Allied Academies
International Conference

Reno, NV
October 15-17, 2008

Academy of Strategic Management

PROCEEDINGS

Table of Contents

THE GREAT NASA GRAVITY MYSTERY - SOLVED! (THE LAW OF CONSERVATION OF FLOW EXPLAINS THE PIONEER ANOMALY)

Andrei G. Aleinikov, International Academy of Genius
Aleini13@comcast.net
Michaella McFarland, International Academy of Genius
superstarreportes@yahoo.com

ABSTRACT

Despite a number of hypothesis offered for the explanation of the Pioneer anomaly (a.k.a. Pioneer effect, Pioneer acceleration), Tariq Malik in 2007 stated that the NASA's Great Gravity Mystery still remains unsolved (Malik, 2007). Moreover, new spacecraft and probes (Voyager, Galileo, Rosetta, Cassini, NEAR) added new data to the abnormal acceleration, and now it cannot be discarded any more as instrumental error. This report shows that Pioneer anomaly can be explained by the new Law of Conservation, the Law of Conservation of Flow. As we mentioned on our previous work, the new Law of Conservation of Flow (the rate of mass change) is applicable to all physical, chemical, biological, and economic systems (Aleinikov & McFarland, 2008a) and can be used for the explanation of Pioneer effect (Aleinikov & McFarland, 2008b). This paper builds on the previous work and takes into account additional spacecraft data to explain this most famous physical anomaly.

BACKGROUND

The ""Pioneer anomaly" or "Pioneer effect" is the observed deviation from expectations of the trajectories of various spacecraft flying through the solar system to its outer edges. It is named after Pioneer 10 and Pioneer 11 spacecraft. According to the Pioneer program specialists, these spacecraft were slowing down slightly more than expected from influence of all known sources.

The attempts to explain this anomalous acceleration were numerous. To summarize them, Paul Marmet in his paper "Anomalous Acceleration of Pioneer 10 and 11: Dust Density in the Kuiper Belt" mentioned the following:

- pressure of the solar radiation on the spacecraft
- the solar wind
- the solar corona perturbation
- electromagnetic forces
- the influences of the Kuiper belt (dust or gravitational)
- stability (or rather instability) of the references of atomic clocks
- stability of the antenna (Paul Marmet, 2003).

Some other scholars offered to take into account the drag of interplanetary dust, cosmic rays and hot plasma - as external causes. There is also an idea to analyze the gas leaks, including helium from the spacecrafts' radioisotope thermoelectric generators - this is the internal reason. Quite a few authors propose the creation of new physics dealing with invisible dark matter, some forces created by other dimensions that we don't understand, or different (than we think) work of gravity (see for example, Britt, 2004). Many scientists and lecturers in physics call it "unknown mysterious force acting in the Universe" (Pshirkov, 2008). Nevertheless, despite a number of hypothesis offered for the explanation of the Pioneer anomaly, as we mentioned in the Abstract, Tariq Malik in 2007 stated that the NASA's Great Gravity Mystery still remains unsolved (Malik, 2007).

Because none of the offered hypotheses gives a final answer and none explains the anomaly properly yet, our task is to find a reasonable and calculable cause for the acceleration (positive and negative) and to offer some credible ways of its scientific testing.

APPROACH AND HYPOTHESIS

Since the anomalous acceleration effect (called anomaly) was detected during the flight through the solar system, our decision was not to take into account the termination shock, heliopause, bow shock and any influence of the galactic cosmic rays. So first of all, we decided conceptually to stay within the solar system phenomena.

Second, according to our hypothesis, it is not the unified mysterious force, but a combined counter-pressure that makes the spacecraft slow down. For the explanation of this phenomena we need a new law - the Law of Conservation of Flow. Let's take it from our previous works.

> "…The Law of Conservation of Flow (the rate of mass change) states that flow remains the same if the conditions remain unchanged. The mathematical formula of Flow is the following: $Flo = m : t = const$ (where *Flo* is Flow, *m* is mass, and *t* is time). The range of measurement for Flow is L^3T^{-3}. A new unit for measuring the Flow is called "Mim" (coined from the first and the last name of one of the discoverers, Michaella McFarland)."

Some explanation is required to the case of space flights. Traditional understanding of flow is that of liquid/gas going through shores/banks or through the pipelines (i.e., fluid substances through solid matter). In such cases the borders of flow are stable and unchangeable (at least relatively), while liquid/gas constitute the moving part, the changing part of the flow. In an opposite situation, an object going through liquid/gas (never mind how low the density is) will have this liquid/gas flowing at it - like a boat moving in the lake or river, like an airplane moving through the air. In the air environment (Earth), all automobile and air industries are fighting against it to improve the efficiency of vehicles moving through the flow.

