

# researchnotes

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## Organizational Culture and Innovation: Understanding the Link

## Businesses today are functioning in highly competitive, rapidly changing environments.

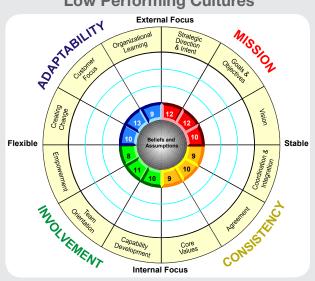
This makes their ability to innovate crucial to longterm survival. Understanding how their culture either supports or hinders the process of innovation is critical if they wish to stay competitive in today's demanding market. To understand the link between organizational culture and innovation better, we examined two different organizational indicators of innovation: new product development scores as rated by employees and the growth assumptions based on stock price.

## **Linking Innovation to the Denison Model**

What do we mean by innovation? For this study, we defined innovation as the successful implementation of creative ideas within an organization (e.g., Amabile et al., 1996; Van de Ven & Angle, 1989). Like many before us, we treated the concepts of innovation and creativity as two separate processes. Creativity is defined as the production of novel ideas. While it is a necessary precursor to innovation, by itself it is only half of the equation. To be truly innovative, an organization must not only be creative, but also must be able to successfully implement those creative ideas. Because of this distinction, the organizational behaviors, norms and values that promote the production of creative ideas within an organization may differ from those that foster the successful implementation of creative ideas (i.e., innovation) (Flynn & Chatman (2001)). Therefore, we expect that the aspects of culture that foster each may differ as well. Many of the behaviors and values that

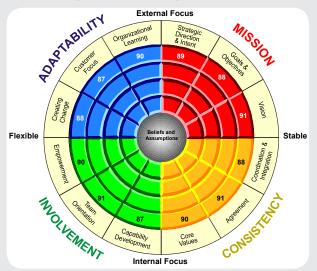
Figure 1





22nd Percentile on **New Product Development** 

## **High Performing Cultures**



69th Percentile on **New Product Development** 

Based on a sample of 350 organizations, we compared the new product development ratings by employees with performance on the Denison Organizational Culture Survey. Low performing cultures had a NPD score at the 22nd percentile. High performing organizations had a score of 69 percentile points on NPD.

promote creativity are represented within the Adaptability and Involvement traits of the Denison model, including:

- risk-taking
- gathering ideas from diverse perspectives
- teamwork
- a strong sense of ownership

Organizations scoring high in Involvement tend to foster a sense of freedom and autonomy that is important for idea generation. They also utilize teams to get work done, placing value on working cooperatively and mutual accountability. This integration of employees promotes a sharing of ideas and responsibility that is conducive to creativity and innovation. High Involvement cultures tend to build a sense of capability and ownership in their employees, and therefore create an environment in which creativity can occur.

Likewise, Adaptability is also important for creativity. Organizations who are market- and customer-focused create a diverse network of ideas for learning and change through interaction and understanding of their people, customers, and their competitors. They encourage employees to take 'calculated' risks and promote direct communication with their customers in order to develop creative responses to customer needs. If leaders want to encourage creativity in their organization, they need to develop and support a culture high in Adaptability and Involvement.

As we know, generating creative ideas and actually implementing them are two different activities. While organizations high in Adaptability and Involvement are likely to encourage creativity, the cultural behaviors and values needed to implement creative ideas and drive innovation are found in other areas of the Denison model. Many of the key attributes important for innovation are measured in the Mission quadrant, including:

- a clearly stated mission and vision
- shared goals and objectives
- a strong organizational identity

Having a clear vision allows for the development of new ideas that are aligned with the direction in which the organization is moving (West, 1990). Clear goals and direction provide a road-map for the challenging journey of translating ideas into products and services. If organizations have the creativity but are not able to focus on a common direction, they won't be able to translate their creative ideas into viable business offerings.

As noted, Adaptability is important for generating creative ideas, and it continues to play an important role in execution as well. Strength in this trait helps ensure that the organization is choosing to implement ideas that the market values and needs. Organizations strong in Adaptability tend to engage in educated risk-taking: they learn from their successes and mistakes and the successes and mistakes of others.

How does Consistency play into the innovation equation? Consistency is also important to the innovation process because organizations must have the systems and processes in place to be able to deliver creative ideas. Lack of agreement within an organization can hinder innovation as much as coordination can encourage it. In the end, what we expect to find is that culture matters and organizational cultures that are well balanced show the best evidence for fostering innovation and growth.

To measure innovation we examined two key indicators: employee perceptions of new product development and the growth assumptions associated with an organization's stock price. Both employee perceptions of new product development and growth assumptions more closely measure an organization's ability to innovate and less directly measure the creativity part of the process. Therefore, we expected Mission and Adaptability to be particularly important to these two indicators of an innovative organization.

