8, and is the product of fine-grain examination of Image Data. Part III primarily identifies those strategies which would increase access to Image and Connotation resources.

A. PART I: ACCESS TO PURCHASABLES

A. PART I: ACCESS TO PURCHASABLES

Part I of the Organizational Viability Status Report consists of the following items:

- Capacity for subsistance without money from external sources;
- Linkage strength.

Capacity for Subsistence without Purchasables from external sources is read directly out of the "Endurance" cell. Note that for Grenadina Health Centers, "-" translates to the prognosis that "Prospects for growth and survival in the face of trauma are poor." Our logic is that an organization with insufficient liquidity to "go it alone" for three months, also could not respond to growth opportunities, or make the investment necessary to rebuild following a serious set-back.

Linkage strength can not be read directly from a single cell of the balance sheet. We believe that an organization's linkage with a given sector of its human environment is strong when:

- That sector agrees with the organization's members on what the organization is and does;
- That sector values what the organization is and does.

In the Grenadina Health Centers' over-simplified situation, the only important linkage is with the Sponsors (Ministry of Health and AID) who pay the workers, supply the medicines, donate the buildings, etc. Note that Sponsor/Member Image Agreement is strong (+), and that Sponsor Connotation is also high, and that therefore #2 of the Grenadina Status Report is basically positive. Pay special attention to the important qualification to the positive prognosis.

B. PART II: ACCESS TO IMAGE AND CONNOTATION

B. PART II: ACCESS TO IMAGE AND CONNOTATION

Part II of the Organizational Viability Status Report consists of the following items:

- Current position in the client environment (How would the organization be faring if the clients were the sponsors?)
- Over the short-term, is #3 on the up-swing or down-swing?
- Long-term viability prognosis.

Part II of the Status Report requires what we call Interpretation matrices (Tables VIII-5, VIII-6, and VIII-7).

Interpretation Matrices

Current position in the client environment is derived from four separate entries in the Balance Sheet: Member and Client Image Consensus, and Member and Client Connotation Strength. Table VIII-5 lists all possible permutations of strength (+) and weakness (-), and the corresponding diagnoses. Note that the Grenadina Health Centers Balance Sheet gives the following:

Image		Connotation	
Members	Clients	Members	Clients
+	-	+	+

And note that #3 on the Grenadina Status Report corresponds to the +-++ diagnosis on Table VIII-5.

"The stage is set for the Health Centers to introduce innovation."

The logic behind the above diagnosis is as follows. Members have a focused idea of what they are doing, and they think what they are doing is worthwhile, which are important pre-requisites to effective action. Clients

TABLE VIII-5

CURRENT POSITION IN THE CLIENT ENVIRONMENT

DIAGNOSIS

	DATA			
	Image Consensus		Strength	
	M	C*	M	C
Members and Clients Both Approve of the Organization				
a. Utopia for now	+	+	+	+
b. Stage is set for organizational innovation	+	-	+	+
c. Stage is set for organizational adaptation	-	+	+	+
d. Viable non-organization	-	-	+	+
Members Approve of the Organization, but Clients Do Not				
e. Missionary/Natives value conflict - stand off	+	+	+	-
f. Missionary/Natives value conflict - advantage organization because members have consensus	+	-	+	-
g. Missionary/Natives value conflict - advantage clients because they have consensus	-	+	+	-
h. Members believe a platitude	-	-	+	-
Clients Approve of the Organization, but Members Do Not				
i. Clients keep the organization in business against its will	+	+	-	+
j. Members/Clients are as ships passing in the night	+	-	-	+
k. Positive myth about the organization, or unintended positive impact	-	+	-	+
l. Clients believe a platitude	-	-	-	+
No One Approves of the Organization				
m. Wrong business	+	+	-	-
n. Lost cause, even the members have given up hope	+	-	-	-
o. Negative myth about you, or unintended negative impact	-	+	-	-
p. Hell for now	-	-	-	-

* M = Members; C = Clients

value the organization, and in addition they have no focused notions about the organization which might conflict. Therefore the organization need only introduce what it is doing and publicize it.

Following are the logics behind the diagnoses on Table VIII-5 Once you get the feel of the relationship between the +'s and the -'s, and the diagnoses, this list of explanations will be unnecessary. The best way to study the list below is to compare back and forth between it and Table VIII-5.

a. (++++) Utopia for Now:
Members and clients both have focused ideas about what the organization is and does, and they both value the organization. The diagnosis is "utopia for now",rather than "utopia forever",because we have no idea yet whether Members and Clients agree on what the organization is and does. Long-term viability depends on Image agreement, or at least Member accuracy at sensing what Clients think the organization is and does. Long-term viability is covered in a later Interpretation Matrix.

b. (+-++) Stage is Set for Organizational Innovation:
Members have a focused idea of what they are doing, and they think what they are doing is worthwhile, which are important pre-requisites to effective action. Clients value the organization, and in addition have no focused notions about the organization which might conflict. Therefore, the organization need only introduce what it is doing and publicize it.

c. (-+++) Stage is Set for Organizational Adaptation:
Members have no focused idea of what they are doing, but they think what they are doing is worthwhile anyway. Clients have a focused idea of the service the organization provides, and they value it. Members need only find out what Clients think the

organization does, and start doing it if they are not doing it already.

d. (--++) Viable Non-Organization:
There is no internal or external consensus on what the organization does, but the "organization" is valued anyway. Everyone likes it for a different reason. There are probably no grounds for "organizationalizing" this group of people, since they seem to be doing well without Image Consensus.

e. (+++-) Missionary/Natives Value Conflict -- Stand Off:
Members value what their organization does, but Clients do not. (This is what we call a "missionary/native" value conflict.) Members are in a strong position because they have a focused idea of what they are up to, but clients have only a diffuse objection to it.

f. (+-+-) Missionary/Native Value Conflict -- Advantage Organization Because Members Have Consensus:
Members value what their organization does, but Clients do not. Members are in a weak position because they disagree among themselves on what they are up to, while Clients have a focused objection to them.

g. (-++-) Missionary/Natives Value Conflict -- Advantage Clients Because They Have Consensus:
Members value what their organization does, but Clients do not. It looks like a stand-off, because the Members' focused idea of what the organization is and does, is balanced by a focused objection on the part of the Clients.

h. (--+-) Members Believe a Platitude:
No one knows what anyone is up to, but Members think it is a good idea anyway.

i. (++-+) Clients Keep the Organization in Business Against Its Will:
Everyone has a clear idea of what the organization is and does. Members do not like it, but Clients do.

j. (+--+) Members/Clients are as Ships Passing in the Night:
Members know what they are up to and think it's a bad idea. Clients do not have a focused idea of what the organization is and does, but think it's a good idea.

k. (-+-+) Positive Myth About the Organization, or Unintended Positive Impact;
Members have no focused idea of what the organization is and does, and think the whole thing is a waste. Clients think they know what the organization is and does, and like it

l. (---+) Clients Believe a Platitude
No one has a clear idea of what the organization is and does, but no one thinks it is a good idea.

m. (++--) Wrong Business
Everyone has a focused idea of what the organization is and does, but no one thinks it is a good idea.

n. (+---) Lost Cause: Even the Members Have Given Up Hope
Only the Members have a clear idea of what the organization is and does, but even they don't like it.

o. (-+--) Negative Myth About You, or Unintended Negative Impact
Only the Clients know, or think they know, what the organization is and does, and they don't like it.

p. (----) Hell For Now
No one has a focused idea of what the organization is and does, and no one thinks the organization is worth anything.

