Translator's note: having worked through this manual as part of a group using it to learn and organize, I have found a number of errors and weaknesses in the translation. In the interests of keeping the text available, we have left the current version online, errors and all, pending preparation of a revised version. - Matt Noyes

*In Unit II, the **solidarity group** defined its objectives, its business idea, and the potential market for its goods and/or services. The group also assessed the positive and negative externalities that the enterprise might produce for the surrounding community as well as the comparative advantages the group and its enterprise might have in relation to existing businesses. In Unit III, the group becomes a functioning **work unit** and turns to the various factors of production – labor power, technology, management, materials, financing, and the C Factor – that will be needed in their enterprise. What role does each factor play in the production process? How can they be combined? In what proportions? Can one factor be substituted for another? To what extent can members themselves provide the factors needed? Where can external factors be obtained?*

– Matt Noyes

UNIT III

THE FACTORS OF A SOLIDARITY ENTERPRISE

The Theorem of Defined Proportions

Session 5

Plan

1. Gather, welcome, ice-breaker, form a circle, choose a moderator for the meeting.
2. Evaluation of the Unit II.
   a) Each participant reads aloud their answers to the Unit II individual evaluation form.
   b) Carry out the group evaluation as described in the Unit II group evaluation form.
3. Break, snack.
4. “Reading Three.” (One or two people read out loud as others follow along in the text.)
5. Questions for review and discussion. (Participants volunteer to answer one question each, raising their hands to speak. Other participants can add to their answers but it is best if nobody speaks twice before others have had a chance to speak.)
6. Questions for the facilitator, exchange of ideas and free conversation on the theme.
7. Suggestions for the Individual Task. (The facilitator will explain the content and purpose of the individual task, clarifying any issues and answering questions that come up.)

[BOX] READING THREE

In the first two Units, we identified and elaborated the two main pillars on which the creation of a solidarity enterprise is based: the solidarity group and the business idea. This third reading assumes that the solidarity group has been formed and has come up with a specific business idea, although both remain provisional and require constant improvement. The theme that we address in this reading will add new elements to both the solidarity group and the business idea, modifying, and, we hope, improving them.

On one hand, we said that the group of people that wants to form an enterprise should organize itself as a *work unit*, something that is addressed in this Unit. On the other hand, we saw that the business idea should be developed with *realism*, and we will examine here *what is needed* in order to form an enterprise, which will enable us to see which elements the group already has and which are needed for the enterprise that we propose to create.

What is needed in order to form an enterprise? The economic factors.

We have seen that an enterprise is an organization that produces goods or services through the combination and joint operation of various *factors of production* (or economic factors). We will now examine the different economic factors that make production possible and must be present in any enterprise.

1. **Labor Power**[1]

The first factor of production is *labor power*. Labor power is the human *capacity of doing* and implies an effort that is sustained in time. It is the exercise of physical and mental energies, the deployment of skills and abilities in the realization of tasks that have been assigned and for the completion of which a deadline has been established.

Labor power is individual and collective: each person has a certain capacity for labor, but labor is typically realized by combining the energies and capacities of a group of workers.

Each person's labor power has different characteristics, different levels and types of qualification. There is a general, or standard, labor power which is possessed by any person of normal age and health, which permits the performance of certain simple activities. There is also specialized labor power, which is the capacity to perform activities that require certain skills and abilities, or the possession of specific knowledge and competencies that make it possible for the person to carry out more complex tasks (for example, the practice of a trade or profession).

Collective labor power is the capacity to do something through the combination of the skills and abilities of various people working together. When each person performs a partial or particular task that contributes to the execution of a larger task or activity, we speak of a technical division of labor.

Labor power, whether personal or collective, can have greater or lesser productivity, as measured by the quantity and quality of the tasks and works performed in a given period of time. The productivity of labor power depends on the levels and quality of the specialization of each person

1 Razeto's concept corresponds to Marx's definition of "living labor," labor power as a use-value, but does not assume that labor power is bought and sold as a commodity (See Marx, Capital, Chapter 7).

and of the group, but also on their dedication and effort, on their concentration on what they are doing, and on the constancy and strength of will they apply to the assigned task.

Normally, a person's labor power is greater than that applied while they are working: there are unused skills, capacities that are inactive, will that is not applied, spaces of time that are unoccupied. So we can say that the potential productivity of labor power is greater than the real productivity shown in the execution of work.

Now, labor power alone cannot produce anything nor demonstrate its productivity. In the enterprise labor power acts in concert with a second factor.

2. **The material means of production**

The material means of production are the physical objects employed in the production process: the workplace itself, the tools and machinery used, the inputs and raw materials used to create products, the implements used in performing services, the locations where products are stored, the electric energy used, and other indispensable facilities.

The material means have something in common with labor power: that they have different levels of productivity depending on their specialization, their quality, and the time during which they can operate. Some means of production are more efficient than others, producing more while others produce less. There are means of production that have a long productive life, depreciating slowly, and others that deteriorate rapidly or are used up completely in the production process.

It is important to take this into account because the quantity and quality of production depends as much on the quality and productivity of the means of production used as on the skill and productivity of the labor power employed.

But to have an enterprise and undertake production, we need more than labor power and material means of production. It is a common error to think that no more is needed, but a third factor is required.