Artificial satellites launched to a certain orbit around the Earth have to boost their engines every several days to maintain the necessary speed that constantly decreases due to the collision with the molecules of the atmosphere gases (hydrogen, oxygen, carbon dioxide, etc.). The amount of gas molecules in the outer space near the planet Earth is observable: it creates resistance and must be taken into account in the movement and operations of these satellites.

In the outer space far away from the Earth, the number of gas molecules per volume (density) is much smaller, the gas becomes predominantly hydrogen, but still this number never goes to zero. For instance, the outer space vacuum density is 1×10^{-6} to $< 3 \times 10^{-17}$. It means that

- interplanetary space contains 10 molecules per cm^3
- interstellar space contains 1 molecule per cm^3
- intergalactic space contains 10^{-6} molecules per cm3.

The interplanetary space is still a gas - a Hyper Low Density Gas (HLDG). This gas behavior may be different from the low density gas (Hoffman, Wong & Krauss, 1991) and from the traditionally understood gas, but it is still a gas.

Therefore, the hypothesis states that it is the interplanetary outer space vacuum, or rather the Hyper Low Density Gas, that decelerates the space ships moving in this flow. The Law of Conservation of Flow takes this seemingly miniscule flow into account and demonstrates that this flow will resist the movement of Pioneer 10 and 11. The constant bombardment of the surface of the spacecraft will result in the negative acceleration, considered to be an anomaly.

A simple multiplication of HLDG density (10 molecules per cubic cm) to the number of square centimeters in the area of the Pioneer spacecraft (about 6,600 cm^2) and to the number of centimeters in the covered flight path (12,000,000,000 km x 1000 meters x 100 cm = 12×10^{14}) gives us a staggering number of about 8×10^{18} molecules that hit the craft. The speed of this "bombardment" ranged from 8 to 17 km per second. So every second of the flight, every minute of the flight for many years, there was the combined force acting against the flying spacecraft.

A possible experiment, based on the Law of Conservation of Flow, to prove/disprove this hypothesis is described, too. It can be conducted on Earth (without launching) to save millions and billions of dollars to the tax payers. Our team certainly needs cooperation of the space researchers in the further analysis of the real data from *Voyager, Galileo, Rosetta, Cassini, NEAR*, and maybe together we can solve the great NASA gravity mystery.

CONCLUSION

When calculations and testing are done and they prove explaining the "anomaly," the new Law of Conservation of Flow may save the classical physics from the "necessity of the new physics" (Occam's razor). The classical physics is far from being exhausted, and 10 new laws of conservation are the proof (Aleinikov 2007, 2008).

THE LAW OF CONSERVATION OF VOLUPOWER APPLIED TO A GLOBAL NUCLEAR WEAPONS TENET

Andrei G. Aleinikov, International Academy of Genius
aleini13@comcast.net
David A. Smarsh, Naval Postgraduate School
smarshd@aol.com

ABSTRACT

This presentation describes the application of the Law of Conservation of Volupower as a Nation-State Global Power Descriptor (NSGPD) in the domain of the nuclear power. Our previous work defined the Law of Conservation of Volupower and showed that the law is applicable to physical systems as well as complex economic and military systems (Aleinikov & Smarsh, 2007). Our next work expanded the concept of Volupower as a universal basis of comparing different nation-states and delineated the five-step process to analyze a nation-state system, then furthered this work to define Volupower as a Nation-State Global Power Descriptor for the particular countries (Aleinikov & Smarsh, 2008). This particular research addresses a different application of Volupower that is applied as a Global Nuclear Tenet. Volupower expands the Bartini/Kuznetsov LT system of interpretation of laws of physics (Bartini, 1963, 1965, 2005; Kuznetsov, 2000) and builds up on the two laws introduced by Aleinikov (Aleinikov, 2006 - 2008). The Law of Conservation of Volupower states that under ideal/unchanging conditions Volupower (volume spread of power) remains constant. The formula for Volupower is $Vlp = P \cdot S^3 = const$ *(where Vlp is Volupower, P is Power, S is Distance). The unit of Volupower, called Smar (in honor of David Smarsh - one of the discoverers of the Law), is used to measure and compare the Volupower of nation-states and specifically the Volupower of the nuclear strategic arsenal.*

