Creating an Enterprise Capital Portfolio to Increase Productivity, Based on Portfolio Approach in Optimal Capital Stock

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Abstract
In economics, capital is referred to all things lead to generate revenue. In management science, capital (or organizational capital) refers to resources and subjects of the organization that provide benefits to the organization's business or its missions. With a general approach, the organization's capitals are divided into four broad categories of human, physical, informational and social capital. Any other type of capital is defined as a subset of one or two of these four types of capital. In this paper, after introducing various types of organizational capital, we try to provide a way to efficiently apply organizational capital based on Portfolio approach used for financial capital in economic systems. When we have some types of capital for a variety of portfolio as organizational paths, choosing the portfolio will be a kind of "optimal distribution of capital and effective matching with work processes being with maximum productivity." Providing an optimal portfolio for organizational capital management conduces to increase enterprise productivity from the capital view of the components of the organization. This method of increasing enterprise productivity has features such as Scalability, programmability, high precision and better management that can be replace with alternate or complementary methods.

Keywords: Enterprise Capital, Human Capital, Economic capital, Social capital, Information capital, Optimal Stock Portfolio.


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1. Introduction

Enterprise capital (EC) is independent components of the organization that creates benefits to the business of the organization [1]. These advantages appear in different roles that have certain and effective effects on the business factors of the organization. Today, Enterprise capital has many types: intellectual capital, social capital, capital [3,4, and 5]. Most organizations also have a variety of resources and capitals to achieve organizational goals [6]. Part of these capitals is tangible and quantitative and them role in the business of the organization is direct, clear and certain [4].

However, another part of organizational capital has indirect, uncertain and complex effects on the organization’s business [7,8]. Enterprise capital is expressed as a set of valuable assets that are difficult to imitate, replace, or move, so that they have a long useful life in organizational productivity [4].

In general, the capitals of an organization are divided into two types: I) Soft and Invisible, II) hard and visible. The soft capital of an organization, that has been highly regarded along with hard capital, is: 1) Culture, 2) structure, 3) learning and organizational experience, 4) information, and 5) social communication [1]. In the table below, examples of soft and hard capital mentioned in previous research are listed.

<table>
<thead>
<tr>
<th>Soft capital</th>
<th>Hard capital</th>
</tr>
</thead>
<tbody>
<tr>
<td>Culture, Structure, Social Communication, Learning, Business Intelligence, Organizational Intelligence, Organizational Information, Organizational Experiences, Credit and Social Position, ...</td>
<td>worker immovable property Enterprise equipment Personal property and, ...</td>
</tr>
</tbody>
</table>

How to manage and capitalize an organization rationally affects its productivity. Therefore, identifying the relationship between the types of enterprise capital and enterprise productivity is not very difficult [4]. Hence, one can expect the application of different strategies to engage the various organizations’ capital with the paths, missions and services offered by the organization can affect the results of enterprise productivity [5].

In the next section, we will first introduce the types of enterprise capital and explain the dimensions of each one and their relationship with each other. We will also discuss the relationship between the types of enterprise capital and the positive and negative effects of them to each other. We then propose the enterprise capital distribution approach based on portfolio. This approach provides a framework for optimal distribution of capital in an organization.

2. Types of enterprise capital

Capital is the most important factor in business and trade, which is the main instrument of benefit's attraction. An organization must have the capital to benefit from the operations such as trade, production, services and etc.

Economically, capital means the difference between the value of assets market and liabilities of a financial institution, which is in fact the same as the concept of the value of capital market [14]. To identify what can be considered an asset in an organization, we include indicators for it. Types of capital in any form should be able to produce one of the following:

- Providing competitive advantage for the organization
- Resulting or improving the organization's revenue and profitability
- Improving the productivity of the organization
- Creating value in the organization
- Creating money for the organization.

Now, in addition to the physical and financial resources of an organization, we can look at the more resources and issues of the organization from the perspective of capital's nature. Based on the five main factors of an asset, we can do a complete division of the types of enterprise capital that can cover all other types as follows:

<table>
<thead>
<tr>
<th>Capital existence</th>
<th>Information</th>
<th>Social</th>
<th>Economic</th>
<th>Human</th>
</tr>
</thead>
</table>

In this way, everything that is considered as an enterprise capital will fall into four categories of human, economic, social and informational capital. We are now introducing these four main categories.
2.1. Human Capital

Human resources of an organization are its human capital. This kind of capital has the following characteristics [2,1]:

A) It is directly productive: human resources provide the possibility of activating work paths and the possibility of providing services or producing a product or different issues of the business of an organization and is therefore directly productive.