Over the Short Term, is Productivity on the Up-Swing or Down-Swing?

"Short-term" refers to the indefinite period in the near future where Purchasables, Image, and external Connotation remain approximately constant. It is our view, a hypothesis of course, that internal Connotation is, in general, the most volatile of an organization's resources, and determines its health over the short term. In addition, we feel that the most important determiner of internal Connotation is a perception of external Connotation. For example, workers in a Health Center who think their clients or patients appreciate them, value their organization and work productively in its behalf.

Short-term prognosis is derived from three separate entries in the Balance Sheet: Member Connotation, Client Connotation, and Member Sensitivity to Client Connotation.

Table VIII-6 lists all possible permutations of strength and weakness for the three entries, and the corresponding diagnoses. Note that the Grenadina Health Centers Balance Sheet gives the following:

MEMBER CONNOTATION	CLIENT CONNOTATION	MEMBER ACCURACY AT SENSING CLIENT CONNOTATION
+	+	+

And note that #4 on the Grenadina Status Report corresponds to the +++ diagnosis on Table VIII-6:

> High worker motivation will sustain itself over the short term because workers think what they are doing is appreciated by their patients.

TABLE VIII-6

SHORT-TERM PROGNOSIS:
IS PRODUCTIVITY ON THE UP-SWING OR DOWN-SWING?

DIAGNOSIS

DATA			
CONNOTATION		MEMBER ACCURACY AT SENSING CLIENT CONNOTATION	
MEMBERS	CLIENTS		
Members and Clients Both Approve of the Organization			
+	+	+	High member value will continue because it is perceived as reciprocated
+	+	-	High member value will subside because it is perceived as unrequited
Members Approve of the Organization, but Clients do not			
+	-	+	Martyrs. High member value will only last if members are masochistic
+	-	-	Do-gooders. High member value may go on forever since it is perceived as reciprocated The only way to stop them is cut off their Purchasables.
Clients Approve of the Organization, but Members do not			
-	+	+	Condescension, but maybe client value is infectious. It is hard to predict which way internal value will go.
-	+	-	Member value would increase dramatically if they realized they were appreciated. Otherwise, steady deterioration.
No One Approves of the Organization			
-	-	+	If ever members work against their organization this is where it happens.
-	-	-	Members think they are condescending, but really no one cares. It is hard to predict which way internal value will go.

Long Term Viability

It is our view that the best predictor of viability over the long term is Organizational Sensitivity to Image. An organization that does not sense the Client's image of it may provide demanded services over the short term. (Perhaps the people who set up the organization perceived Client needs accurately.) But as time passes and changes occur in Client needs, the probability that the organization will continue providing demanded services has to go down.

The above paragraph does not mean that all an organization needs to do to be viable is accurately sense its Client Image. In general, items 1 - 5 on the Viability Status Sheet can be thought of as a series of hurdles that an organization must surmount to become viable. And #5, Long Term Viability Prognosis, is the capstone.

An organization which perceives its Client Image accurately either:

- Agrees with Clients on what the organization is and does,

and/or

- Senses accurately how it is perceived by Clients.

It seems likely that viable change agent organizations might not agree with the Client on what they are and do. But they have a good idea how they are mis-perceived by Clients. The Long Term Viability Prognosis is derived from two entries in the Viability Balance Sheet:

- Member/Client Image Agreement;
- Member/Client Image Accuracy.

Table VIII-7 lists all possible permutations of strength (+) and weakness (-) on Member/Client Image Agreement and Member/Client Image Accuracy, along with interpretations. Note that the Grenadina Health Centers Balance

TABLE VIII-7

LONG TERM VIABILITY PROGNOSIS

	MEMBERS/ CLIENTS IMAGE AGREEMENT	MEMBERS/ CLIENTS IMAGE ACCURACY	INTERPRETATION
a.	+	+	Valid transactions* over the long term. High viability. Members and clients agree on what is exchanged and they are likely to continue agreeing even after what is being exchanged changes.
b.	+	-	Valid transactions over the short term. Members and clients agree on what is exchanged, but there is no assurance they will continue agreeing after what is being exchanged changes, as it must as conditions, needs, etc., change.
c.	-	+	Invalid transactions, but there is hope for the future. Members and clients do not agree about what the clients are getting, but members know what clients think they are getting. This may be the ideal change agent situation.
d.	-	-	Invalid transactions, no hope for the future. Members and clients do not agree about what the clients think they are getting.

* A valid transaction is where members and clients agree on what the organization does for whom, how and why. An invalid transaction is where members and clients do not agree. An example would be a Health Center that thinks clients come for health information, but really they come to socialize.

Sheet gives the following:

MEMBER/CLIENT IMAGE AGREEMENT	MEMBER/CLIENT IMAGE ACCURACY

And note that #5 on the Grenadina Status Report is a more specific paraphrase of the "--" diagnosis on Table VIII-7:

> Workers do not know they are mis-perceived by patients. The organization will be poor at fitting actions to needs, and odds are against successful innovation. (Remember that in #3 we said that "The stage is set to introduce innovation.")

Valid Transactions

In Table VIII-7 the term "valid transaction" is used several times. In the context of Table VIII-7, a valid transaction is where Members and Clients agree on what the organization is and does. An invalid transaction is where Members and Clients do not agree. An example of non-agreement, and an invalid transaction, would be a health center that thinks clients come for health information, but really they come to socialize.

Image Accuracy

Member/Client Image Accuracy is seen, in Table VIII-7, as a means for:

- Prolonging valid transactions;
- Rectifying invalid transactions.

Therefore, high Agreement leads to longer term viability when it is accompanied by high Accuracy. A health center whose Members think Clients come "just to socialize" when really they come for family planning information runs the risk of tampering with a valid transaction.

And low agreement is more likely to be rectified in the direction of "valid transactions" when it is accompanied by high Accuracy. A health center whose Clients come "just to socialize" is more likely to change things if Members are sensitive to why the Clients come.

C. PART III: STRATEGIES FOR INCREASING ACCESS TO IMAGE AND CONNOTATION

C. PART III OF THE VIABILITY STATUS REPORT: STRATEGIES FOR INCREASING ACCESS TO IMAGE AND CONNOTATION

Part III of the Viability Status Report consists of the following items:

- Areas where the organization can be trusted with new responsibilities;
- Areas of opportunity;
- Problems.

Part III is not derived from the Viability Balance Sheet, but rather from fine grain examination of Image data. Part III is derived according to the following scheme from Member/Client Image Data:

WHEN CLIENT CONNOTATION IS HIGH:

Areas of Member/Client Image Agreement	= Areas where the organization can be trusted with new responsibility. Members and Clients both agree that these areas are basic to the organization, and Clients value the organization.
Areas of Member/Client Image Disagreement	
• Areas listed often by Clients, but seldom by Members	= Opportunities to be exploited. Clients think these areas are basic to an organization they value, whereas Members do not think of them as basic. may be seeing potential in the organization that members are ignoring.
• Areas listed often by Members, but seldom by Clients	= Problems. Members think of these areas as basic to the organization, but Clients are not getting the message.