3. Technology

Technology is the practical knowledge, the know-how used to produce things, the combination of information necessary for production. Technology is not the same as machinery; machines "contain" technology in that they embody applied and objectified knowledge that determines beforehand the activities they are capable of executing.

However, inasmuch as technology is knowledge, learning, and information, it is a *human* factor. Technology objectifies itself not only in machines and material instruments, but also in people: the knowledge of the engineer, the mechanic, the artisan. Technology is also expressed in the *design* of products, in the *formulas and calculations* related to the production process, in the *procedures and organizing systems*, in the *rational order* of processes and operations.

But all technology, before taking the form of instruments and machines, or designs and systems, is born in the mind of humans. Technology is always the fruit of human *creativity*.

With respect to technology it is important to know that just like the other factors it has a differential productivity, manifesting different levels and degrees of productivity. The productivity of technology depends on the breadth, complexity, and precision of the knowledge applied. On the other hand, technology is not eternal: all technology has a period of validity after which it becomes obsolete. Thus it is crucial for any enterprise to engage in a constant process of creation and

technological innovation. The development of new knowledge and applications allows the enterprise to maintain and increase its productivity.

Yet another factor is needed, in addition to labor power, means of production, and technology, without which an enterprise can not produce economically.

4. Management[2]

Management means *making decisions*. The operation of an enterprise requires constant decision-making with respect to multiple functions and aspects, determining which are best suited to the objectives, and adopting them opportunely with agility.

The decisions that have to be made are on different levels: some are about the general functioning and organization of the enterprise, others about very specific operational questions. Some involve long term commitments and processes, others may only be valid for a day, hour, or even minute. The system of management should be such that demands on each of these levels are met. General decisions and those with long term implications should be adopted as part of a strategic plan; those that are medium term and affect specific functions (production, marketing, financing, etc.), should be part of the work plan or road map. Day to day decisions and those affecting particular activities can be matters of executive management.[3]

As with the other factors, there can be different levels of quality when it comes to management, which determine its productivity or the contribution it makes to the achievement of the economic objectives of the enterprise. The quality of management depends on various aspects among them:

- knowledge of the real conditions of the enterprise, both internal and external,
- the skills of those carrying out the economic activities,
- the coordination and coherence between the decisions adopted at various levels of the organization,
- the capacity for meeting the changes occurring in the external or internal context,
- the agility of the processes generated by agreements,
- the reduction of time between the moment a decision is made and the moment it is carried out,
- the flows of communication between those who make decisions and those who carry them out,
- the exercise of rational and efficient leadership, and
- the disposition to correct errors, processes of evaluation.

Management is not the final factor needed. Two more remain.

5. Financing

2 "Management" here (*gestión*) is not limited to the roles played by managers. As we will see, in a solidarity enterprise, management – coordination, direction, short-term decision-making – can be organized in different forms and the associated tasks distributed in various ways. [-MN]

3 Nati Lombardo and Richard Bartlett have helpful materials on decision protocols for decentralized organizations and corresponding decision-making methods. https://www.thehum.org/ [-MN]

Financing is necessary because the enterprise is not an isolated entity, self-sufficient, producing only for itself. The enterprise must establish economic relations with third parties: suppliers, providers of factors, clients and customers, etc. The enterprise needs what others have to offer, and produces goods and services for others. Relations with others are normally conducted in the market, where the factors of production, inputs, raw materials, etc. are offered by those who possess them and where the goods and services produced by the enterprise are demanded by consumers. These economic transfers, flows of assets entering and leaving the enterprise, are typically effected through exchanges: purchases, sales, contracts, agreements, promises to pay, etc., in which money is used as the means of exchange.

The financing of an enterprise is the money that it can use to buy or hire the necessary factors of production, to buy inputs, pay for services, pay workers, and in general assure the fulfillment of obligations and commitments to pay made in its creation and operation. Like all factors, the financing used to pay for expenses itself needs to be remunerated, that is those who provide it for the time during which it is at the disposition of the enterprise need to be compensated.

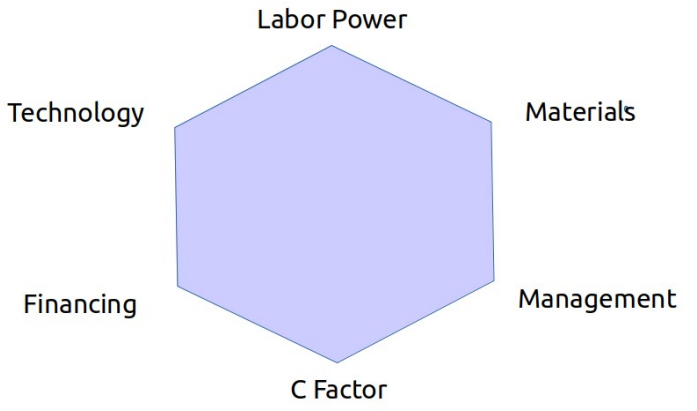
If financing typically takes the form of money (in Unit V we will examine other forms), it can nonetheless present different levels of quality. The quality of financing is made manifest in the time for which it is available to the enterprise and in the interest rate that must be paid. This quality depends basically on the credibility and trust that the enterprise is able to inspire in those who offer financing, whether they are members of the enterprise itself or outside investors who offer financing in the form of credit or loans. The more trustworthy the enterprise, the more money those financing it will be ready to provide, for longer periods, at a lower interest rate.

