

# Research on the Intelligent Enterprise Based on Intelligent Behavior

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**Abstract** The knowledge economy has already led to significant changes in the workplace, and future changes may be greater. As for many other management directions, it is expected that in the intelligent enterprise, needs for improved performance places different demands on enterprises everywhere. They must provide knowledgeable, intelligent behavior that requires new capabilities. Enterprises have turned to explicit and systematic intelligent behavior practices to make available the intellectual capital needed to perform effectively, internally and relativeing to stakeholders.

**Key words** Intelligent enterprise; Knowledge economy; Intelligent behavior; Stakeholders

## 1 Introduction

Intelligent enterprises have broad horizons with long-term perspectives. They are concerned about their long-term viability and success, and also about how well they serve their stakeholders and constituents. In addition, many managers to create highly effective enterprises with low friction, self energizing, and rewarding work environments that operate with little wasted efforts. The degree to which the enterprise can act intelligently depends on the competencies of its people and its operational capabilities, such as structure, systems, and policies and on driving forces, such as motivation. It also is difficult for most enterprises to determine what is required to make behavior more intelligent. The enterprise can be intelligent in two ways. It can behave intelligently, and it can utilize “intelligence,” that is, competitive information about its environment, targets, competitors, and so on, to achieve its goals. It is the combination of the two ways that makes it possible to achieve objectives exceptionally well.

## 2 The Intelligent Enterprise

Several writers have addressed the issues of the intelligent enterprise. Among those are Friedman et al. (1997), Pinchot (1994), Quinn (1992), Stewart (1997), and Wiig (1994). The intelligent enterprise is an organization which acts effectively in the present and is capable to deal effectively with the challenges of the future. It meets its objectives by implementing its visions and strategies through the actions of individual employees and through its systems, policies, and organizational structure. It makes trade-offs between, and meets the objectives both of the enterprise itself and those of its stakeholders. The management teams express the conviction that knowledge is the principal force that enables the enterprise's ability to act intelligently. They work to sustain enterprise long-term viability by developing, cumulating, and deploying highly competitive knowledge assets to the points-of-action. They expect that intelligent behavior will lead to proper and effortless handling of routine and simple tasks and that nonroutine, complex, and unexpected tasks will be handled timely, competently, and in the best interest of all concerned with suitable balances between long-term and short-term objectives. They believe that consistent intelligent behavior secures competitive leadership and the ability to pursue opportunities and render services that could not be delivered in a different way. For these reasons they need to manage knowledge explicitly and systematically.

## 3 Success Factors for Intelligent Behavior

A basic requirement for intelligent operation is a management philosophy of practiced beliefs that people will act responsibly when given the chance and when understanding that it is in their interest. However, these perspectives must be tempered with the realization that a few employees may have quite different personal agendas that are not in the enterprise's interest. These people must be managed differently. Still, allowing employees to act responsibly when given the chance is not enough. The management philosophy must work to change the enterprise culture, particularly through practices and incentives. The culture must be changed to approve and foster new behaviors. They must become “the way things are done around here.” To achieve that, four factors need to be fulfilled to facilitate and foster desired employee effectiveness and behavior:

### 3.1 Knowledge and resources

Professional, craft, and navigational knowledge and metaknowledge, information, and other

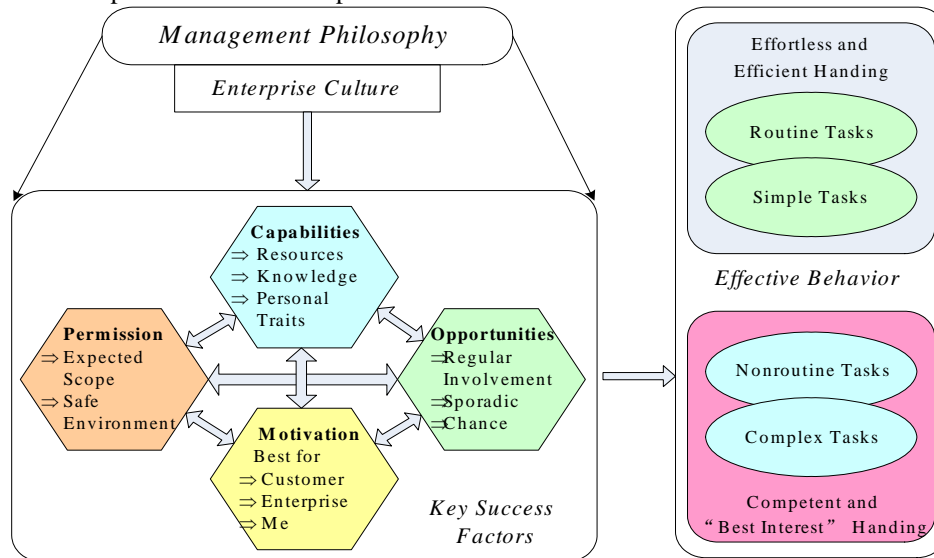
necessary resources must be made available for employees to deliver quality work products that satisfy the requirements of the situation and the general service paradigm.