WHEN CLIENT CONNOTATION IS LOW:

Areas of Member/Client Image Agreement = Serious problems. Members and Clients both agree that these areas are basic to the organization, but Clients do not value the organization.

Areas of Member/Client Image Disagreement

- Areas listed often by Clients, but seldom by Members = Myths to dispel, or unintended negative impact. Clients see these areas as basic to an organization they do not value, but Members do not see them as basic.
- Areas listed often by Members, but seldom by Clients = Problems. Members think of these areas as basic to the organization, but Clients are not getting the message.

Tables VIII-8 and VIII-9 show areas of Member/Client Agreement and Disagreement for Grenadina Health Centers. Note that the interpretations correspond to those given above under High Client Connotation. And note also that the interpretations are repeated under items #6, #7, and #8 of the Organizational Viability Status Report for Grenadina Health Centers.

TABLE VIII-8

GRENADINA HEALTH CENTERS

AREAS OF MEMBER/CLIENT IMAGE AGREEMENT:

AREAS WHERE THE HEALTH CENTERS CAN BE TRUSTED WITH NEW RESPONSIBILITY*

PROJECT: GRENADINA HEALTH CENTERS

DATE: October 1, 1974

	MEMBERS (n=50)	CLIENTS (n=100)
Doctor	50	90
Nurse	50	80
Babies	50	42
Old People	30	80
Social Workers	50	26
Dental Care	30	40

* If client connotation were low, these would be problem areas rather than areas of responsibility. As is presented in a following section, client connotation for the Grenadina Health Centers is high.

TABLE VIII-9

GRENADINA HEALTH CENTERS

AREAS OF MEMBER CLIENT IMAGE DISAGREEMENT

PROJECT: GRENADINA HEALTH CENTERS

DATE: October 1, 1974

A. MEMBERS - NO, CLIENTS - YES = OPPORTUNITIES*

	MEMBERS (n=50)	CLIENTS (n=100)
Big New Building	0	73
Ambulance	0	54
Keep Records	0	54
Prescriptions	0	34
Milk	0	42

B. MEMBERS - YES, CLIENTS - NO = PROBLEMS

	MEMBERS (n=50)	CLIENTS (n=100)
Sanitation Inspector	50	0
Public Health Education	50	20
Poor People	40	4
Birth Control Pills	50	12

* If client connotation were low, these would be "myths" to dispel, rather than "opportunities."

APPENDIX A

CASE STUDIES

APPENDIX A

CASE STUDIES

To demonstrate how evaluation of organizational viability works, we have generated data for health centers in four imaginary countries: Grenadina, Faroffistan, Bali Hai, and Disneysia. The data are based, in part, on real AID projects.

The Grenadina Case Study has been presented in the body of this volume, along with explanation. In this section the remaining three Case Studies are presented. The major lessons to be learned will come from comparing among the Case Studies to see how different situations lead to different management strategies. Table A-1 contains background information on the Case projects.

TABLE A-1

BACKGROUND INFORMATION ON THE THREE CASE STUDIES

COUNTRY	REGION	# OF HEALTH CENTERS	AVERAGE # OF MEMBERS PER CENTER	SPONSORS	AGE OF HEALTH CENTERS
Faroffistan	Central Asia	71	8.2	AID	3 yrs.
Bali Hai	Far East	93	9.0	AID and Ministry	10 yrs.
Disneysia	Pacific Islands	114	4.9	Ministry of Health	5 yrs.

HEALTH CENTERS' DOCTRINE AS PERCEIVED BY SPONSORS, MEMBERS, AND CLIENTS

COUNTRY	SPONSORS	MEMBERS	CLIENTS	COMMENT
Faroffistan	Preventive Medicine	No Focus	Curative Medicine	Tug-of-war over members between Sponsors and Clients.
Bali Hai	Preventive Medicine	Curative Medicine	Curative Medicine	Sponsors have their heads in the clouds, and ignore reality.
Disneysia	Preventive Medicine	Preventive Medicine	Curative Medicine	Members agree with Sponsors because they "know which side of the bread the butter's on."

FAROFFISTAN HEALTH CENTERS CASE STUDY

FAROFFISTAN HEALTH CENTERS

BACKGROUND INFORMATION

REGION	# OF HEALTH CENTERS	AVERAGE # OF MEMBERS PER CENTER	SPONSOR	AGE OF HEALTH CENTERS
Central	71	8.2	AID	3 yrs.

DOCTRINE AS PERCEIVED BY SPONSORS, MEMBERS, AND CLIENTS

SPONSORS	MEMBERS	CLIENTS	COMMENT
Preventive Medicine	No Focus	Curative Medicine	Tug-of-war over members between Sponsors and Clients.

FAROFFISTAN HEALTH CENTERS PARTIAL LOGICAL FRAMEWORK

NARRATIVE	OBJECTIVELY VERIFIABLE INDICATORS	TARGETS
GOAL: Improved health in rural Faroffistan	- Life expectancy - Infant Mortality - Morbidity - Health indices	Not Measured Here
INTERIM GOAL: Current specified health problems solved: - pre-natal health - infant health	(determined by sponsors) - Still births - Miscarriages - Infant malnutrition - Incidence of diptheria and other childhood diseases	Not Measured Here
PURPOSE: A viable health organization that will detect and solve future only generally specified health problems.	Purchasables/Endurance = 3.9 Connotation/Potential Energy Members = .81 Clients = .80 Sponsors = 3.5 Image/Consensus Members = 4 Clients = 12 Sponsors = 14 Sensitivity: Member/Client Connotation = Match Image = .89	< 3 months < 3.0 > .5 > 3.0 < 10 > 10 > 10 = Match > .50
OUTPUTS: 1. EFFECTIVENESS: Magnitudes of health service production that suggest effective solution to pre-natal and infant health and mortality problems in rural Grenadina	5,010 patients served. 20,000 pints of milk given out 200 house visits by the sanitation inspector 30 Mothers Club meetings 180 interviews by the social worker 4,028 records started and maintained 193 people referred to the dentist 1,200 birth control pills dispensed 190 pregnant women given pre-natal care & instructions 320 family planning devices given out $6,000 drugs dispensed $180 educational supplies (family planning literature) handed out 400 emergencies attended to	(determined by Sponsors) > 4,000 + = 20,000 + < 500 - > 25 + < 400 - < 5,000 - < 200 - < 4,000 - < 200 - > 300 + > $2,000 + > $150 + none
2. VIABILITY: Leadership Doctrine, Programs, Resources, Structure, Linkages.	Check lists such as Thorson's "Institutional Profile" (Conference on Institution Building, AID, 1969)	Not Measured Here

NOTE: The heavy line highlights the evaluation possibilities suggested here.