B) It is not erosive: the use of this capital does not reduce it, but using it to any extent, increases the stored value of the experience and expertise of the organization.

C) It is necessary to create and apply other types of capital: other capital is used by human capital.

2-2. Economic capital

It refers to all financial resources or capable to financial evaluation in an organization such as liquidities, facilities, equipment, enterprise holdings, and financial considerations [1].

2-3. Social capital

Social capital is a tool for understanding relationships in social systems and is one of the recognized organizational advantages [1]. Social capital is associated with social structure, which facilitates the actions of individuals within the structure with one another or with persons outside it and improves its position in facing other structures. Social capital is created in the social relations of individuals [7,9].

2.4. Information Capital

All that is referred to, documented and reported as an organizational experience, understanding or diagnosis is organization's information capital [13].

2.5 Intellectual Capital

Organizations must identify measure and manage their invisible assets, and try for these assets to be continually improved and improved. Considering the measurement of intellectual capital due to the limitations of the traditional accounting systems and its models and methods of measuring, it must be done in new ways. It is clear that today the success of organizations depends on the ability to manage its invisible assets [15]. In this study, we consider intellectual capital as one aspect of capital.

3. Strengthening enterprise capitals

This section provides an overview to ways of developing and strengthening all types of enterprise capital, except for the economic capital that is directly strengthened and increased by the business enterprise model.

3-1. Human capital as a productivity development instrument

Human capital is the instrument of all other capital of an organization from the perspective of creating, managing and strengthening them (Figure 1). When we turn the nature of human resources into capital, we will have a parallel look at these four classes of capital. For example, attracting an individual in an organization can be directly related to increasing the organization's income as much as the average income of each individual, creating a new set of social capital depended on individual, and strengthening and utilizing a part of the existing or new information capital created by the individual [11].

Table 3. Basic elements

<table>
<thead>
<tr>
<th>Elements</th>
<th>Strengthening ways</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increasing Capacity</td>
<td>Known ways to empower human capital are as follows:</td>
</tr>
<tr>
<td></td>
<td>1) Training</td>
</tr>
<tr>
<td></td>
<td>2) Participation and teamwork</td>
</tr>
<tr>
<td></td>
<td>3) Delegation of authority</td>
</tr>
<tr>
<td></td>
<td>4) Information compilation</td>
</tr>
<tr>
<td></td>
<td>5) Performance evaluation</td>
</tr>
<tr>
<td></td>
<td>6) Trust and commitment</td>
</tr>
<tr>
<td></td>
<td>7) Effective communication</td>
</tr>
<tr>
<td></td>
<td>8) Enrichment of the job and etc.</td>
</tr>
</tbody>
</table>

Figure 1. The Key roles of human capital in the organization
Some ways to increase the motivation of human capital that contribute to the development of the capacities of this type of capital include:

1) Dispersing importance feeling
2) Voting,
3) Appreciation
4) Creating interesting and belonging to work
5) Understanding along with sympathy for the problems of individuals
6) job security
7) decent service compensation
8) creating job attraction
9) job growth
10) honesty of the manager with the people of the organization
11) participation in group activities
12) description of organizational goals and Matching with individual goals
13) Challenging forces
14) Creating a systematic attitude
15) Paying attention to the internal motivations of individuals & etc.

| Table 4. Strengthening factors of social capital |
|-------------------------------|-------------------|
| Factors                      | Elements                  |
| Cognitive factors            | Attention to organizational goals, the existence of strong organizational culture, and the transfer of work experience |
| Structural factors           | Desirable work system, formation of working groups, and proper selection of people |
| Relational factors           | Empathy, secrecy, honesty, humility in organization, high threshold of tolerance in people, honoring goodness |

Social capital can be rebuilt on the basis of policy-making in specific areas of the organization or can be helped to its formation process [7,9]. Organizations that have a social capital can achieve goals that are not possible without social capital. The social capital is divided into two levels: macro level and micro level:

- **The macro level:** this level has the environment in which the organization operates, including the laws, the legal framework and the political system.
- **The Micro level:** This level is divided into two cognitive and structural dimensions, which cognitive dimension addresses the invisible part of social capital such as values, beliefs, attitudes, behaviors, and common norms. These values facilitate people's co-operation in organizations. The structural dimension is that of structures and a network based on common norms and contain processes of collective decision making and collective influence.