**3.2 Opportunities**

Employees must be placed in situations where they have opportunity use their capabilities. Workflows must be organized to take advantage of people’s capabilities and to exploit the potentials for innovation and application of diversity.

**3.3 Permission**

Employees must be provided safe environments in which to do their work. That means that they must be given permission to innovate, improvise, and “stretch” enterprise policies and practices beyond predetermined scopes to serve the enterprise’s—and the stakeholders’—best interest.



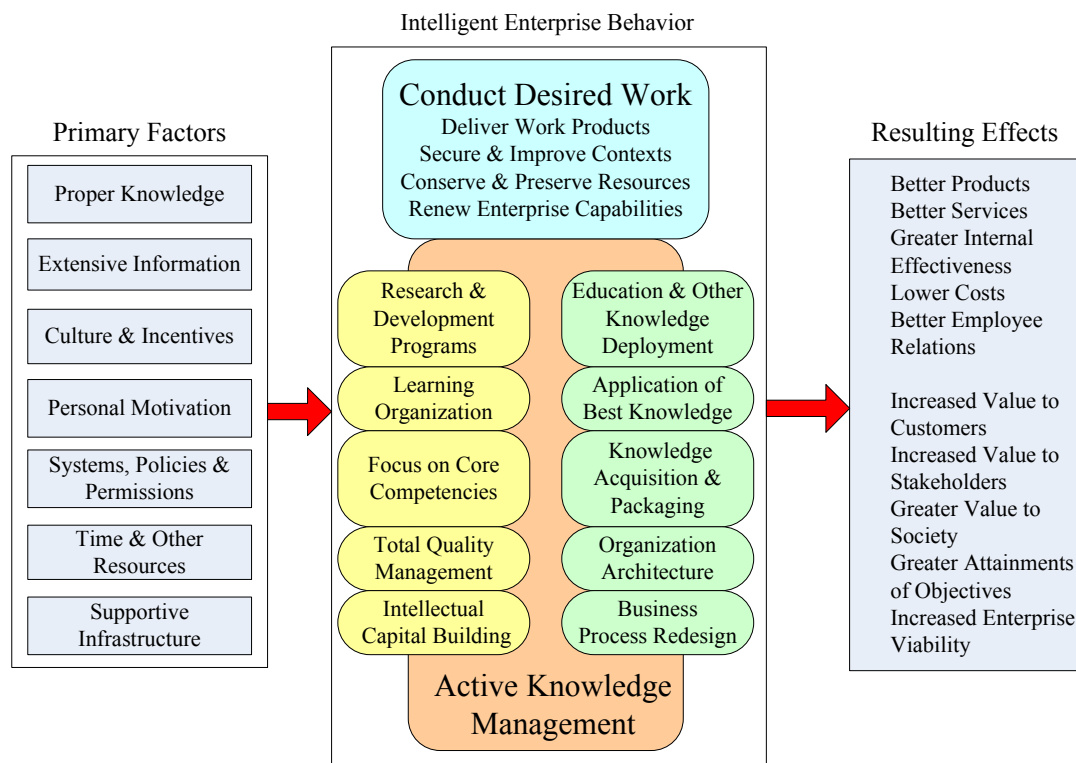
**Figure 1 Management Philosophy and Enterprise Culture Drive Effective Behavior**

**3.4 Motivation**

Employees must be motivated to act intelligently—to do the right thing—by being provided with understanding and emotional acceptance of how it will be of value to stakeholders, the enterprise, and most importantly, to themselves. This factor is most important, and difficult to effectuate. It requires approaches to effective and active communication that will be new to most. The general relationships between these factors are indicated in Figure 1. The figure also indicates the differentiation between routine and non-routine tasks.

