Conceptualizing and measuring the economic value of human capital of the third kind

Corporate culture

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Abstract

Purpose – The purpose of this paper is to deal with the conceptualization and measurement of the economic value of what we have termed “human capital of the third kind”, i.e. corporate culture. It also seeks to draw upon empirical research from the field of culture management to show how the economic value of human capital of the third kind can be measured.

Design/methodology/approach – The paper presents a theoretical framework as well as some empirical research to show how economic value of the third kind can be measured.

Findings – This has provided a different conceptualization of human capital relevant to human resources accounting. It has presented a typology of human capital consisting of three types: the economic value of individuals; the economic value of groups or teams; and the economic value of the total human organization. The paper also summarized an empirical investigation relevant to the economic value of human capital of the third kind. The results of this empirical investigation provide support for the notion that culture, or human capital of the third kind, is a significant component of overall financial success. While the results are not completely definitive, they do provide statistically significant evidence of the impact of culture as a component of human capital. This, in turn, opens the way to a new approach to human resource accounting and value measurement.

Research limitations/implications – Based on this finding, we can conclude that human capital of the third kind (corporate culture) can be measured and that it does have a statistically significant impact upon financial performance. This opens the way to a new direction in human resource accounting.

Originality/value – This paper presents a redefinition of the overall global concept of human capital, and points the way to a new direction for future research in human resource accounting.

Keywords Human capital, Organizational culture, Economic value added, Measurement, Human resource accounting

Paper type Conceptual paper

Introduction

Although the field of human resource accounting has made significant progress in defining and measuring the cost and value of human capital (see Flamholtz et al., 2004), one aspect of the economic value of human capital has been neglected. This is the value of what Likert (1967) once termed “the human organization as a whole” rather than the value of individuals per se.

Most of the prior research in human resource accounting on the theory and measurement of the economic value of human capital has focused on the valuation of individuals, with a few exceptions (Hermanson, 1964). In part, this focus might be the result of an implicit assumption that the whole of the economic value of an enterprise is...
simply the sum of the values of its individual members. This, in turn, is based on a “global construct” of human capital that treats it as a relatively undifferentiated phenomenon.

Accordingly, there has been little or no systematic development of the economic value of what we have termed “human capital of the third kind”, or the incremental value of the synergy of the human organization as a whole as distinct from the value of its individual members.

This paper deals with the definition and conceptualization of the components of human capital, and the measurement of the economic value of what we have termed “human capital of the third kind”. It also draws upon empirical research for the field of culture management to show how the economic value of the third kind can be measured.

**Conceptualization and definition of the components of human capital**

This section deals with the conceptualization and definition of “human capital”. It proposes a typology of three different but related kinds of human capital.

*Human capital is not human capital is not human capital …*  
Unlike the conclusion of the late Gertrude Stein, the astute social critic, who spoke of roses and said “A rose is a rose is a rose”, “human capital” is not human capital is not human capital. The explicit or implicit concept of human capital as a global undifferentiated construct is not conducive to future progress in human resource accounting.

**Towards an alternative paradigm of human capital**

This paper proposes that there are three distinct but related components of the economic value of human capital:

1. the value of individual competencies;
2. the (incremental) value of synergistic teams of people operating in relatively small groups; and
3. the (incremental) synergistic value of the human organization as a whole as distinct from the value of the other two components (individuals and teams).

Each of these constructs are defined and explained in turn below, and their interrelationship is shown schematically in Figure 1.

There has been a prior recognition that there are three components to the economic value of human capital (Flamholtz, 1999, p. 160), but limited theoretical or empirical investigation.

**The economic value of individuals**

Research in human resource accounting has focused upon the economic value of individuals as human capital. In this regard, the value of individuals as an organizational asset has been defined and measured (Flamholtz, 1999) in various ways but always relating to the value of a person’s individual contribution to an organization. For example, as Flamholtz, (1999, p. 160) states:
Thus an individual’s value to an organization can be defined as the present worth of the set of future services the person is expected to provide during the period he or she is anticipated to remain in the organization.

The distinction has been made between “general” and “specific” human capital, but it is relevant to individuals and not to the other proposed components of human capital (Becker, 1964).