ORGANIZATIONAL VIABILITY BALANCE SHEET

PROJECT: FAROFFISTAN HEALTH CENTERS

DATE: October 1, 1974

	PURCHASABLES	CONNOTATION	IMAGE
INTERNAL	Cash on Hand = $2,400 Monthly Salaries = $1,100	Members = .81(< 3.0) (-)	Members = 4(< 10)*(-)**
EXTERNAL	Receivables = $3,300 Firm Backlog = $2,800 Monthly Expenses = $1,000 (supplies, etc.)	Sponsors = 3.2(> 3.0) (+) Clients = .80(> .50) (+)	Sponsors = 14(> 10) (+) Clients = 12(> 10) (+)
SENSITIVITY	Endurance: $\frac{\$2400 + \$3300 + \$2800}{\$2,200} = 3.9$ 3.9 months (> 3 months) (+)	Agreement: Member/Client = (-)	Agreement: Member/Sponsor = .04(< .50) (-) Member/Client = .24(< .50) (-) Sponsor/Client = .21(< .50) (-)
	Figures are averages for 50 Health Centers.	Accuracy: Member/Client = (+)	Accuracy: Member/Client = .89(> .50) (+)

* All numbers in parentheses refer to the criteria for judging whether an organization's current position or an indicator suggests viability. These criteria were identified in Chapter III in a discussion of Computation Formulae.

** The signs (-) and (+) indicate respectively a positive or negative viability assessment.

PROJECT: FAROFFISTAN HEALTH CENTERS

DATE: October 1, 1974

ORGANIZATIONAL VIABILITY STATUS REPORT

ACCESS TO PURCHASABLES

1. Capacity for subsistance without Purchasables from external sources:

   Strong. There are sufficient purchasable resources for growth, and survival in the face of trauma.

2. Linkage strength:

   Sponsor's value the Health Centers, therefore short-term funding prospects are good. However, sponsors disagree with members and clients about what Health Centers are and do. Therefore, over the longer term, funding prospects are very uncertain. The Sponsor-Health Clinic linkage needs attention.

ACCESS TO CONNOTATION AND IMAGE

3. Current position in the client environment:

   Positive myth about the organization, or unintended positive impact, or new staff -- good, old organization.

   Don't do anything until you find out what it is clients think they like about you. Learn from them.

4. Over the short-term, is #3 on the up-swing or down-swing?

   Condescension (members know they are appreciated but do not think what they are doing is worthwhile). Maybe client connotation is infectious. It is hard to predict which way internal connotation will go.

5. Long-term prognosis:

   Invalid transactions, but there is hope for the future, because members know what clients think of them although they don't agree.

PROJECT: Faroffistan Health Centers
DATE: October 1, 1974

SUMMARY WORKSHEET ON IMAGE: MEMBERS

SUMMARY OF RESPONSES		
NUMBER GIVING RESPONSES	RESPONSES	NUMBER OF TIMES RESPONSES GIVEN
35	Doctor	35
25	Nurse Medicine	25 25
20	Anybody Newly Married	20 20
15	Public Health Education Milk Pregnant Emergency Pills	15 15 15 15 15
10	Free Medicine Real Medicine Keep Functioning X-Ray Machine	10 10 10 10
5	Poor People Vaccines When Slaughtering Laboratory Cure Disease	5 5 5 5 5
# OF INDIVIDUALS RESPONDING: n=35		TOTAL NUMBER OF RESPONSES: $\Sigma x=265$

SUMMARY OF COMPUTATIONS	
$n = 35$ $\Sigma x = 265$ $\Sigma x^2 = 1(35^2) + 2(25^2) + 2(20^2) + 5(15^2) + 4(10^2) + 5(5^2)$ $\Sigma x^2 = 4,900$	Image/Concensus $= \Sigma x^2/n^2$ $= 4,900/1225$ $= 4 < 10$

PROJECT: Faroffistan Health Centers
DATE: October 1, 1974

SUMMARY WORKSHEET ON IMAGE: SPONSORS

SUMMARY OF RESPONSES		
NUMBER GIVING RESPONSES	RESPONSES	NUMBER OF TIMES RESPONSES GIVEN
10	Prevent Disease Public Health Education Doctor Nurse Social Worker Birth Control Pills Free Medicine	10 10 10 10 10 10 10
9	AID Poor People Keep Functioning	9 9 9
8	Family Planning Devices Mothers Club Babies People With No Money Record Keeping	8 8 8 8 8
7	School Children	7
6	Tuberculosis	6
4	Government of Faroffistan	4
1	Cure Disease	1
# OF INDIVIDUALS RESPONDING: n=10		TOTAL NUMBER OF RESPONSES: Σx=155

SUMMARY OF COMPUTATIONS	
$n = 10$ $\Sigma x = 155$ $\Sigma x^2 = 7(10^2) + 3(9^2) + 5(8^2) + 1(7^2) + 1(6^2) + 1(4^2) + 1(1)^2$ $\Sigma x^2 = 1365$	Concensus = $\Sigma x^2 / 1^2$ = 1365/100 = 13.65 > 10

PROJECT: Faroffistan Health Centers
DATE: October 1, 1974

SUMMARY WORKSHEET ON IMAGE: CLIENTS

SUMMARY OF RESPONSES		
NUMBER GIVING RESPONSES	RESPONSES	NUMBER OF TIMES RESPONSES GIVEN
50	Set Bones Sick Broken Bones	50 50 50
48	Emergency	48
47	Ambulance	47
45	Free Medicine	45
42	Big New Building	42
40	X-Rays Tooth Ache Nurse Quinine	40 40 40 40
37	Operating Room	37
36	The People	36
23	Dentist	23
20	Mothers Club	20
18	Cure Disease	18
15	Babies	15
# OF INDIVIDUALS RESPONDING: n=50		TOTAL NUMBER OF RESPONSES: Σx=697

SUMMARY OF COMPUTATIONS	
$n = 50$ $\Sigma x = 697$ $\Sigma x^2 = 3(50^2) + 1(48^2) + 2(47^2) + 2(45^2) + 1(42^2) + 4(40^2) + 1(37^2) + 1(36^2) + 1(23^2) + 1(20^2) + 1(18^2) + 1(15^2)$ $\Sigma x^2 = 29,283$	Image/Concensus $= \Sigma x^2/n^2$ $= 29,283/2,500$ $= 12 > 10$

PROJECT: FAROFFISTAN HEALTH CENTERS

DATE: October 1, 1974

ANALYSIS WORKSHEET:

MEMBER/CLIENT IMAGE AGREEMENT

	MEMBERS	CLIENTS	CLIENTS ADJUSTED	AGREEMENTS
Free Medicine	10	45	18	10
Emergency	15	48	19	15
Doctor	35	45	18	18
Nurse	25	40	16	16
Keep Functioning				
Cure Disease	5	18	7	5
*				
Σx =	265	697	k=.40	64

COMPUTATION:

(1) k = 265/697 = .40

(2) Agreement = 64/265 = .24(< .50)**

* The answers listed here include only those where there was agreement. Wherever 0 would appear in the client or member column, the answer is not reproduced. However these additional answers are included as part of the numerical answer total for each group.