**4 Dimensions of Intelligent Behavior**

In general, intelligent behavior results from having available right assets at the point-of-action and to have the ability and motivation to apply them appropriately. The assets include appropriate characterization of the situation (information) and good knowledge (factual and deep understanding, judgment, procedural and manipulative know-how, and metaknowledge). Abilities include capabilities to make sense of the target situation, determine how to handle it, and implement the desired action successfully. In addition to information and knowledge, intelligent behavior also requires freedom and will to act, access to needed resources, and enterprise support for appropriate follow-up. Many factors influence the organization’s capability to act. These factors work together—each must be satisfied to a minimum level before people and the enterprise can act intelligently. Seven primary factors are listed in Figure 2. Together they provide operating conditions that allow employees and the enterprise to perform the work desired. To be sustained, the knowledge-related factors must be supported by active knowledge management. Figure 2 emphasizes some knowledge management-related activities to illustrate their role in strengthening the enterprise’s ability. Other basic requirements also need to be met. They include:



**Figure 2 Intelligent Behavior Depends on the Combined Effects of Many Factors**

- (1) Reliable, comprehensive, timely, and appropriate information organized effectively for use;
- (2) Knowledgeable and motivated employees with good attitudes;
- (3) Motivational culture and environment;
- (4) Supportive and efficient systems, procedures, and organizational structures;
- (5) Dynamic, strategically proactive and operationally stable work environments;
- (6) Proactive and benevolent management and operations practices and philosophies.

Operationally, for the enterprise to act intelligently, it relies on the behavior of its employees and on the effectiveness of its structural capital including its systems and policies. The underlying premise is that knowledge is a fundamental factor behind all of the enterprise's activities. People need to be broadly knowledgeable to perform effectively; in particular they need to have pertinent expertise to:

- (1) Provide competent handling of both well-known and less known tasks;
- (2) Provide innovative approaches to work and all other endeavors;
- (3) Evaluate the consequences of actions;
- (4) Manage relationships and work environments;
- (5) Conserve resources;
- (6) Support personal and enterprise renewal.

## 5 Intelligent Enterprise Success Requires that Everyone Acts Intelligently

For organizations and commercial corporations to conduct sustained operations effectively and successfully, they must consistently provide good products and services. They must have "customers" who continually are willing to seek out and obtain its deliverables. They must act intelligently in both large and small matters. By so doing, they position themselves relative to its competitors, respond appropriately to customers, understand the changes and requirements of markets, create the best deliverables, maintain and improve their resources, obtain the best performance from them, and prepare for the future while remaining solvent in the present. Intelligent behavior is important in all knowledge work. People tend to think of such behavior as particularly important in "valuable" problem-solving or decision-making situations and other high-level tasks such as determining corporate strategy. Enterprise strategy may be determined in the boardroom but it is mostly implemented by the individual actions of employees throughout the organization. De Bono (1992), Kao (1996), Klein (1998), Simon (1976), and

Singley and Anderson (1989) provide deep insights into personal innovation, decision making, and other aspects of cognitive behavior pertinent to the intelligent-acting enterprise.

The very success of the enterprise is directly dependent upon how intelligent-acting it is possible to make it and everyone within it. Consistent intelligent behavior requires that both individuals and organizations: (a) Show behavioral traits that are effective and acceptable; (b) Prepare well; (c) Choose appropriate postures; (d) Provide excellent problem-solving; and (e) Make outstanding decisions and implement those decisions decisively – that is, act intelligently! Overviews of factors needed for people and enterprises to be intelligent-acting are presented in Table 1.

### 6 Conditions that Prevent the Enterprise from Acting Intelligently

In practice, it is difficult to maintain an ideal environment that is without factors that inhibit intelligent behavior. In particular, limited resources, management attention, and understanding of how to perform important functions lead many enterprises to make important mistakes. Some of the more common problems include:

- (1) Failing to make explicit and communicate enterprise direction—its intents, strategies, or objectives—to employees;
- (2) Failing to inform every affected party about operating situation—enterprise and external operational requirements, performance, and expected changes;
- (3) Failing to define and communicate service paradigms (see Section 3.4) as required for everyone to understand what they are expected to do and how they are expected to perform;
- (4) Failing to provide adequate knowledge to deliver quality work;
- (5) Failing to provide sufficient resources (people, funding, facilities, infrastructure, time, and so on) to permit work to be done properly;