There is no need to redefine the construct of an individual’s value to an enterprise per se. However, the present view is that this is a component of the overall value of the human capital of an enterprise, and the sum of the values of all individuals are not necessarily equivalent to the human capital value of the enterprise as a whole. This is the economic value of human capital of the first kind.

The economic value of groups or teams
The concept of the economic value of groups has been identified previously but not well defined (Flamholtz, 1999, p. 172; Likert and Bowers, 1973). It has been treated as an alternative focus on human capital value rather than as an additive incremental component of the total human capital value of an enterprise.

Unlike the construct of individual value, we propose here that there is a need to redefine the concept of the economic value of a group. This is because of the possibility of positive or negative synergy of groups functioning true teams. It is clear that teams can function at higher or lower performance levels than the collection of individuals that comprise them. This is most easily seen and demonstrated in sports teams. For example, in the USA the Los Angeles Lakers professional basketball team had the same two “superstars” (Shaquille O’Neal and Kobe Bryant) before the arrival of Phil Jackson as coach, and yet they failed to win the NBA championship. After Jackson’s arrival, and with his unique style of coaching and leadership, they won three NBA championships. What Jackson was able to do was to make the individuals play as a team rather than as individual “superstars”. Both Bryant and O’Neal also had value as individuals, but the value of the group or team after Jackson joined as coach was an intangible incremental value that was created by effective teamwork, not by individual performance. The value of the team was greater than the sum of its individual parts. This is the economic value of human capital of the second kind.
The economic value of the human organization as a whole
Just as there is an incremental value of specific groups and teams, there is also another dimension or component of human capital in organizations. This is the incremental value of the human organization as distinct from the value of its individuals and groups or teams. This is the incremental value (if any) of the human capital of the organization as distinct from the aggregate value of the individuals and groups that comprise it.

The incremental value of teams and organizational in business enterprises
This same phenomenon of team or organizational value being an incremental intangible asset also exists in complex business organizations. There it is more difficult to identify and measure, but it does exist. We can see it in the financial results of organizations. For example, compare Wal-Mart and K-Mart, two large companies. Both are in the same business. There is nothing that Wal-Mart sells that K-Mart cannot sell. They both sell Johnson & Johnson’s Baby Lotion, Allergen Lens Solution, Colgate toothpaste, and other identical items. Unlike companies such as Amgen, Roche, SAP, Intel, and Reuters, Wal-Mart and K-Mart do not have any proprietary products. The differences in performance between Wal-Mart and K-Mart are attributable to the value of superior intangible assets including the three different kinds of human capital as well as other possible intellectual assets.

The nature of human capital of the third kind
What is the nature or composition of this construct termed “human capital of the third kind”? This can be operationally defined as the incremental (positive or negative) value of the “organization’s culture” as an economic determinant, as explained below.

Culture has been hypothesized to be a determinant of economic performance of organizations (Denison and Mishra, 1995; Flamholtz, 2001; Kotter and Heskett, 1992). It is organizational culture that comprises what we have termed the economic value of human capital of the third kind.

The concept of corporate culture
The concept of corporate culture has become embedded in management vocabulary and thought. Although there are many different definitions of this concept, the central notion is that culture relates to core organizational values. In turn, values are things that are important to organizations and underpin decisions and behavior. All organizations have cultures or sets of values that influence the way people behave in a variety of areas, such as treatment of customers, standards of performance, innovation, etc.

Culture as a determinant of organizational success
The basic notion that culture affects performance is based upon a few key ideas. The first is that culture affects goal attainment. More specifically, companies with “strong” cultures are more likely to achieve their goals than those with relatively “weak” cultures. So-called “strong-culture organizations” are thought to have a higher degree of organizational success (measured in market value or other financial measures of performance) because of a believed link to motivation. As stated by Kotter and Heskett
(1992, p. 16), strong cultures are often said to help business performance because they create an unusual level of motivation in employees.

An increasing number of successful organizations have, at least in part, attributed their success to effective culture management. For example, Starbucks Coffee Company, which has grown from just two retail stores in Seattle (USA) to more than 5,000 stores worldwide during the past decade, views culture as a critical factor in the organization’s success (Schultz and Yang, 1997; Flamholtz and Randle, 1998). Specifically, the company’s cultural paradigm is that:

... the way we treat our people affects they way our people treat our customers, and, in turn, our success, which includes financial performance.