### 3.2 Social capital and its role of coordination and influence in the internal and external work processes of the organization

Human capital is the only necessary condition for success and productivity improvement. Now sufficient condition is the proper management of inhuman capital. After human capital, social capital has an important place for other types of capital. Social capital can be used to realize the goals of the organization. Therefore, this type of capital must be strengthened. Social capital is often a two-way capital, that is, it can be used commonly by the organization and outside the organization.

#### Intra-outside enterprise capital

![Intra-Outside enterprise capital](image)

**Figure 2.** Internal-external function of all kinds of enterprise capital

In order to strengthen social capital, both the intra-organization section and the outside-organization section should be considered. Below is a classification of factors influencing to strengthen the social capital from the intra-organization dimension [7]:

- Intra-enterprise capital

#### 3-3. Information capital and changing the position of the decision

The information capital of an organization plays an important role in organizational economics. This capital provides capacities in line with the organization's business strategies, so that it can create a lot of value added. Information capital forms a kind of invisible assets of the organization and is often hidden from the viewpoint of external observers. This type of enterprise capital, such as social capital, can be exploited by agents outside the organization. For the largely caution, most organizations avoid from distributing their information capital and ability to fully access and view it for external agents.
Information capital is formed in three stages [13]:

1. **Information structures**: Information sectors are programmatically collected and monitored by experts.
2. **Information systems**: Systems and application software provide the ability to record information operations by experts.
3. **Intelligent systems**: Decision support systems and analytical management software that provides summary and collected information for decision makers of the organization. Such as enterprise knowledge management systems (KM), customer relationship management (CRM).

There are differences between information capital and other capitals of the organization. This capital is not simply measurable, because the value of these assets varies depending on organizational processes. But we can measure its value depend on the dimension of creating this kind of capital and the cost of creating it. Being generate and creating value added is done by the information capital in a more complex way than other types of capital.

### 4. The impact of Enterprise Capitals on Each Other

When managers try to engage their organizational resources and capitals to achieve organizational goals, they analyze the impacts that each type of enterprise capital has on another type, in the context of its organization. In the following, we review some of the known impacts of different types of capital.

#### 4.1. The relationship between human capital and economic capital

An individual in the organization may have a cost per capita to the organization, but from the point of view of enterprise capital, this cost has led to the creation of a new kind of capital, because people as a workforce with a similar level of human capital, such as intelligence, education, skills and Experience gets into the organization. [6].

#### 4.2. The relationship between human capital and social capital

Social networks and organizational conditions reinforce (sometimes attenuate) the workplace of people who may have high intelligence, experience and special skills. The relationship between social capital and human capital in an organization is important, because social capital provides necessary opportunities for the organization's success [5,10].

#### 4.3. The relationship between human capital and information capital

Information capital creates by individuals in an organization that is essentially based on the organization's experiences and learning, and this capital is structured, documented and targeted by experts and used by support systems for various intelligent affairs [12].

#### 4.4. The relationship between social capital and information capital

Organizations with a high level of social capital can better manage knowledge; thus, social capital can lead to more effective knowledge and information management and improve organizational performance [12].

#### 4.5. The relationship between social capital and economic capital

Social capital as a soft capital plays a more important role than the physical and financial capital in organizations and leads to coherence among individuals and groups. Lack of social capital will make other capitals lose its effectiveness and make it difficult to progress through organizational development. In an organization where social capital is not known, official controls and laws are important, and the internal and external interactions of the organization are carried out by costly solutions. The fact that the lack of social capital increases the costs of an organization shows its indirect role on organizational incomes. On the other hand, social capital can promote the organizational position in the business in a concrete way [8].

#### 4.6. The relationship between economic capital and information capital

Information capital, when it is in line with the organization's economic goals, leads to more substantial value added than when it is neglected or does not access to this kind of capital.