The sixth and last factor is our old friend, The C Factor.

6. The C Factor

As we already studied the C Factor in Unit I, we will limit ourselves here to recalling that the C Factor is solidarity converted into a productive force; that it is created through the union of consciousnesses, wills, and feelings around a shared objective; and that its quality – the force, consistency, and permanency of the ties that integrate the enterprise as a community or human group – determines its productivity.

We can now consider the relations among the factors, which are present to one degree or another, in any enterprise. As they operate together and are only productive in their joint operation they must be combined and organized for production to take place. The enterprise is precisely this: an organization of labor power, material means of production, technologies, management, financing, and the C Factor. We can represent it as a hexagon in which each factor is connected to the others:



Six Factors of Production

The productive efficiency of the enterprise hinges on the combination and organization of the six factors, and the productivity of each factor depends on how it is combined with the others. We can say that just as an artist combines colors in their work, the entrepreneurial art consists of combining factors in a way that is harmonious and efficient. To combine the factors adequately there are some important things we need to know. The most important is the following:

The Theorem of Defined Proportions

This theorem states that in combining the productive factors certain *proportions* must be respected and the correct *correspondence* among them must be sought. The proportions are the quantities of each factor to be combined; correspondence alludes to the relation between their characteristics and qualities. Let us illustrate this with a few examples of each term, beginning with proportions.

Imagine a textile enterprise whose workplace is a 5x4 meters room with two looms each of which can be efficiently operated by two people. There are thirty workers. Is this an adequate proportion of labor power to means of production? Obviously not, since many workers would be inactive; and as there would remain little space for movement, it is to be expected that the people would talk and generate distractions of all kinds, leading to less production than could be produced by the four workers alone.

If, in the same textile enterprise, the workers can process 20 kilos of wool a day would it make sense for this enterprise to have 10,000 kilos of wool in storage, enough for 500 days of work? Clearly no, since in addition to generating problems of storage, the enterprise would have a great quantity of raw material immobilized which implies money invested that spends a lot of time unproductively. Of course, it would also be a mistake to operate with only enough wool for one or two days of production as any delay in supply would lead to a halt in production and a corresponding fall in productivity.

Now, imagine that in the same enterprise, in addition to the four machine operators, there were five other people working (in purchasing and sales, in design and product development, etc.), would the proportions be correct if there were a bureaucratic structure with six levels of hierarchy and eight departments or sections, represented in a complex organizational chart?

Assuming the enterprise has a cash flow that oscillates between 10 and 12 thousand dollars a month, would the financing be proportional if the enterprise kept 80 thousand dollars on hand, enough to cover all the costs for several months? The excessive amount of cash on hand is not helpful to the enterprise: the money will likely be spent unwisely, on unnecessary expenses, with poor profitability, and much of it would remain unproductive, which means it would be losing value. Workers, knowing there was so much money available, might reduce their efforts on the job, vendors might feel less pressure to accomplish their tasks with efficiency, etc.

We can multiply the examples; but at this level of abstraction the idea of defined proportions is clear: the different factors should be combined in the enterprise in the right quantities, permitting all the factors to be kept active and highly productive. If one factor is lacking, it becomes a “bottleneck” for the enterprise; as all the rest, which operate jointly with that factor, become excessive and remain largely unused. If one factor is in excess, there will be friction with the others, interfering with their functioning, and not only will that factor remain largely unused, it will drag down the productivity of the others.

Now, the efficient combination of factors is not only a question of quantities but also of the quality and characteristics of the factors combined. Each factor has special characteristics and its productivity is not "general" but particular. To operate looms you need weavers, not mechanics. To do the books for a small enterprise is it better to have an accountant than a business administrator because while the latter is quite able to do accounting, the rest of their technical knowledge will remain unused and their productivity will be lower than if they worked at their own profession. For an enterprise that will obtain revenue in the medium term, short term financing will not do. To manage a small enterprise operating in a local market a manager with experience in large enterprises that operate on the international market is not much use. Better to find someone who knows the reality that is relevant for the proper functioning of this small enterprise. And so on.

Thus we find that the "defined proportionality" between factors is as much qualitative as quantitative and when organizing an enterprise one should search for that combination of factors that will assure the best use of each available factor as well as the maximum productivity of their joint operation.

We said that there are "defined" proportions in which the factors of every enterprise must be combined in order to operate efficiently. Nonetheless, there is not one single proportion that is efficient, all others being inefficient. In reality, for any given production process there exists more than one proportion of factors that can be efficient. To understand this we need to introduce another concept:

The reciprocal substitution of factors.

In production, some factors can replace or be substituted for others. The most obvious case is the substitution of machinery for workers and vice versa. When a new type of machine manages to produce the same or greater quantity of goods or services with the same number of or fewer workers, it is said that the productivity of labor has risen (because the total production rose with fewer workers); but in reality it was the productivity of the machinery that increased. The rise in productivity of one factor signifies that the specific contribution of that factor to production has grown; thus, the productivity of labor rises when the product of labor is greater, which normally occurs when workers specialize or gains skills, or when improvements in the organization of labor make them more efficient.