This belief has led the company to a number of human resource practices that are designed to enhance people’s feeling of being valued by the company. These include the widespread use of stock options and the practice of providing full benefits to all employees who work more than 20 hours per week.

In brief, there is support for the notion that corporate culture is a determinant of organizational success. What is different here is that we are viewing corporate culture as a form of human capital – more specifically, human capital of the third kind.

The three kinds of human capital as a whole
The three kinds of human capital and their interrelationship are shown schematically in Figure 1. As can be seen in Figure 1, the three kinds of human capital are shown as components of human capital value by the concentric circles.

Prior research and theory
Some prior research and theory in human resource accounting has recognized these different dimensions, but prior theory and research on the group and organizational dimensions have not made the distinction between the three different components. Rather, they have tended to adopt one perspective (individual, group, organizational) or another as the focus of the valuation attempt. Prior research and theory on this is summarized below.

Research on individuals as the unit of human capital value
Most of the studies of human resource accounting dealing with the valuation of human capital either explicitly or implicitly use the individual as the unit of human capital (Flamholtz, 1971; Lev and Schwartz, 1971; Maher, 1996; Morrow, 1996; Sveiby, 1997).

Flamholtz (1971) proposed a model of the valuation of individuals. It was recognized that there were other components of human capital value, but no method was proposed to measure them. Similarly, Lev and Schwartz (1971) also proposed a model for individual valuation which assumed that the aggregate value of human capital was the sum of the values of the individuals.

Maher’s (1996) study of human resource value in the hotel industry did not address this issue explicitly, but seems to view the value of the “workforce” as the sum of the value of the individuals comprising it. Morrow’s (1996) study of football players as human assets treats the value of total human capital as the sum of the value of the individual player’s contracts. Finally, Sveiby (1997) treats the value of people in the intangible balance sheet as essentially the value of individual competencies.
Research on group and organizational value
To date, Likert and Bowers (1973) have provided the most comprehensive treatment of the groups and overall organizational dimensions of human capital value. However, they treated these two components as a single unit, and did not differentiate between group and/or organizational human capital.

Hermanson (1964) proposed an approach to measure the aggregate economic value of “human assets” owned by a firm. It was based upon the adjustment of the total wages paid to employees by an “efficiency factor”, which in turn was derived from the differential earnings of a firm relative to others in the economy. Specifically, he argued that:

\... since the owned assets [of a firm] lying idle would earn nothing, the difference in rates of earnings can ultimately be traced to the efforts of operational assets. Also it can be argued that operational assets are primarily made up of various human resources.

His approach had the limitation that all of the differential of earnings was assumed to be attributable to human capital. Obviously, some of it might be attributable to other forms of intellectual capital, such as brands or patents.

Empirical support for the existence of human capital of the third kind[1]
We have proposed a typology of human capital of three kinds. As part of that, we have proposed that corporate culture is a form of human capital. Is there empirical support for this view? The answer to this question is “yes”.

This section presents some empirical research designed to assess whether corporate culture (which consists of human capital of the third kind) has a significant impact on financial performance. It describes the nature of the research design, including the research site, the methodology used to measure culture, and the research questions.

Research design
This study was conducted as part of a program of action research on a medium-sized industrial enterprise. The company was engaged in an organizational development program designed to enhance overall organizational effectiveness, and consequently financial performance. During the program, it became apparent that culture management, discussed further below, was a critical area for the company’s organizational development. As a result, it was possible to assess the impact of a company’s culture on its financial performance as a by-product of the ongoing organizational development program.

Research site description: “Banner Corporation”
The research site (for which we shall use the pseudonym “Banner Corporation”) is a US-based, medium-sized industrial enterprise. Banner represents the classic “old economy”. The company is a parts manufacturer for industrial, truck and other automotive businesses. It is a supplier of parts for such companies as Ford Motor Company, Navistar, and Dana Corporation.