** Criteria level for determining viability prognosis is included in parenthesis.

PROJECT: FAROFFISTAN HEALTH CENTERS

DATE: October 1, 1974

ANALYSIS WORKSHEET:

MEMBER/CLIENT IMAGE ACCURACY

ANSWERS	MEMBERS	CLIENTS	CLIENTS ADJUSTED	ACCURACIES
Set Bones	30	50	38	30
Free Medicine	35	45	34	34
Xrays	30	40	30	30
Ambulance	25	47	36	25
Mothers Club	10	20	15	10
Babies	30	15	11	11
Sick People	30	50	38	30
Broken Bones	25	50	19	19
Fever	30	47	36	30
Emergency	25	48	36	25
Tooth Ache	35	40	30	30
Doctor	35	45	34	34
Dentist	35	23	17	17
Nurse	15	40	30	15
Big New Building	25	42	32	25
Laboratory	30	40	30	30
Operating Room	30	37	28	28
Σ =	531	697	k .76	423

COMPUTATIONS:

(1) k = 531/697 = .76

(2) accuracy = 423/531 = .89(> .50)

PROJECT: FAROFFISTAN HEALTH CENTERS

DATE: October 1, 1974

ANALYSIS WORKSHEET:

CONNOTATION/MEMBERS

QUESTIONS	DEFINITELY 0	VERY LIKELY 1	SLIGHT LIKELIHOOD 2	NOT LIKELY 3	VERY UNLIKELY 4	DEFINITELY NOT 5	
1	37	13					= 50
2	28	12	10				= 50
3	39	8	3				= 50
4	29	12	9				= 50
5		28	12	10			= 50
6	37	13					= 50
7	28	12	10				= 50
8	39	8	3				= 50
9	29	12	9				= 50
10		28	12	10			= 50
11	29	12	9				= 50
12	39	8	3				= 50
13	37	13					= 50
14	29	12	9				= 50
15	28	12	10				= 50
16		39	8	3			= 50
17		29	12	9			= 50
18		37	13				= 50
19	29	12	9				= 50
20			39	8	3		= 50
Σ =	457	320	180	40	3		= 1000
	X 0	X 1	X 2	X 3	X 4	X 5	(X answer value)
	0	320	360	120	12	0	= 812

(1) Connotation = 812/1000 = .81 (= 3.0)

BALI HAI HEALTH CENTERS CASE STUDY

BALI HAI HEALTH CENTERS

BACKGROUND INFORMATION

REGION	# OF HEALTH CENTERS	AVERAGE # OF MEMBERS PER CENTER	SPONSORS	AGE OF HEALTH CENTERS
Far East	93	9.0	AID and Ministry of Health	10 yrs.

DOCTRINE AS PERCEIVED BY SPONSORS, MEMBERS, AND CLIENTS

SPONSORS	MEMBERS	CLIENTS	COMMENT
Preventive Medicine	Curative Medicine	Curative Medicine	Sponsors have their heads in the clouds, and ignore reality.

BALI HAI HEALTH CENTERS PARTIAL LOGICAL FRAMEWORK

NARRATIVE	OBJECTIVELY VERIFIABLE INDICATORS	TARGETS
GOAL: Improved health in rural Bali Hai	- Life expectancy - Infant Mortality - Morbidity - Health indices	Not Measured Here
INTERIM GOAL: Current specified health problems solved: - pre-natal health - infant health	(determined by sponsors) - Still births - Miscarriages - Infant malnutrition - Incidence of diptheria and other childhood diseases	Not Measured Here
PURPOSE: A viable health organization that will detect and solve future only generally specified health problems.	Purchasables/Endurance = 3.9 Connotation/Potential Energy Members = 3.4 Clients = .91 Sponsors = 1.5 Image/Consensus Members = 11 Clients = 6 Sponsors = 14 Sensitivity: Member/Client Connotation = Match Image = .91	> 3 months > 3.0 > .5 < 3.0 > 10 < 10 > 10 = Match > .50
OUTPUTS: 1. EFFECTIVENESS: Magnitudes of health service production that suggest effective solution to pre-natal and infant health and mortality problems in rural Grenadina	6,700 patients served. 0 pints of milk given out 0 house visits by the sanitation inspector 30 Mothers Club meetings 31 interviews by the social worker 4,020 records started and maintained 400 people referred to the dentist 120 birth control pills dispensed 190 pregnant women given pre-natal care & instructions 320 family planning devices given out $11,000 drugs dispensed $180 educational supplies (family planning literature) handed out 400 emergencies attended to	(determined by Sponsors) > 4,000 + = 20,000 - < 500 - > 25 + < 400 - < 5,000 - > 200 + < 4,000 - < 200 - > 300 + > $2,000 + > $150 + None
2. VIABILITY: Leadership Doctrine, Programs, Resources, Structure, Linkages.	Check lists such as Thorson's "Institutional Profile" (Conference on Institution Building, AID, 1969)	Not Measured Here

NOTE: The heavy line highlights the evaluation possibilities suggested here.

ORGANIZATIONAL VIABILITY BALANCE SHEET

PROJECT: BALI HAI HEALTH CENTERS

DATE: October 1, 1974

	PURCHASABLES	CONNOTATION	IMAGE
INTERNAL	Cash on Hand = $2,400 Monthly Salaries = $1,100	Members = 3.4(> 3.0) (+)	Members = 11(> 10) (+)
EXTERNAL	Receivables = $3,300 Firm Backlog = $2,800 Monthly Expenses = $1,000 (supplies, etc.)	Sponsors = 1.5(< 3.0) (-) Clients = .91(> .50) (+)	Sponsors = 14(> 10) (+) Clients = 6(< 10) (-)
SENSITIVITY	Endurance: $\frac{\$2400 + \$3300 + \$2800}{\$2200} = 3.9$ 3.9 months (> 3 months) Figures are averages for 50 Health Centers	Agreement: Members/Clients = (+) Accuracy: Members/Clients = (+)	Agreement: Members/Sponsors = .38(< .50) (-) Members/Clients = .91(> .50) (+) Sponsors/Clients = .2(< .50) (-) Accuracy: Members/Clients = .91(> .50) (+)

* All numbers in parentheses refer to the criteria for judging whether an organization's current position on an indicator suggests viability. These criteria were identified in Chapter III in discussion of Computation Formulae.

** The signs (+) and (-) indicate respectively a positive or negative assessment.

PROJECT: BALI HAI HEALTH CENTERS

DATE: October 1, 1974

ORGANIZATIONAL VIABILITY STATUS REPORT

ACCESS TO PURCHASABLES

1. Capacity for subsistance without Purchasables from external sources:

   Strong. There are sufficient purchasables resources for growth, and survival in the face of trauma.

2. Prospects for future funding:

   Sponsors do not value the organization, therefore short-term funding could be in danger.

   However, sponsors disagree with members and clients about what the organization is and does, which means there is hope. Maybe sponsors would value the organizations if they knew the truth.

   Maybe Health Center leaders can convince sponsors that curative medicine is still the way to go in spite of new theories about prevention.

ACCESS TO CONNOTATION AND IMAGE

3. Current position in the client environment:

   Utopia for now.

4. Over the short-term, is #3 on the up-swing or down-swing?

   High member value will last because it is perceived as reciprocated.

5. Long-term prognosis:

   Valid transactions over the long-term.