**Table 1 Examples of Representative Requirements for Acting Intelligently**

<b>Exhibit effective personality traits</b>	
<ul style="list-style-type: none"> <li>■ Show initiative</li> <li>■ Be willing to accept responsibility</li> <li>■ Be willing to delegate</li> <li>■ Adopt behavior suitable to the situation</li> <li>■ Think before acting</li> <li>■ Be flexible and responsive</li> </ul>	<ul style="list-style-type: none"> <li>■ Be persistent</li> <li>■ Be a good listener</li> <li>■ Think independently</li> <li>■ Be idealistic</li> <li>■ Be principled</li> <li>■ Be willing to self-correct</li> </ul>
<b>Be well prepared</b>	<b>Choose appropriate tactics</b>
<ul style="list-style-type: none"> <li>■ Acquire knowledge from all sources and build it into an integrated and congruous whole</li> <li>■ Be versatile</li> <li>■ Be informed</li> <li>■ Create new and important perspectives by integrating seemingly unrelated information</li> <li>■ Understand the surrounding world</li> </ul>	<ul style="list-style-type: none"> <li>■ Anticipate future developments and plan accordingly</li> <li>■ Invest effort in proportion to the situation’s importance</li> <li>■ Coordinate with all relevant parties and build consensus when required</li> <li>■ Take relevant actions when appropriate</li> </ul>
<b>Provide excellent problem-solving</b>	<b>Make outstanding decisions</b>
<ul style="list-style-type: none"> <li>■ Use all relevant knowledge</li> <li>■ Consider all readily accessible information but use only what is relevant</li> <li>■ Reframe the problem and consider different perspectives</li> <li>■ Be imaginative, innovative and creative</li> <li>■ Analyze situations beyond what is apparent at the surface-beneath symptoms</li> <li>■ Discriminate and categorize</li> <li>■ Reason rationally and make very few errors</li> </ul>	<ul style="list-style-type: none"> <li>■ Accept the challenge and take charge</li> <li>■ Identify the objectives behind a situation</li> <li>■ Consider all relevant alternatives</li> <li>■ Consider consequences</li> <li>■ Set priorities</li> <li>■ Check reality of the best alternatives</li> <li>■ Select the best alternative considering all constraints, objectives and uncertainties</li> <li>■ Communicate decisions convincingly</li> <li>■ Implement decisions effectively</li> </ul>

(1) Failing to provide effective infrastructure capabilities ranging from information technology applications to mechanisms to support knowledge flows;

(2) Failing to capture, organize, and deploy important knowledge for continued organizational

learning;

- (3) Failing to provide necessary incentives and develop motivated employees;
- (4) Inspecting and controlling work results and failing to delegate authority to knowledgeable employees for taking responsibility for the quality of their work;
- (5) Failing to provide sufficiently stable work condition to allow work to be perfected and carried out predictably;
- (6) Failing to provide and maintain appropriate culture and environment and to keep proper order.
- (7) Failing to holding employees accountable for their actions;
- (8) Using excessive negative reinforcement and placing employees in uncomfortable positions;
- (9) Creating bureaucracies where none is needed.

Each of these problems can be avoided by implementing well-known, mostly knowledge-related activities or capabilities. For example, providing knowledge to deliver quality work can involve identifying the desired job description and service paradigm, the knowledge map, and detailed knowledge that should be present at the workplace.

## **7 Intelligent Enterprise Success Rests upon Effective and Knowledgeable Behavior**

Effective behavior is vital. Sustained success and viability require effective execution of internal functions and interactions with environment—that is, consistent intelligent behavior. When individuals act intelligently within an effective framework, the enterprise can act intelligently—operationally, tactically, strategically, and in competent support of its markets. In practice, intelligent behavior means that employees and the organization itself responds to adjust actions to the context by improvising around the given strategy, tactics, and policies. It also means to act creatively and responsibly in everybody's interest to achieve the best results possible. Often that requires collaboration—in a collegial culture bypassing politics and bureaucracy. A major operational objective is to make the service recipients successful by customizing deliverables to satisfy individual needs while at the same time implementing the enterprise goals. The success of an enterprise depends on the interplay of many conditions. Some are beyond influence or control by the enterprise while others are associated with the enterprise's own actions. Still others—and these we consider here—are associated with how the enterprise arranges its internal affairs.

Among these conditions we find:

- (1) The ability to deliver desired service paradigms by individuals, departments and business units, and by the overall enterprise. The ability to act in a timely fashion;
- (2) The capability of employees to deliver the work products for which they are responsible;
- (3) The effectiveness of interpersonal work (teaming and networking) through coordination, cooperation, and collaboration;
- (4) The degree to which work at all levels supports implementation of enterprise strategy and direction;
- (5) The ability to create, produce, and deliver superior products and services that match present and future market demands;
- (6) The effectiveness of outcome feedback on how well work products perform—in the marketplace as well as within the enterprise;
- (7) The degree to which innovations occur, are captured, communicated, and applied;
- (8) The ability of individuals, teams, units, and the enterprise itself to deal with unexpected events, opportunities, and threats;
- (9) The effectiveness of enterprise systems, procedures, and policies in terms of how well they deal with normal requirements and how versatile they are when dealing with unusual and dynamic challenges;
- (10) The degree to which undesirable and dysfunctional personal or systems behaviors are controlled and corrected all of these factors depend to significant degrees on availability and application of good knowledge. Consequently, broad and systematic management of knowledge and intellectual assets becomes a key support activity to ensure enterprise success and viability. In addition to their intellectual understanding of their work and its effects on stakeholders, the enterprise, and themselves, they need to be emotionally engaged to conduct the work required.