The company was formed primarily through acquisitions in a classic “roll up” strategy, a strategy of industry consolidation through acquisitions. It consisted of several different “divisions”, each of which had been a stand-alone entrepreneurial company, with revenues ranging from about $25m annually to about $100m.
Altogether, the 20 divisions totaled about $800m in annual revenue at the time of this study. These divisions consisted of a set of reasonably related technologies, such as foundries and forges. The foundries ranged from processing capacity for “grey iron” to “ductile iron” to “lost foam” to other similar technologies. The nature of the business of such entities is “job order manufacturing”.

The similarities between the divisions present a relatively unique opportunity for comparison. The company had been formed from a set of stand-alone companies, so there was no common Banner Corporation corporate culture. Each of the individual companies, or “divisions”, as they were termed, operated in various parts of the USA. Many still kept their own name and logo after acquisition by Banner Corporation. An organizational assessment had determined that some employees of Banner did not know who the parent company was and others seemed not even to care.

Although this might even have been a sufficient reason to undertake a culture management project, the actual driving reason was to support a fundamental change in corporate strategy. Specifically, the “old” strategy had been to consolidate a fragmented industry and allow the individual companies (divisions) to operate autonomously, with a few corporate policies and systems. The “new” strategy was to leverage the company’s critical mass and use its combined resources to serve large clients, such as Ford, Navistar, Dana, etc. This required a cooperative effort among the divisions of sales and order fulfillment.

Therefore, this research was a component of an overall cultural management program designed to create a common Banner Corporation culture. The organizational development objectives were:

1. to develop a culture or set of values, or a desired culture, for Banner Corporation;
2. to measure the extent to which people throughout the company agreed with the proposed culture,
3. to measure the extent to which people perceived that the organization was actually behaving in ways consistent with the stated culture; and
4. to design strategies to increase the extent to which the stated or desired culture actually pervaded the organization.

The overall culture management program is shown graphically in Figure 2. As can be seen in Figure 2, the culture management process begins with the identification of the existing corporate culture. These are the current actual values of the organization with respect to certain key dimensions, such as treatment of customers, etc. The next step is to formulate the ideal or desired culture of the organization. These are what the organization wants the culture to actually be or become. In addition, this desired culture can be viewed as the organization’s “strategic culture” because it is intended to support the overall strategic development of the enterprise. It should also be noted that steps 1 and 2 can be reversed, with the identification of the desired culture first and then identification of the current culture. This can be necessary in situations where there is no strong pre-existing culture.

The third step in the culture management process is to assess the extent to which the current and desired culture are consistent and identify any “cultural gaps”, that is, significant differences between the current and desired culture. This is accomplished
by means of a culture questionnaire, as described below. The three steps above are the key steps of concern to us in this research. However, for completeness, the remaining steps include:

- the development of action programs to change the culture (step 4); and
- monitoring cultural changes to assess the effectiveness of the culture management program and determine the necessary future interventions (step 5).

Research question
The general research question this article addresses is: is there a relationship between a corporate culture and the financial performance of an organization?

Methodology
This section describes the method for the research as part of the overall culture management process. First, we shall describe the action project at the company. Then we will discuss how the research was conducted as part of that project.

The first phase in the process was to formulate the desired corporate culture, or the statement of core values designed to guide the development and functioning of the organization. Although some organizations have pre-existing statements of values, others (including the current research site) have explicit or implied cultures but not formal statements. In this instance, because it was created as part of a “roll up strategy”, the company did not have an explicit cultural statement.
The first step in this phase was to train the senior management team (including the CEO, CFO, Senior Group VPs, VP of Human Resources, and selected others) in the nature of culture and culture management. The management team was already familiar with an organizational success model, which included culture as one of the key building blocks of successful organizations (Flamholtz, 1995; Flamholtz and Aksehirli, 2000). The model is shown in Figure 3. This model defined culture as the “values, beliefs, and norms which govern or influence the behavior of people in organizations”.

The next step in this process was to develop an explicit statement of cultural values. To facilitate this, a set of key categories were used. These are the key categories, or key areas, in which culture is manifest (Flamholtz and Randle, 2000). They include:

- the way people are treated by the organization, as well as the implicit or explicit view of people;
- the way customers are treated by the organization;
- the standards of performance and accountability;

![Figure 3. Key drivers of financial performance](image-url)
Although there are other possible areas or arenas in which culture can be manifest, these were the ones that were identified a priori as the key starting point for the development of a formal statement of corporate culture.