PROJECT: Bali Hai Health Centers
DATE: October 1, 1974

SUMMARY WORKSHEET ON IMAGE: MEMBERS

SUMMARY OF RESPONSES		
NUMBER GIVING RESPONSES	RESPONSES	NUMBER OF TIMES RESPONSES GIVEN
50	Set Bones Sick People Fever	50 50 50
45	Free Medicine Ambulance Tooth Ache Quinine	45 45 45 45
40	X-Rays Broken Bones Doctor	40 40 40
35	Emergency Nurse Big New Building Operating Room	35 35 35 35
30	Babies Social Worker	30 30
15	Mothers Club	15
10	Dentist	10
# OF INDIVIDUALS RESPONDING: n=50		TOTAL NUMBER OF RESPONSES: $\Sigma x=675$

SUMMARY OF COMPUTATIONS	
$n = 50$ $\Sigma x = 675$ $\Sigma x^2 = 3(50^2) + 4(45^2) + 3(40^2) + 4(35^2) + 2(30^2) + 1(15^2) + 1(10^2)$ $\Sigma x^2 = 27,375$	Image/Concensus $= \Sigma x^2/n^2$ $= 27,375/2,500$ $= 11 > 10$

PROJECT: Bali Hai Health Centers
DATE: October 1, 1974

SUMMARY WORKSHEET ON IMAGE: SPONSORS

SUMMARY OF RESPONSES		
NUMBER GIVING RESPONSES	RESPONSES	NUMBER OF TIMES RESPONSES GIVEN
10	Prevent Disease Public Health Education Doctor Nurse Social Worker Birth Control Pills Free Medicine	10 10 10 10 10 10 10
9	AID Poor People Keep Functioning	9 9 9
8	Family Planning Devices Mothers Club Babies People With No Money Record Keeping	8 8 8 8 8
7	School Children	7
6	Tuberculosis	6
4	Government of Bali Hai	4
1	Cure Disease	1
# OF INDIVIDUALS RESPONDING: n=10		TOTAL NUMBER OF RESPONSES: Σx=155

SUMMARY OF COMPUTATIONS	
$n = 10$ $\Sigma x = 155$ $\Sigma x^2 = 7(10^2) + 3(9^2) + 5(8^2) + 1(7^2) + 1(6^2) + 1(4^2) + 1(1)^2$ $\Sigma x^2 = 1365$	Image/Concensus $= \Sigma x^2/n^2$ $= 1365/100$ $= 14 > 10$

PROJECT: Bali Hai Health Centers
DATE: October 1, 1974

SUMMARY WORKSHEET ON IMAGE: CLIENTS

SUMMARY OF RESPONSES		
NUMBER GIVING RESPONSES	RESPONSES	NUMBER OF TIMES RESPONSES GIVEN
50	Set Bones Sick Broken Bones	50 50 50
48	Emergency	48
47	Ambulance Fever	47 47
45	Free Medicine Doctor	45 45
42	Big New Building	42
40	X-Rays Tooth Ache Nurse Quinine	40 40 40 40
37	Operating Room	37
36	The People	36
23	Dentist	23
20	Mothers Club	20
18	Cure Disease	18
15	Babies	15
# OF INDIVIDUALS RESPONDING: n=50		TOTAL NUMBER OF RESPONSES: $\Sigma x = 697$

SUMMARY OF COMPUTATIONS

$n = 50$

$\Sigma x = 697$

$\Sigma x^2 = 3(50^2) + 1(48^2) + 2(47^2) + 2(45^2) + 1(42^2) + 4(40^2) + 1(37^2) + 1(36^2) + 1(23^2) + 1(20^2) + 1(18^2) + 1(15^2)$

$\Sigma x^2 = 29,283$

Image/Concensus = $\Sigma x^2/n^2$

$= 29,283/2,500$

$= 12 > 10$

PROJECT: BALI HAI HEALTH CENTERS

DATE: October 1, 1974

ANALYSIS WORKSHEET:

MEMBERS/CLIENTS IMAGE AGREEMENT

ANSWERS	MEMBERS	CLIENTS	CLIENTS ADJUSTED	AGREEMENTS
Set Bones	50	50	48	48
Free Medicine	45	50	48	45
X Rays	40	50	48	40
Ambulance	45	50	48	45
Mothers Club	15	20	19	15
Babies	30	15	15	15
Sick People	50	50	48	48
Broken Bones	40	50	48	40
Fever	50	47	46	46
Emergency	35	48	47	35
Tooth Ache	45	40	39	39
Doctor	40	45	44	40
Dentist	10	23	22	10
Nurse	35	40	39	35
Big New Building	35	42	41	35
Quinine	45	40	39	39
Operating Room	35	37	36	35
Σ =	675	697	k=.97	610

COMPUTATIONS:

(1) k = 675/697 = .97

(2) Agreement = 610/675 = .91(> .50)**

* The answers listed here include only those where there was agreement. Whereever 0 would appear in the client or member column, the answer is not reproduced. However these additional answers are included as part of the numerical answer total for each group.

** Criteria level for determining viability prognosis is included in parenthesis.

PROJECT: BALI HAI HEALTH CENTERS

DATE: October 1, 1974

ANALYSIS WORKSHEET:

MEMBERS/CLIENTS IMAGE ACCURACY

ANSWERS	MEMBERS	CLIENTS	CLIENTS ADJUSTED	ACCURACY
Set Bones	50	50	48	48
Free Medicine	45	50	48	45
X Rays	40	50	48	40
Ambulance	45	50	48	45
Mothers Club	15	20	19	15
Babies	30	15	15	15
Sick People	50	50	48	48
Broken Bones	40	50	48	40
Fever	50	47	46	46
Emergency	35	48	47	35
Tooth Ache	45	40	39	39
Doctor	40	45	44	40
Dentist	10	23	22	10
Nurse	35	40	39	35
Big New Building	35	42	41	35
Quinine	45	40	39	39
Operating Room	35	37	36	35
Σ =	675	697	k=.97	610

COMPUTATIONS:

(1) k = 675/697 = .97

(2) Accuracy = 610/675 = .91(> .50)

PROJECT: BALI HAI HEALTH CENTER

DATE: October 1, 1974

ANALYSIS WORKSHEET:

DO/SHOULD OVERLAP

	SHOULD	DO	ADJUSTED DO	OVERLAPS
Set Bones	50	50	48	48
Free Medicine	45	50	48	45
X Rays	40	50	48	40
Ambulance	45	50	48	45
Mothers Club	15	20	19	15
Babies	30	15	15	15
Sick People	50	50	48	48
Broken Bones	40	50	48	40
Fever	50	47	46	46
Emergency	35	48	47	35
Tooth Ache	45	40	39	39
Doctor	40	45	44	40
Dentist	10	23	22	10
Nurse	35	40	39	35
Big New Building	35	42	41	35
Quinine	45	40	39	39
Operating Room	35	37	36	35
Σ =	675	697	k=.97	610

COMPUTATIONS:

(1) k = 675/697 = .97

(2) Do/Should Overlap = 610/675 = .91 (> .50)

DISNEYSIA HEALTH CENTERS CASE STUDY

DISNEYSIA HEALTH CENTERS

BACKGROUND INFORMATION

REGION	# OF HEALTH CENTERS	AVERAGE # OF MEMBERS PER CENTER	SPONSORS	AGE OF HEALTH CENTERS
Pacific Islands	114	4.9	Ministry of Health	5 yrs.

DOCTRINE AS PERCEIVED BY SPONSORS, MEMBERS, AND CLIENTS

SPONSORS	MEMBERS	CLIENTS	COMMENT
Preventive Medicine	Preventive Medicine	Curative Medicine	Members agree with Sponsors because they "know which side of the bread the butter's on".