Any factor can be partially replaced by another that makes a greater contribution to productivity. For example, improvements in information systems (technological factor) can facilitate management and make the decision-making system simpler, de-bureaucratizing it and reducing its footprint in the enterprise.

In this sense it is important to take time to carefully consider what occurs with the C Factor, which is so important for solidarity enterprises. This factor has the very special quality of being highly substitutable for other factors: it can replace them easily and in great proportion, and can itself be replaced by other factors. Let's look at how this happens and what it implies for the organization of enterprises.

What happens when a group of people is integrated and united, with each member conscious of their common objectives and giving their all to achieve them? When the C Factor has this quality its contribution to production takes two forms: raising the productivity of each of the other factors and adding value to products itself, thus allowing the enterprise to obtain profits operating with a lower provision of the other factors. We will see how a strong C Factor allows the enterprise to partially replace the need for each of the other factors.

In well integrated group with a good working atmosphere, workers help each other in their tasks and teach each other the best ways to do them making work more pleasant and reducing the fatigue that the activity causes, allowing for greater output per worker and a greater intensity and duration of activity. In this way the same activity can be satisfactorily carried out with fewer workers, and less labor power, than would be needed in the absence of a strong C Factor.

A good C Factor also implies less need for material means of production because they will be better maintained and cared for, depreciating more slowly, and more intensively employed, increasing their productivity. It may even be possible to forgo those means of production whose function is to improve working conditions inasmuch as the strong C Factor may better meet those needs.

A consistent C Factor also makes it possible to spend less on necessary technology as the spontaneous exchange of practical knowledge and the creativity of the group in finding solutions to technical problems reduces the need to obtain information and technology on the market.

The C Factor also simplifies management by facilitating communication, incorporating everyone in decision-making, and reducing the lag between decision-making and execution. A strong C Factor allows for simpler coordination of activities, eliminating many bureaucratic practices of control and accountability that are necessary where there is mistrust, and can be the source of significant costs for the enterprise.

Given the foregoing, the presence of a strong C Factor in an enterprise leads to reduced financial needs, allowing it to operate with less disposable cash. If the management is collective, it is not necessary to hire expensive managers and executives; if the people who do the work are members of the enterprise it will not be necessary to pay the legal costs associated with labor relations and conflicts, and the enterprise can operate on the assumption that the workers themselves will provide credit needed to cover any backpay that is owed, etc.

In this and other ways, the C Factor reduces the need for the other factors. Inversely, if the C Factor is lacking, its contributions and functions need to be substituted by other factors: a more complex information system, expensive bureaucratic and hierarchical management structures, a greater quantity of materials which will deteriorate and depreciate more quickly, more labor time for a given amount of production, etc.

Enterprises with various combinations of factors have different cost structures.

Thanks to the reciprocal substitution of factors, it is possible for the factors to be combined in different proportions. As we noted, for any given type and volume of production different theorems of defined proportions are possible. This is seen in the fact that enterprises can be intensive in one or another factor. There are enterprises with a high proportion of labor power, others in which the material means of production predominate, or financing, technology, management, or the C Factor.

As the productive factors have different values in the market and their integration in the enterprise implies greater or lesser costs, enterprises with more or less of a given factor will have different cost structures.

Generally speaking, capitalist enterprises in which it is more difficult to establish a C Factor (given the different interests of those participating), the financial costs tend to be very high. These enterprises also tend to function with less labor power, replacing it with machinery or technology, as the costs per worker tend to be high even if workers are paid little. Enterprises tend to incur costs associated with labor conflict and workers themselves don’t give their all, normally working with

little commitment to the enterprise, slowing down, and forcing the enterprise to implement costly systems of monitoring and control.

Inversely, enterprises with a high proportion of the C Factor have decidedly lower financial costs, and tend to function with a higher proportion of labor power, capable of replacing certain portions of the materials, technology, and management factors. In solidarity enterprises the workers are committed to the achievement of the objectives of the enterprise, the profits of which will benefit them directly, so the productivity of workers tends to be higher (reinforced by the C Factor) making it more efficient for the enterprise to pay workers than to pay for other factors that might otherwise be substituted.

The quantity and quality of products and services depends on the combination of factors employed in their production.

When we say that factors are "productive" what we mean is that they contribute to the generation of products, whether tangible products or intangible services. The contribution made by each factor is seen and reflected in the product: in production something from each factor passes into the product and is "trapped" there. Thus the quantity and quality of the products depend on the quantity and quality of the factors employed in their production. Let's consider some examples:

A ceramic cup, or a piece of fabric, made "by hand," that is employing a high proportion of labor power and a minimal amount of machinery, is quite different from the same item produced by machinery with a reduced amount of labor power. In both cases, the quality of the product depends on the quality of the factors employed – the labor power and the machinery – according to the proportion of their participation in production. The quality and quantity of the technology and the knowledge used are also reflected in the products. It is easy to understand how the quality of the raw materials influences the quality of of the product. It is less obvious, but equally true, that the quality of the product depends on the quality of management. Each factor leaves a part of itself in the product. The C Factor as well: goods and services produced with love and solidarity, turn out to be different and superior to those products made with nothing but a cold financial calculus. From this point of view, the "theorem" of factors is also important and enables us to see that it is best to "solve" it by considering not just the criterion of cost structure but also the quality of the product that is to be brought to market.