The next step was to identify a set of statements which defined the desired culture of the organization in each key area (for example, treatment of people, treatment of customers, etc.). The intent was to develop a statement of the ideal way the company should culturally function in all of these areas. This was done through facilitated discussions of the way the organization wanted to work and what it wanted the culture to be on all of these key dimensions. For example, the senior management team discussed the ideal way people would be treated at Banner Corporation and then converted this discussion into a set of cultural statements (see the Appendix for sample cultural statements).

Once these cultural statements were formulated, the next phase was to determine whether there was agreement or “buy-in” throughout the organization. To assess this, these statements were assessed on a Likert scale. A sample is shown in Figure 4. Specifically, the statements were used as part of a cultural assessment questionnaire to determine the degree of agreement by members of the organization.

The questionnaire was administered to all salaried employees of the organization (950). The questionnaire was designed with two objectives:

1. to determine the extent to which people throughout Banner Corporation agreed with the stated or desired culture, and
2. to determine the extent to which people perceived that each division, as well as the corporate office (headquarters), was behaving in ways consistent with the desired or ideal corporate culture.

The response rate was 78 percent. However, what was truly astounding was that over 96 percent of those who responded agreed with the stated or ideal culture of Banner Corporation. This meant that the senior executive team had truly tapped in to the way that people throughout the corporation wanted the company to be managed.

The next phase of the action project to improve culture management throughout Banner Corporation was to conduct a workshop designed to analyze and interpret the data derived, as well as to develop goals and action steps of the effective management of the culture. Since this is not relevant to the current study, it will not be discussed further here.

Hypothesis testing

The data was also used as an input to the research to address the question concerning the impact of corporate culture on the financial performance, or “bottom line”, of organizations as described below. To assess this issue, we compared divisional data with divisional earnings before interest and taxes (EBIT), a classic measure of financial performance and the one that Banner Corporation also uses to assess its own divisional performance. Specifically, we ran a regression between the degree to which each division was perceived by its own personnel to be “living” the desired corporate culture, and EBIT. The former variable can be measured as the degree of agreement between the
desired corporate culture and the culture that is perceived to exist. The basic hypothesis is then that the greater the degree of agreement between the desired corporate culture and the culture that is perceived to exist, the better the financial performance. Stated differently, the divisions that perform best financially are those that behave in ways consistent with the company’s desired culture, whereas the lowest performing divisions (financially) are those that behave in ways inconsistent with the desired culture.

Results
The data derived and used in this comparison are shown in a graph in Figure 5. The x-axis shows a “degree of cultural agreement score”. This is a measure of the degree of similarity between the desired corporate culture and the culture perceived to exist in
each division. It can be viewed as a measure of cultural “buy-in” by the divisions. Operationally defined, this is the extent to which people perceive that their division is behaving consistently with the company’s desired culture. The y-axis presents EBIT values for the various divisions. Accordingly, Figure 5 shows the relation between the degree of cultural agreement between the division and the corporate culture and EBIT for all divisions.

The regression equation describing the relationship among variables in Figure 5 is: 
\[ y = 0.3888x - 18.015, \quad R^2 = 0.4552, \] and was statistically significant at the 0.05 level. This means that approximately 46 percent of EBIT is explained by the variable of corporate culture, or cultural “buy-in”.

**Discussion and conclusions**

The data derived from this study demonstrates that organizational culture does have an impact on financial performance.

**Implications for human resource accounting**

Based on this finding, we can conclude that human capital of the third kind (corporate culture) can be measured and that it does have a statistically significant impact upon financial performance. This opens the way to a new direction in human resource accounting.
Future research
From an academic perspective, the results reported here are preliminary but quite promising. It would be valuable for future research to replicate the current study. However, this will require a research site comparable to the Banner Corporation. The research site does not require a whole industry, only the existence of a large number of relatively comparable divisions. Nevertheless, this is difficult to do in practice.

Conclusion
This work has provided a different conceptualization of human capital relevant to human resources accounting. It has presented a typology of human capital consisting of three types:

1. the economic value of individuals;
2. the economic value of groups or teams; and
3. the economic value of the total human organization.