DISNEYSIA HEALTH CENTERS PARTIAL LOGICAL FRAMEWORK

NARRATIVE		OBJECTIVELY VERIFIABLE INDICATORS	TARGETS
GOAL:	Improved health in rural Disneysia	+ Life expectancy - Infant Mortality - Morbidity - Health indices	Not Measured Here
INTERIM GOAL: Current specified health problems solved: - pre-natal health - infant health		(determined by sponsors) - Still births - Miscarriages - Infant malnutrition - Incidence of diptheria and other childhood diseases	Not Measured Here
PURPOSE:	A viable health organization that will detect and solve future only generally specified health problems.	Purchasables/Endurance = 1.7 Connotation/Potential Energy Members = 3.7 Clients = .91 Sponsors = 3.5 Image/Consensus Members = 17 Clients = 12 Sponsors = 14 Sensitivity: Member/Client Connotation = Match Image = .80	< 3 months > 3.0 > .5 > 3.0 > 10 > 10 > 10 = Match < .50
OUTPUTS:	1. EFFECTIVENESS: Magnitudes of health service production that suggest effective solution to pre-natal and infant health and mortality problems in rural Grenadina		(determined by Sponsors)
		2,028 patients served.	< 4,000 -
		6,000 pints of milk given out	< 20,000 -
		200 house visits by the sanitation inspector	< 500 -
		30 Mothers Club meetings	> 25 +
		150 interviews by the social worker	< 400 -
		4,028 records started and maintained	< 5,000 -
		193 people referred to the dentist	< 200 -
		200 birth control pills dispensed	< 4,000 +
		80 pregnant women given pre-natal care & instructions	< 200 -
		63 family planning devices given out	< 300 -
		$4,000 drugs dispensed	> $2,000 +
		$180 educational supplies (family planning literature) handed out	> $150 +
		400 emergencies attended to	None
	2. VIABILITY: Leadership Doctrine, Programs, Resources, Structure, Linkages.	Check lists such as Thorson's "Institutional Profile" (Conference on Institution Building, AID, 1969)	Not Measured Here

NOTE: The heavy line highlights the evaluation possibilities suggested here.

ORGANIZATIONAL VIABILITY BALANCE SHEET

PROJECT: DISNEYSIA HEALTH CENTERS

DATE: October 1, 1974

	PURCHASABLES	CONNOTATION	IMAGE
INTERNAL	Cash on Hand = $650 Monthly Salaries = $1,125	Members = 3.7(> 3.0) (+)	Members = 17(> 10) (+)
EXTERNAL	Receivables = $514 Firm Backlog = $1,100 Monthly Expenses = $71 (supplies, etc.)	Sponsors = 3.5(> 3.0) (+) Clients = .91(> .50) (+)	Sponsors = 14(> 10) (+) Clients = 12(> 10) (+)
SENSITIVITY	Endurance: $\frac{\$650 + \$514 + \$1,100}{\$1,196} = 1.7$ 1.7 months < 3 months (-) Figures are averages for 50 Health Centers.	Agreement: Member/Client = (+) Accuracy: Member/Client = (-)	Agreement: Member/Sponsor = .70(> .50) (+) Member/Client = .33(< .50) (-) Sponsor/Client = .28(< .50) (-) Accuracy: Member/Client = .80(> .50) (+)

* All numbers in parentheses refer to the criteria for judging whether an organization's current position on an indicator suggests viability. These criteria were identified in Chapter III in a discussion of Computation Formulae.

** The signs (+) and (-) indicate respectively a positive or negative viability assessment.

PROJECT: DISNEYSIA HEALTH CENTERS

DATE: October 1, 1974

ORGANIZATIONAL VIABILITY STATUS REPORT

ACCESS TO PURCHASABLES

1. Capacity for subsistance without Purchasables from external sources:

   Weak. Prospects are poor for growth, and for survival in the face of trauma.

2. Linkage strength:

   Sponsors value the organization and agree with members about what Health Centers are and do.

   However, sponsors and patients disagree about what Health Centers are and do; therefore, long-term funding prospects are uncertain.

ACCESS TO CONNOTATION AND IMAGE

3. Current position in the client environment:

   Utopia for now. (But watch out -- see below.)

4. Short-term prognosis: is #3 on the up-swing or down-swing?

   Internal connotation will not last because it is not perceived as reciprocated.

5. Long-term prognosis:

   Invalid transactions. Members see themselves as giving preventive medicine, but clients perceive them in curative terms.

   It is hard to imagine this situation as remaining in equilibrium for any length of time. At present, curative and preventive images overlap sufficiently to provide Health Centers with a market, but that may only be temporary.

   If the situation is not to deteriorate:

   a) Health Centers must face up to the fact that they are really providing curative services, or

   b) They must change client values (attitudes about health.).

The former strategy goes against sponsor expectation and may jeopardize funding. And the latter strategy is very difficult.

There is hope, since Health Center members know how they are perceived by clients (high member/client image accuracy).

PROJECT: Disneysia Health Centers
DATE: October 1, 1974

SUMMARY WORKSHEET ON IMAGE: MEMBERS

SUMMARY OF RESPONSES		
NUMBER GIVING RESPONSES	RESPONSES	NUMBER OF TIMES RESPONSES GIVEN
50	Prevent Disease	50
	Public Health Education	50
	Mothers Club	50
	Babies	50
	School Children	50
	People With No Money	50
	Doctor	50
	Nurse	50
	Social Worker	50
	Sanitation Inspector	50
	Birth Control Pills	50
	Free Medicine	50
40	Family Planning Devices	40
	Poor People	40
	Fever	40
	Operating Room	40
	Government of Disneysia	40
	Advertise USA	40
30	Dental Care	30
	Old	30
	Tuberculosis	30
	Keep Functioning	30
	Keep Records	30
10	When Slaughtering	10
	AID	10
# OF INDIVIDUALS RESPONDING: n=50		TOTAL NUMBER OF RESPONSES: Σx=1010

SUMMARY OF COMPUTATIONS	
$n = 50$	Image/Concensus $\Sigma x^2/n$
$\Sigma x = 1010$	$= 44,300/3,500$
$\Sigma x^2 = 12(50^2) + 6(40^2) + 5(30^2) + 2(10^2)$	$= 17.6 > 10$
$\Sigma x^2 = 44,300$	

PROJECT: Disneysia Health Centers
DATE: October 1, 1974

SUMMARY WORKSHEET ON IMAGE: SPONSORS

SUMMARY OF RESPONSES		
NUMBER GIVING RESPONSES	RESPONSES	NUMBER OF TIMES RESPONSES GIVEN
10	Prevent Disease Public Health Education Doctor Nurse Social Worker Birth Control Pills Free Medicine	10 10 10 10 10 10 10
9	AID Poor People Keep Functioning	9 9 9
8	Family Planning Devices Mothers Club Babies People With No Money Record Keeping	8 8 8 8 8
7	School Children	7
6	Tuberculosis	6
4	Government of Disneysia	4
1	Cure Disease	1
# OF INDIVIDUALS RESPONDING: n=10		TOTAL NUMBER OF RESPONSES: Σx=155