Internal and External Factors

Finally, we should bear in mind that the various factors can be present in the enterprise in two ways: as factors proper to the enterprise, or *internal* factors, and as *external* factors.

Internal factors are those that belong to the enterprise, or that its owners or proprietors contribute directly to the enterprise. External factors are those factors necessary for production that are not already part of the enterprise's assets, so they must be contracted on the market. External factors imply direct costs for the enterprise as payment must be made for the time during which their productive services are employed in the enterprise. On the other hand, the enterprise does not pay for its own factors, their contributors are recompensed through participation in the profits or surplus obtained in the fiscal year. Any of the six factors, or portions of them, can be internal or external to the enterprise, resulting in different cost structures and different forms of distribution of surplus.

Cost structure and surplus distribution are quite different in capitalist and solidarity enterprises. In solidarity enterprises, it is normal for labor power to be internal, given that workers comprise the organization; in capitalist firms this is not the case, labor power is typically an external, contracted

factor. Moreover, in solidarity enterprises the C Factor is always internal, while in capitalist enterprises it must be considered an external factor, even though it is not remunerated. Technology and management, too, are internal to the solidarity enterprise insofar as they are provided by the members (in the form of the creativity and knowledge of members, their self-management or participation in decision-making). Thus on this front too solidarity enterprises have lower direct costs (and needs for financing) than capitalist enterprises which have to pay for all the human factors they employ.

In accordance with the theorem of defined proportions and the reciprocal substitutability of factors, each enterprise should find the combination of factors that suits it best, taking into account the factors already in its possession, the access it has to other factors, and the cost structure that could support and enable maximization of gains.

[END BOX]

INDIVIDUAL TASK #3

To be done after the fifth session.

- Study the Glossary at the end of Unit III.
- Answer the “Questions for Review and Discussion #3” in writing in your notebook.
- Write your curriculum vitae or resume.

Questions for Review and Discussion #3

The following questions should be *answered individually, in writing*. Each participant will later *share their answers during the group work*, allowing for evaluation and correction of the answers by comparing them with the answers of other members and ensuing discussion.

1. What are the six factors of production needed in any enterprise?
2. What is technology? What forms does it take in an enterprise?
3. What is the factor known as management? What elements influence its productivity?
4. What are the functions of financing in an enterprise?
5. What is the Theorem of Defined Proportions?
6. What is the reciprocal substitutability of factors?
7. Why do solidarity enterprises have less need for financing than capitalist enterprises?
8. How are the costs structures of capitalist enterprises different from those of solidarity enterprises?
9. Based on the theorem of defined proportions, can you explain the differences between artisanal and industrial production?
10. Can you give an example of each of the six factors of production?
11. Why do we say that the theorem of defined proportions is the “basic equation” that the solidarity group must solve if it wishes to create an enterprise?

How to make a curriculum vitae (C.V.) or resume.

A C.V. is a personal introduction that is normally prepared for job applications. The idea is to tell the reader about your skills and the contributions you can be expected to make to the enterprise if you are hired. In our case, the C.V. should be written for the solidarity group, based on the type of enterprise the group has decided to create.[4]

C.V. Contents:

- Full name:
- I.D. type and number:
- Address:
- Date of Birth:
- Family Status:

4 It is worth taking some time to reflect as a group on the differences between a C.V. prepared for capitalist enterprises and one prepared for a solidarity enterprise. For example, parenting and other non-wage care work may have special relevance in a solidarity enterprise. See, for example, Distributed Cooperative Enterprises https://disco.coop/2019/08/last-night-a-distributed-cooperative-organization-saved-my-life-a-brief-introduction-to-discos/ [-MN]

- Family Members:
- Formal Education:
- Other Education:
- Training Courses, Certificates:
- Current Position or Profession:
- Other positions or professions:
- Other skills or abilities:
- Other knowledge or expertise:
- Work Experience:
- Freelance or Self-Employed work:
- Participation in social movement and/or community organizations:
- Positions held in social/community organizations:

Session 6

Plan

1. Gather, welcome, thematic game, form a circle, choose a moderator for the meeting.

4. Reading and commentary on the answers to Questions for Review and Discussion #3. (If the group is large, each participant will read only one or two responses.)

3. Exercise #5. Recognizing the Human Factors that Each Member Brings.

5. Break, snack.

6. Exercise #6. Recognizing the other Factors of the Solidarity Group.

7. Reading and Organization of *Jornada* #2: “The Theorem.”

Exercise #5

Recognizing the Human Factors that Each Member Brings.

Explanation

The objective of this exercise is for the group to recognize the human factors (labor power, technology, management, and C Factor) that each member brings to the solidarity enterprise to be created. We are speaking only of a *preliminary* recognition since the more complete identification of factors and the effective possibility of integrating them in an enterprise where they play a useful role, are more complex questions that we will examine in Unit IV.

As the human factors are acquired and developed to a large extent in the labor process, in study, and in participation in the organization, each member's curriculum vitae can be a useful tool for documenting the skills, experience, and capacities available to the group.