The paper also summarized an empirical investigation relevant to the economic value of human capital of the third kind. The results of this empirical investigation provide support for the notion that culture, or human capital of the third kind, is a significant component of overall financial success.

While the results are not completely definitive, they do provide statistically significant evidence of the impact of culture as a component of human capital. This, in turn, opens the way to a new approach to human resource accounting and value measurement.

Notes
1. This research study has been reported previously in Flamholtz (2001).
2. This process is described further in Flamholtz and Randle (2000).

References
Appendix. Banner Corporation culture survey

**Purpose**

This survey is being conducted as part of our efforts to define and manage Banner’s corporate culture. Thank you for taking the time to answer these questions. Your input is critical. Only through your participation can Banner achieve the corporate culture that we desire.

**Instructions**

- Your individual responses will be kept confidential and will only be seen by staff at Management Systems who summarize survey data.
- Read each question carefully before answering.
- Use blue or black ink or pencil.
- Fill in or place an “X” or “✓” in the box which best describes your response.
- Seal your completed questionnaire in the envelope provided and return it to your HR Department. Or you have the option to mail the completed questionnaire directly to us in the envelope provided.

**Banner’s cultural principles**

For your reference, the following principles define the culture that Banner desires.

**Our vision**...

*To become the leading component supplier to the capital and durable goods industries on a global basis.*
Our customers …

- We view our customers as the most important element in our business. We will listen to our customers.
- We will make business decisions with our customer’s perspective in mind. This means that we commit to thinking from an “outside-in” perspective versus thinking primarily from an internal perspective about what works best for us.
- We will treat all customers with respect.
  *Although we may have different standards for the level of service we give to selected customers, we value ALL of our customers and will treat them professionally.*
- We will keep our commitments to customers.
- We will use the customer’s measurements as our “scorecard”.
- We will strive to exceed the customer’s expectations.
  *We want to “delight” our customers. To differentiate ourselves from our competition, we need to try to exceed customers’ expectations. This does NOT mean that we will accept unreasonable requests from our customers or that we are committed to providing services that the customer will not pay for.*

Our people …

- Our people are Banner’s most valuable asset.
- We will be known for having the best people in our industry.
- At Banner, we will treat people with respect and preserve human dignity.
- We will provide a safe, clean and challenging work environment for all of our people.
- We will invest in the development of our people.
  *We encourage people to pursue continuous personal improvement, enabling them to grow with the company.*
- We will be equitable in hiring, compensation, and promotion.
- We value every employee’s input.
- We will communicate openly with our employees.

Performance standards and accountability…

- We will continuously improve in everything we do and will strive to be “best in class”.
  *We will measure our performance against the highest standards. Perfection is our ultimate goal.*
  *We will also benchmark our performance against competitors.*
- We expect everyone at Banner to act with honesty and integrity. Honesty is an absolute standard for all of our activities, including communication within Banner, communication with customers, and communication with external agencies. Anything less is unacceptable.
- Within Banner we will communicate clear expectations, evaluate results, give constructive feedback, and reward performance.
  *We will implement corrective action plans when performance is less than expected. Low performance is unacceptable.*
  *We will hold business units accountable for achieving their plans.*
Teamwork and communication . . .

- Open and timely communication on all issues (good and bad) is expected and encouraged.
- Asking for help is encouraged, and we expect assistance to be provided by anyone who has the ability to help.
- We want to be recognized as Banner by everyone (customers, employees, suppliers, shareholders, and the communities in which we operate).
- All divisions will use the official Banner logo as their logo.
- At all levels of the organization, we expect decisions to be made based on what is best for Banner.

*In making decisions at the division level, managers will first consider what is best for Banner – before considering what is best for the division.*

Corporate citizenship . . .

- Banner will be a good citizen of the communities in which we operate.
- We will be visible within the community.

> Whenever feasible, business units will make charitable contributions and participate in local civic organizations.

> We want our business units to be successful, so that good jobs are maintained within their local communities.

- We will be a good neighbor in maintaining plant appearance and complying with environmental standards.

> We will find ways to be a good neighbor, while at the same time running an economically viable plant.