SUMMARY OF COMPUTATIONS	
$n = 10$ $\Sigma x = 155$ $\Sigma x^2 = 7(10^2) + 3(9^2) + 5(8^2) + 1(7^2) + 1(6^2) + 1(4^2) + 1(1)^2$ $\Sigma x^2 = 1365$	Image/Concensus $= \Sigma x^2/n^2$ $= 1365/100$ $= 13.65 > 10$

PROJECT: Disneysia Health Centers
DATE: October 1, 1974

SUMMARY WORKSHEET ON IMAGE: CLIENTS

SUMMARY OF RESPONSES		
NUMBER GIVING RESPONSES	RESPONSES	NUMBER OF TIMES RESPONSES GIVEN
50	Set Bones Sick Broken Bones	50 50 50
48	Emergency	48
47	Ambulance Fever	47 47
45	Free Medicine Doctor	45 45
42	Big New Building	42
40	X-Rays Tooth Ache Nurse Quinine	40 40 40 40
37	Operating Room	37
36	The People	36
23	Dentist	23
20	Mothers Club	20
18	Cure Disease	18
15	Babies	15
# OF INDIVIDUALS RESPONDING: n=50		TOTAL NUMBER OF RESPONSES: Σx=697

SUMMARY OF COMPUTATIONS	
$n = 50$ $\Sigma x = 697$ $\Sigma x^2 = 3(50^2) + 1(48^2) + 2(47^2) + 2(45^2) + 1(42^2) + 4(40^2) + 1(37^2) + 1(36^2) + 1(23^2) + 1(20^2) + 1(18^2) + 1(15^2)$ $\Sigma x^2 = 29,283$	Image/Concensus = $\Sigma x^2/n^2$ = 29,283/2,500 = 12 - 10

PROJECT: DISNEYSIA HEALTH CENTERS

DATE: October 1, 1974

ANALYSIS WORKSHEET:

MEMBER/CLIENT AGREEMENT

	MEMBERS	CLIENTS	CLIENTS ADJUSTED	AGREEMENTS
Set Bones	50	45	63	50
Mothers Club	50	20	28	28
Babies	50	15	21	21
Sick	50	50	70	50
Fever	40	47	66	40
Doctor	50	45	63	50
Nurse	50	40	56	50
Operating Room	40	37	52	40
Σ =	1010	697	k=.70	329

COMPUTATIONS:

(1) k = 1010/697 = .70

(2) Agreement = 329/1010 = .33(< .50)**

* The answers listed here include only those where there was agreement. Wherever 0 would appear in the client or member column, the answer is not reproduced. However, these additional answers are included as part of the numerical answer total for each group.

** Criteria level for determining viability prognosis is included in parenthesis.

PROJECT: DISNEYSIA HEALTH CENTERS

DATE: October 1, 1974

ANALYSIS WORKSHEET:

MEMBERS/CLIENTS IMAGE ACCURACY

ANSWERS	MEMBERS	CLIENTS	CLIENTS ADJUSTED	AGREEMENTS
Set Bones	50	50	48	48
Free Medicine	45	50	48	45
X Rays	40	50	48	40
Ambulance	45	50	48	45
Mothers Club	15	20	19	15
Babies	30	15	15	15
Sick People	50	50	48	48
Broken Bones	40	50	48	40
Fever	50	47	46	46
Emergency	35	48	47	35
Tooth Ache	45	40	39	39
Doctor	40	45	44	40
Dentist	10	23	22	10
Nurse	35	40	39	35
Big New Building	35	42	41	35
Quinine	45	40	39	39
Operating Room	35	37	36	35
Σ =	675	697	k=.97	610

COMPUTATIONS:

(1) k = 675/697 = .97

(2) Accuracy = 610/675 = .91(> .50)

APPENDIX B

BLANK FORMS FOR MEASUREMENT OF PURCHASABLES, CONNOTATION, AND IMAGE

ORGANIZATIONAL VIABILITY BALANCE SHEET

PROJECT: _____

DATE: _____

	PURCHASABLES	CONNOTATION	IMAGE
INTERNAL			
EXTERNAL			
SENSITIVITY			

PROJECT: _____

DATE: _____

SUMMARY WORKSHEET ON PURCHASABLES: ASSETS & LIABILITIES

	ASSETS	LIABILITIES
INTERNAL	TOTAL	TOTAL
EXTERNAL	TOTAL	TOTAL
	GRAND TOTAL	GRAND TOTAL

Project: _____

Date: _____

SUMMARY WORKSHEET ON PURCHASABLES: EXPENSES & CASH FLOW

EXPENSES		CASH FLOW			
		Income		Projected Utilization	
Item	Amount	Source	Amount	Planned Use	Amount
TOTAL:		TOTAL:		TOTAL:	

PROJECT: _____

Date: _____

SUMMARY WORKSHEET ON IMAGE:

SUMMARY OF RESPONSES		
NUMBER GIVING RESPONSES	RESPONSES	NUMBER OF TIMES RESPONSES GIVEN
# OF INDIVIDUALS RESPONDING:		TOTAL NUMBER OF RESPONSES:

SUMMARY OF COMPUTATIONS	
n =	Image/Consensus
Σx =	=
Σx^2 =	=
$(\Sigma x)^2$ =	

PROJECT: _____

DATE: _____

ANALYSIS WORKSHEET:

IMAGE AGREEMENT

ANSWERS	MEMBERS	CLIENTS	CLIENTS ADJUSTED	AGREEMENTS
Σ =				

COMPUTATIONS:

(1)

(2)

ANALYSIS WORKSHEET:

PROJECT: _____

DATE: _____

IMAGE ACCURACY

ANSWERS	MEMBERS	CLIENTS	CLIENTS ADJUSTED	AGREEMENTS

COMPUTATIONS:

(1)

(2)

ANALYSIS WORKSHEET: PROJECT: _____

MEMBER CONNOTATION DATE: _____

QUESTIONS	DEFINITELY 0	VERY LIKELY 1	SLIGHT LIKELIHOOD 2	NOT LIKELY 3	VERY UNLIKELY 4	DEFINITELY NOT 5	
1							"
2							"
3							"
4							"
5							"
6							"
7							"
8							"
9							"
10							"
11							"
12							"
13							"
14							"
15							"
16							"
17							"
18							"
19							"
20							"
Σ =							"
	x 0	x 1	x 2	x 3	x 4	x 5	(X answer value)
							=

ANALYSIS WORKSHEET:

CLIENTS DO/SHOULD OVERLAP

PROJECT: _____

DATE: _____

	SHOULD	DO	ADJUSTED DO	OVERLAPS
Σ =				

COMPUTATIONS:

(1) k =

(2) Do/Should Overlap =

ORGANIZATIONAL VIABILITY STATUS REPORT

ACCESS TO PURCHASABLES

1. Capacity for subsistence without purchasables from external sources.

2. Linkage Strength: Prospects for future funding, etc.

ACCESS TO CONNOTATION AND IMAGE

3. Current position in the client environment. (How would the organization be faring if the clients were the sponsors?)

4. Over the short-term, is #3 on the up-swing or down-swing?

5. Long-term viability

STRATEGIES FOR INCREASING CONNOTATION AND IMAGE

6. Areas where the organization can be trusted with new responsibilities.

7. Areas of opportunity.

8. Problem areas.

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