The Flow

1. This exercise is carried out using a flip chart or board on which are drawn four columns with the following titles:

Labor Power	Technology	Management	C Factor

2. Participants take turns reading to the group the C.V.s they prepared in the individual task from the previous session.
3. After each C.V. is read, the moderator or note-taker records the relevant data for each factor on the chart. The person who read their C.V. adds additional information to make sure the notes reflect more exactly what that person can do/contribute.
    a) Labor Power: positions and professions, skills and talents, and other labor abilities developed in previous work experiences.
    b) Technology: knowledge and practical know-how gained from formal study, training courses, and other apprenticeship-type activity.
    c) Management: organizing and coordination skills developed through work experience, and participation and positions held in social and community organizations.
    d) C Factor: participation in social movement and community organizations.
4. When all have read their C.V.s and the factors they bring have been noted, an open conversation is held in which the group assesses and evaluates the human factors on which the solidarity group will be able to draw. While analyzing in this way the information provided by each person, the note-taker will highlight on the board or flipchart the factors that are clearly useful to the enterprise the group plans to create.

Exercise #6

Recognizing the Other Factors Present in the Solidarity Group.

Explanation

It is not always easy to get a complete picture of the productive factors available in a solidarity group because people and groups often possess many more factors than they know. Sometimes it is difficult to recognize the factors present in a group because they are inactive, or have not been productively used, or have not been considered economically useful. On the other hand, we are so habituated to thinking that the only productive factors are labor and capital that we pay little attention to many other human and social factors. When one has the idea or project for an enterprise, the desire itself to realize it enables people to to discover all the elements with which they can contribute which are neither seen nor appreciated when there is not a concrete initiative. The sense of this exercise is, then, to broaden the recognition of those factors which the solidarity group already possesses and will be able to put to use in the enterprise they will create.

The Flow

1. Draw a hexagonal figure linking the six factors, leaving space in which to write the elements of each factor as they are added to the diagram. The chart from Exercise 5 should be posted nearby, to avoid repetition.
2. The exercise consists of identifying all of the constitutive elements of the productive factors, additional or minor, not defined in Exercise 5, that the group members bring to the enterprise. All the elements should be identified, even if they don't seem useful to employ in the enterprise and even if the members are not thinking of offering them to the group. The group proceeds factor by factor, starting with Labor Power, then Technology, Management, and the C Factor, ending with Materials and Financing.
3. For each factor group members take turns indicating elements that they believe members of the group possess. The other members ask questions and make suggestions, such that each person ends up describing everything that could eventually turn out to be productive.
4. Once the elements have been identified, they are added to the diagram.[5]
5. When every factor and each group member has been considered, the exercise ends with a group reflection on the results.

5 All charts should be photographed and kept as a reference. [-MN]

Jornada #3

"The Theorem"

What is this practical activity about?

The purpose of this *jornada* is to solve the basic equation of the enterprise, that is, to design the combination of factors that will enable the enterprise to function efficiently making the most of each factor and its potential productivity. The idea is to make the exercise as realistic as possible, taking into account the restrictions and limits to the availability of the factors that the group obtains through the contributions of members or from external sources. The purpose of designing a theorem for the enterprise the group wishes to create is to identify the specific proportionality among the six factors which will assure that all factors are used efficiently.

Solving the "theorem" of the enterprise is a technical question, the complexity of which can be greater or lesser depending on the scale of the enterprise, the number of members, the type of goods and services that one wishes to produce, the size of the market to which one has access, etc.

But although it is a technical question, and even though we called the Theorem the "basic equation" of the enterprise, solving it is not a matter of mathematics, nor something to be done by simply following a predetermined procedure. In reality, the multiple and varied understandings members bring have to be combined "artfully." So this *jornada* should unfold very freely with the group defining the best way to reach their goal, guided by their business idea and a sober consideration of the factors available to the group. It is crucial that the group accomplish the objective: identifying as precisely as possible the factors needed to create the enterprise and defining the best combination of factors in order for each factor and all of them together to generate the highest and best productivity.

Which aspects of the Factors should be included in the *jornada*, in order to define the best possible combination of factors?

The six factors should be examined one by one, specifying a) which elements are necessary for the operation of the enterprise; b) the quantity of each element that is required; c) the quality they should have; d) the productivity that they should reach; e) the specific contribution they will make to the products; and f) the proportions in which each factor can best be combined with the other factors for greater overall efficiency.

What are the activities to be done in this *jornada*?

The Theorem has three steps:

a) Preparation and planning (this is to be done in the sixth session, if the group can not complete it, an additional session should be held).

b) Doing the assigned small group and individual tasks.

c) A day of group work.

What is the individual assignment?

Each member of the group will make a serious effort to gather information and ideas to contribute to the design of the enterprise theorem. We can not offer a more specific process to follow since the knowledge needed differs so much with the type of product or service to be produced and the

group's business Idea. We can, however, say that all information that helps the group specify the following elements will be useful:

- the goods and services the group intends to produce, including quantities and quality;
- the supply market for factors, including information about quality and price;
- the market for the goods and services that will be produced, including estimates of quantity, quality, and price;
- the productivity of the factors, in various combinations;
- the combination of factors in similar businesses;
- all other pertinent information.

What should members bring to the *jornada*?