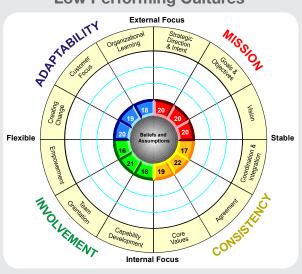
### **The New Product Development Indicator**

First we looked at employee perceptions of their organization's new product development as an indicator of innovation. After taking the Denison Organizational Culture Survey, employees were asked to rate their perceptions of their organization's new product development. Employee's could choose "1-low performer" if they felt their organization performed poorly up to "5-high performer" if they felt their organization performed well.

We used a sample of 350 organizations from 19 different industries who had completed the Denison Organizational Culture Survey from 1995-2006. We sampled from a broad population of organizations of varying size as well as public and private organizations.

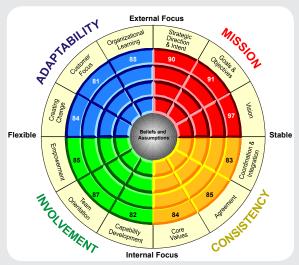
## Figure 2

## **Low Performing Cultures**



**Average Growth Assumption: 26%** 

## **High Performing Cultures**



**Average Growth Assumption: 65%** 

A sample of 118 publicly traded organizations was used to compare organizational culture and growth assumptions built into a company's stock price. Those performing well on the Denison Organizational Culture Survey had an average growth assumption of 65%, while those scoring in the first quartile had a growth assumption of only 26%.

The results from these analyses support the link between organizational culture and innovation. Figure 1 shows those organizations with low culture scores across all indexes (i.e., those organizations that score below the 50th percentile on all 12 indexes), have an average new product development score that ranks higher than only 22% of other organizations in the database. In contrast, those organizations with high culture scores across all indexes (i.e., those organizations that score above the 50th percentile on all 12 indexes) have an average new product development score that ranks higher than 69% of other organizations.

#### The Growth Indicator

How would our hypothesis hold up against an external measure such as stock price? In the second part of the study, we looked at stock prices to calculate the market's expectation of how the organization will grow in the future. Growth assumptions were calculated by taking an organization's market value minus its steady-state value (market value - steady-state value = growth assumption). An organization's steady-state value represents the value of a company based on its current free cash flow. When a company's steady-state value exceeds its market value, an organization would not have to grow at all to justify its current share price, and the market expects free cash flows to decline. When an organization's steady-state

value is smaller than its market value, all other expected profits would have to come from growth. So the growth component provides a quick way to gauge the growth assumptions built into stock price.

For this part of the study, a sample of 118 publicly traded organizations from 37 different industries was used to examine the relationship between culture and the expectations of an organization's future growth. Each organization was reviewed to ensure that the employees sampled were representative of the entire organization so that we could be confident that each organization's culture was adequately represented.

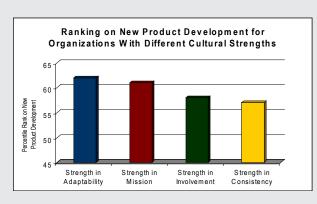
As seen in Figure 2, for organizations with low scores across all 12 indexes of the Denison model, an average of only 26% of their market value can be attributed to future growth. Organizations with high scores across all 12 indexes, however, have above average growth assumptions with growth representing an average of 65% of these organizations' market value. The stock price of these organizations reflects above average expectations of future growth. These findings support the idea that all of the traits of the Denison model are important to innovation. Organizations with strengths across all areas of the model have notably higher new product development scores and also have much higher expectations of growth built into their stock price.

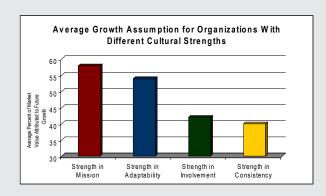
#### Conclusion

These findings suggest that organizations with higher culture scores rank higher on new product development and are expected to grow more in the future than those with low culture scores. Additional findings [Figure 3] suggest that being strong in the externally focused traits of Adaptability and Mission is more advantageous to innovation than being strong on the internal traits of Involvement and Consistency. Even with a focus

on external traits, we find that all of the traits of the Denison model play a role in how well an organization innovates. Involvement and Adaptability are important to encouraging creativity and Mission and Adaptability are important to execution and implementation resulting in innovation. Those organizations that are able to balance the creativity generating aspects of their culture with the ability to implement creative ideas are those that are most likely to continually innovate and remain competitive.

Figure 3: Looking for Innovation? Foster Cultures Strong in Adaptability and Mission





While research shows that organizations that are able to balance strengths in all areas of the Denison model are best able to implement creative ideas, those with high marks on innovation tend to be strongest in Adaptability and Mission. Organizations strong in Adaptability and Mission have higher average percentile scores on new product development than do organizations strong in Involvement or Consistency. This tells us that Adaptability and Mission are particularly important to the successful development of new products. Organizations with strengths in Mission and Adaptability have significantly higher growth assumptions than those with strengths in Involvement and Consistency.

#### **Related Resources**

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