### 5. Creating an organizational Portfolio

We can categorize soft or hard capitals into one or two groups of four major capitals (human, economic, social, and informational capital). For example, intellectual capital is a type of enterprise capital that is considered both as a human capital and as an information capital. Similarly, organizational experience is a type of human-information-capital (Figure 3).
Table 5. Four types of enterprise capital

<table>
<thead>
<tr>
<th>Assets, Hardware Resources, Financial contracts</th>
<th>Economic Capital</th>
<th>Human Capital</th>
<th>Experience and Skill, Organizational Learning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organizational Knowledge</td>
<td>Information Capital</td>
<td>Social Capital</td>
<td>Organizational Customers, outside Partners, membered Councils</td>
</tr>
</tbody>
</table>

A detailed study of each of the four main types of enterprise capital shows that most organizations have a certain amount of enterprise capital in proportion to their organization type. This provides the opportunity to provide a method for increasing capitalist enterprise productivity. When we can find how to use our resources with maximum efficiency, we can use financial solutions such as portfolios. Here we first define this concept.

5.1. Definition of optimal capital stock (Organization Portfolio)

An optimal portfolio is a combination of capitals or assets that have the following characteristics for an organization (from investment perspective):

1. The negative effects and weaknesses of one of the capital are neutralized or adjusted by one of the other types in the Portfolio. In other words, the added value and the value creation of an existing capital in the portfolio can be used to offset the probable weakness (loss) of the devaluation of the other finance.
2. Under normal circumstances, decreasing value and capabilities of the total enterprise capital in its processes and missions is zero.

The above definition is derived from the definition of a basket of stock capital in bourse [14]. There, when an investor, with a specified capital of value X, purchases shares, if he allocates all his capital to a stock (for example, car shares), he has a high risk to his capital. Therefore, the distribution of capital X in several different stocks (X = X1 + X2 + ... + Xm) will be compensated reduction of returns of a share by increasing the return on the other share.

Now we look at a comprehensive look about the four types of capital. As shown in Table 5, each type of capitals contains hard or soft examples of that capital. These capitals, based on organizational paths, can be partially distributed on the basis of structural necessities. For example, an organization has a daily routine of 100 clients, which, according to the average response time, requires three organization employees to carry out affairs for visitors. Now the distribution of the remaining human capital can be managed according to the strategy of human capital distribution.

In order to be able to distribute the capital for different business paths of organizations, we must divide these paths according to the need for each type of capital. This is important to choice such a combination of capital. The main problem will be the optimal distribution of capital and the effective correspondence to business processes with maximum efficiency.

Table 5. Distribution of corporate capital

<table>
<thead>
<tr>
<th>Capital</th>
<th>Hard</th>
<th>Soft</th>
</tr>
</thead>
<tbody>
<tr>
<td>Economic</td>
<td>Assets, real estate</td>
<td>Business Opportunities</td>
</tr>
<tr>
<td>Human</td>
<td>workforce</td>
<td>Work experience, organizational learning</td>
</tr>
<tr>
<td>Information</td>
<td>System Management</td>
<td>Job documentations, evaluation reports, ...</td>
</tr>
<tr>
<td>Social</td>
<td>The requirements of the social structure</td>
<td>Social Relations</td>
</tr>
</tbody>
</table>

The fact that which capital portfolios (both capital and relative) is the most appropriate portfolio of organizational capital, needs to be examined in the dimensions of organizational work paths. On the other hand, the placement of a good set of portfolio capital requires adequate knowledge of the quantitative and qualitative aspects of capital assets and the effect each one has on each other. In the proposed approach for choosing a portfolio policy, the director of the organization tries to differentiate his or her capital in different (and sometimes separate) processes, which leads to higher value creation.
6. Conclusion

Developing a strategy to create an enterprise portfolio helps managers to select from different types of existing enterprise capitals for different parts of their missions. On the other hand, it provides the opportunity to measure the productivity and profitability of the capitals allocated to different business parts. The approach to assigning a portfolio of capital to services, production, and organizational activities paths is a new idea to guide resources and their performance evaluation. Here, the difficulty of measuring and valuing the types of capitals of an organization may be a barrier to the distribution of enterprise capitals approach, which needs to suggest some solutions for those.

References