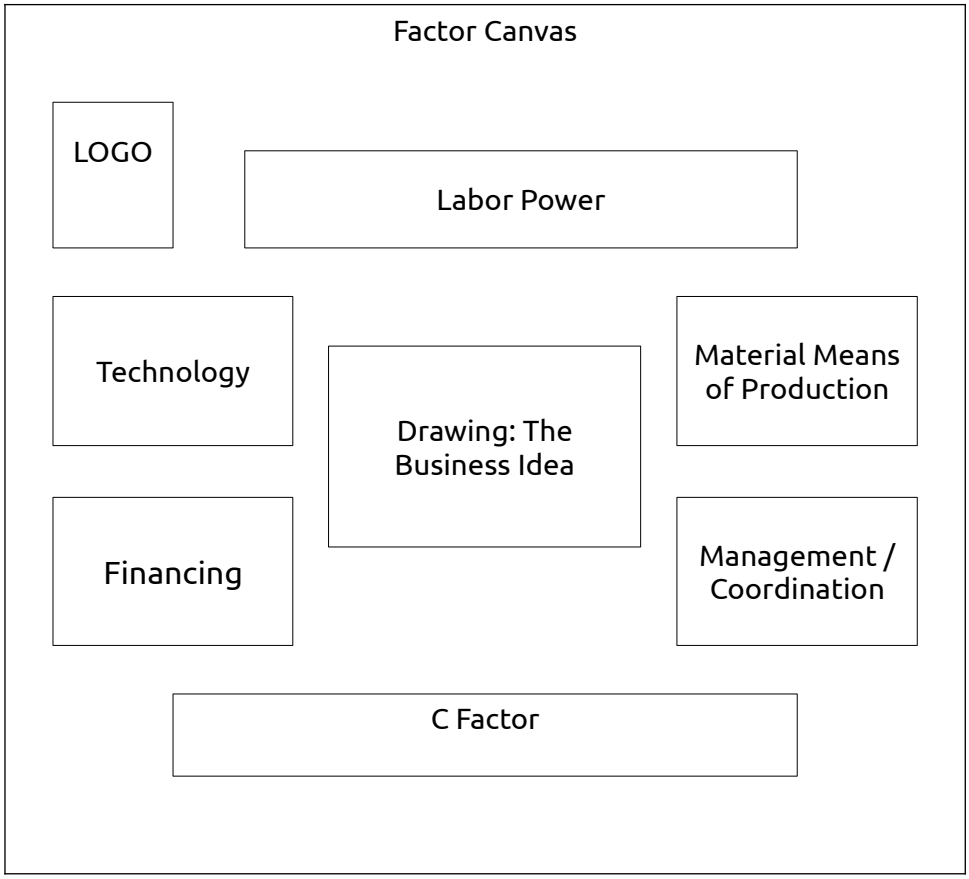
- Each person will bring their Curriculum Vitae and their notebooks with all the information they obtained in the "individual assignment" above.
- The group symbol and logo design created in Unit I, Exercise 2.
- All the materials from Exercises 5 and 6.
- The large canvas used in *jornada #2*.
- Plenty of index cards (10cm x 20cm) in six colors.
- The notes that each person and group wrote during the "exploring the market" and "exploring the social environment" exercises.
- Updated account information (personal and group).

How should the *jornada* be done, what is the plan for group work?

This *jornada* is essentially a work session that can be done in about four hours, though the group may decide to add other activities that they think would be good to include.

The *jornada* follows this **plan**:

1. Gathering, welcome, thematic game. Installation of the group symbol, used in the *Mitote*, in an appropriate place. Selection of a moderator for the union, as well as a "canvas manager" (person who manages the bulletin board or display used in the activities), and a note-taker.
2. Preparation of the Factor Canvas, using the layout below.
3. Activity 1. Imagining the enterprise on day one.
4. Activity 2. Recognizing useful factors.
5. Break and Snacks
6. Activity 3. Identifying indispensable factors.
7. Activity 4. Maximizing the productivity of the factors identified.



Contents of Activity 1 – Imagining the enterprise on day one.

The group already has an idea of the enterprise it wants to create and the task now is to begin to pin down the structure of factors with which it can operate. This is a complex technical task that needs to be realized over the course of several iterations. We will begin with a creative exercise in which the group creates for itself an image or prefiguration of the enterprise that is as detailed as possible, with all the necessary factors identified.

With the group seated in a semi-circle facing the board, the moderator invites all the participants to close their eyes and be silent, imagining the enterprise as it would be on the first day of its operation, if it were ideally organized.

After a few minutes, there is a round of comments in which each participant describes the group as they imagine it.

Open conversation follows in which people discuss the prefigurations offered by their fellow members. The idea is to assemble a full image of the enterprise they wish to create, as it would appear on its first day. To this end, the participants should methodically consider the six factors, with an emphasis on their efficiency and productivity.

Having identified the necessary elements for the operation of the enterprise on its first day, participants record them on index cards (one color per factor).

Contents of Activity 2

Taking turns, the group members share the results of their individual work: the information they gathered that can help the group design the factor theorem for the enterprise.

Based on all of the information gathered, the group identifies all the factors that could be useful for the creation of their proposed enterprise. Each element corresponding to one of the six factors, it is written on an index card of the appropriate color and attached to the canvas, alongside those from the previous activity. In this phase *all* the elements that could have some utility should be noted, even if they seem minor or dispensable.