## 8 Conclusions

Enterprises of all kinds are expected to improve over time to serve their stakeholders and constituents better. Most often, these improvements require increased intelligent behavior. The basic enabler is the quality of knowledge available at the point-of-action while the employees' motivation provides the major driving force. For the enterprise to act intelligently, it needs to adopt people-centric perspectives of knowledge. Constant learning is needed—led by constant innovation. For this purpose technology only goes so far. It can only provide rudimentary reasoning devoid of innovation with concrete analyses of the past through approaches such as knowledge discovery in databases. People are the intelligent agents that create and act on new opportunities. It is taking advantage of those opportunities that brings the world forward. Advanced management teams ascertain that knowledge-related activities are managed systematically and explicitly. Numerous options are available and many different approaches are pursued.

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# Analysis on the Economic Crisis of Sovereign Nations: Consequences, Reasons and Inspiration

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**Abstract** The global financial crisis, which derived from the U.S. subprime crisis, has seriously affected the development of economy, politics and society of many sovereign nations. Based on the influences and consequences caused by the economic crisis in Iceland and Greece, the internal and external reasons were investigated and discussed. Moreover, some policy suggestions were summarized and proposed to cope with the future economic crisis, such as the implement of prudent macroeconomic policies, the establishment of reasonable industrial structure as well as the enhancement of financial supervision and expansion of international cooperation.

**Key words** Financial crisis; Iceland crisis; Greece crisis; Industrial structure; Financial supervision

## 1 Introduction

With the strike and “infection” of the global financial crisis, during the year of 2008 to 2009, there successively appeared the economic crisis or “bankruptcy” in some sovereign nations, namely in Iceland and Greece. A number of experts and organization continuously focused on the progress and effects of this economic and financial crisis<sup>[1,2]</sup>. As we know, from the viewpoint of individual crisis in Iceland or Greece, some of reasons and consequences of the crisis has been investigated; meanwhile, the evolutionary process, structural characteristics and crisis-shaping mechanism of the crisis were also analyzed<sup>[3]</sup>. This paper is the first one of investigating the reasons and consequence of the economic crisis of two sovereign nations with the method of comparative analysis, and furthermore based on the experiences and inspiration, proposing the reasonable suggestions and measurements to instruct other sovereign nations.

## 2 Impacts and Consequences of the Crisis

### 2.1 Impacts and consequences on economy

The economic crisis in sovereign nations have greatly affected the development of economy, such as the recession of the national economy, currency devaluation, rise of inflation, decline of import and export in volume. The presence of economic crisis has serious destroyed the integrated structure and system of Icelandic economy. Firstly, due to the impact of crisis, the exchange rate of Iceland Króna sharply declined 63.9% against the dollar and 284% against the Euro in October of 2008. At the same time, the market capitalization of the Icelandic stock exchange had decreased by more than 90%. In addition, all trading on the exchange was frozen for two days. The decrease of capital mobility resulted in failing to finance from international market and be unable to meet maturing obligations. Finally, this country has undergone a severe economic recession, and some economists predicted that the nation's GDP will decrease by 10% and the rate of inflation will rise to 75%.

### 2.2 Impacts and consequences on society

As the result of the impactful consequence of the economic crisis in sovereign nations, every industry, such as the financial, banking, securities, investment, service and real estate industries, suffered from negative influence. The three major banks in Iceland have to carry on the nationalization gradually during September to October in 2008. With the radical restructuring of the organizations, the private Sterling Airlines declared bankruptcy, the newspaper 24 Stundir Corporation ceased publication subsequently and one of major bank in Iceland, Landsbanki fired more than 300 employees. By late November of 2008, there were over 7000 registered unemployed in contrast with just 2136 at the end of August in 2008. A similar picture also occurred in Greece: various enterprises were bankruptcy or running-down of business which was attributed to the decline of export and tourism income resulting from the worse economic condition. The organization for Economic Co-operation and Development (OECD) predicted that the unemployment rate in Greece may be over 10% and will last until 2011.

### 2.3 Impacts and consequences on politics

The economic crisis in sovereign nations induced the constant shrinking of many enterprises in profit and resulted in the sharp decrease of workers' welfare, which aroused the turbulence and