Contents of Activity 3

The third phase of the *jornada* consists of selecting those factors that the group considers to be *indispensable* for the proper functioning of the enterprise, and those which are most important due to their *greater productivity*.

Analyzing each factor, the group removes from the canvas those cards that mention elements that are dispensable, either because they contribute little to the accomplishment of the objectives of the enterprise, or because they have a very high cost relative to the productivity that could be expected from them. Naturally, it is permissible to combine or replace cards if the analysis suggests such changes.

Finally, the cards are re-ordered according to the importance and indispensability of the factors they mention.

Contents of Activity 4

The fourth phase consists of analyzing the proportions in which the factors should be combined in order for the enterprise to be most productive. Considering that some factors will be harder to obtain and integrate into the enterprise than others, it must be asked if the specific contributions they make might be substituted by other, more readily available, factors. Keeping in mind that the factors have to be combined in defined proportions, and that they must correspond to each other qualitatively, the group specifies the necessary quantities of each factor and the qualitative features they should have. This data is noted on corresponding index cards.

The *jornada* is finished when the group believes it has successfully defined and properly solved the factor theorem for the enterprise.

GLOSSARY

Efficient Combination of Factors

A combination of factors is considered efficient when its joint operation manifests high productivity, generating profits and revenues greater than the costs incurred to obtain them.

Executive Management

We understand the role of executive management in an enterprise to be the system and procedures for making short term decisions. Placing those decisions in the context of more general plans and strategies which orient them, executive management responds and adapts to conditions and circumstances that are changing daily.

Technical Division of Labor

The technical division of labor is the differentiation and complementarity of the various activities and tasks executed by a collective labor force, organized according to technical criteria with the goal of maximizing productivity.

Technological Innovation

Any change in production process that results in the incorporation of new practical approaches, information, or technical systems.

Cost Structure

The composition of the payments an enterprise must make to the people or enterprises that supply the various factors employed in its economic operations. Cost structure also takes into account the time periods within which payments must be made.

Technological Obsolescence

Technological obsolescence is the loss of productivity of a technological element or understanding resulting from the development of new understandings or technological elements that are more productive or efficient. Any technological understanding or element has a determinate “shelf life,” inevitably becoming obsolete; thus the importance of constant technological innovation and updating of understandings.

Functional Organization Chart (Organigram)

The functional organization chart is a design that represents, on vertical and horizontal axes, the different levels of hierarchy and the subdivision of functions and units of labor and their organization within an enterprise or economic unit.

Strategic Plan

The strategic plan is a systematic combination of decisions with long term consequences (usually covering several years) that addresses the most important or structural aspects of an enterprise or organization. The decisions are organized in a plan and adopted simultaneously in view of increased development and greater fulfillment of the enterprise’s general objectives. Typically, in a strategic plan the objectives and the goals to be met in a given period are set, as well as the main means to be used to achieve them, the investments to be made, the internal organizational forms that will be adopted, and the strategic lines that will be followed.

Potential Productivity

The potential productivity of a factor is the maximum contribution to production or creation of economic value that the factor can make in a specific period.

Real Productivity

Real productivity is the contribution that the factor actually makes to production.

Work Programs

Work programs are collections of medium-term decisions made simultaneously to be carried out in a specified period of time, referring to relevant aspects of the operation of an enterprise or organization, or its sections or departments. Work programs make the more generally defined long-term strategic plans specific and concrete.

Reciprocal Substitutability of Factors

The capacity of factors to replace each other in the specific contribution they make to production.

Interest Rate

The interest rate is the remuneration demanded by the possessor of a certain sum of money or financing in return for putting it at the disposal of another economic subject, in the form or a loan, for a specific period of time. The interest rate is typically set as a percentage of the sum of money lent. When a loan is made, the parties agree to an interest rate as well as a time period within which the amount of money borrowed must be paid back to the lender (also know as amortization).

Economic Transfer

Any flow of economic assets between subjects implying a transfer of ownership.

EVALUATION OF UNIT III

This evaluation is to be done both individually and as a group.

Individual Evaluation

Each participant should answer the following questions in their notebook:

A. Circle the answer that best matches your experience.

1. My understanding of the contents covered in Unit III is:

   Weak – Good – Excellent

2. My performance of the individual assignments in this Unit was:

   Weak – Satisfactory – Very good

3. I consider my contributions to the group exercises to be:

   Poor – Adequate – Outstanding

4. My participation in the organization and execution of the practical activity (*jornada*) was:

   Passive – Relatively active – Very active

5. I think my overall contribution to the group was:

   Very little – Could have been better – Ample

B. Reflect on the following questions and summarize your answers in writing.

1. Did I create a Curriculum Vitae that was properly structured, true, and complete? Did it help me discover and value the human factors I possess?
2. Do I feel that the factors I possess can be useful to the solidarity enterprise we are hoping to create?
3. Do I believe that the factor theorem that we designed in the group is the most appropriate? Do I have suggestions for changes?
4. Am I ready to give my all to achieve these objectives? In what areas or ways can I do more?

Group Evaluation (to be done in the next session)

Seated in a circle, the whole group discusses the following questions.

1. Did we come up with a good design for the factor theorem for the enterprise that we plan to create?
2. Can we reach our objectives by creating an enterprise that has this factor structure?
3. What comparative advantages will our enterprise have as a result of being organized with this factor structure?