INTRODUCTION

Nuclear weapons since their invention have been one of the most important tenets of a nation's military power. Nuclear weapons, as history has proven, have been used to prevent, deter, and end wars. For example, it was a nuclear bomb attack that helped to end the conflict with Japan and thus to end World War II. Later, during the cold war, both the USSR and the U.S. were engaged in a weapons building race that deterred war between the two countries and two camps. Currently, there are nations that strive for developing their own nuclear weapons, but the question is whether they have the delivery means that would make this weapon really dangerous. The study of Volupower introduces a method to quantify the strength of weapon by taking into account the volume coverage characteristics such as the delivery means to see the compound potential projection of a nation's ability. This analysis will allow leaders of all ranks to assess a nuclear threat potential on a single scale.

ESSENCE

The basic concepts of Volupower have been published in (Aleinikov & Smarsh, 2007, 2008). For convenience, it's short description is provided below.

The term offered for the phenomenon of volume spread of power -Volupower - is quite transparent. The range for measurement for Volupower is L^8T^{-5} (where L is length and T is time) that further expands the Bartini/Kuznetsov system. The Law of Conservation of Volupower states that under ideal/unchanging conditions Volupower (volume spread of power) remains constant. The formula for Volupower is $Vlp = P \cdot S^3 = const$. The relationships with the other concepts are the following: $Vlp = Exp \cdot S = Ext \cdot S^2 = E \cdot S^3/t = const$ (where Vlp is Volupower, Exp is Expancia, Ext is Extencia, P is Power, E is Energy, S is Distance, t is Time). A new unit for measuring Volupower is called Smar. Mathematically, 1Smar = 1watt · 1m^3. For additional information, see Aleinikov & Smarsh 2007.

Previous work outlined how to apply the concept of Volupower to a socio-political system to convert all numerous factors into one measurement - a process to quantify numerous characteristics. The first step is to define the elements that make up the system itself while holding the environment constant. The second step is to measure or quantify the elements. The third step is to convert the measurements of the elements into a common unit. In terms of Volupower, the unit is a Smar. The other measurement units could be first converted into power, then to Smar. Once all elements have been measured and converted, then the fourth step will include adding the parts of the system. The outcome describes the overall potential of the system power. Finally, as step five, the result must be multiplied by a coefficient of the political power.

The application of Volupower concept to nuclear weapons is a subset of the system's approach as described above and is a crucial part of the assessment for a nation's military power overall. Singling this out will highlight the importance of Volupower calculation as a method to determine a nation''s power and the measurement methodology for nation states.

After repeating this process for the second or subsequence nation-states, certain conclusions can be drawn from comparing the potential of these systems nuclear power.

CONCLUSION

Assessing nuclear Volupower of nation-states provides a measurement of nuclear potential that leaders can use to determine risk factors. Taking into account elements such as the amount of nuclear charges as well as the numbers of delivery means creates a simple vision for complex (and often overcomplicated) comparisons. Our approach allows researchers and leaders of all ranks to generalize and visualize the volume of power, Volupower.

PRESSURES FOR THE CREATION OF A MORE INDEPENDENT BOARD OF DIRECTORS IN THE POST-RESTRUCTURING PERIOD

Luke Cashen, Nicholls State University
luke.cashen@nicholls.edu

ABSTRACT

This paper examines the relationship between board of director independence and restructuring. Although poor performance driven by inadequate governance is a widely investigated antecedent of portfolio restructuring, it is also widely contested since governance structures of restructuring firms are automatically labeled as weak. Research has not proven that governance is weak in the pre-restructuring period, yet this philosophy has become institutionalized. This paper incorporates institutional arguments by suggesting that firms will adjust governance structures to reflect socially valid indicators of governance greater board independence. Results revealed that firms do modify board independence in the post-restructuring period.

CRITIQUE OF A PREMISE: ILLUMINATING CRACKS IN THE AGENCY THEORY FRAMEWORK

Scott B. Droege, Western Kentucky University
scott.droege@wku.edu
Shane Spiller, Western Kentucky University
shane.spiller@wku.edu

ABSTRACT

Agency theory has contributed much in explaining relationships between principals and agents. As with any theory there are premises at its foundation. This paper offers a critiques of one such premise; namely, the information as a commodity premise. This premise is critiqued by considering (1) the tacit information literature and (2) logical inconsistencies of the assumption when outcome uncertainty is present in the agency relationship. This discussion further considers the contingent validity and robustness of agency theory in situations in which the information as a commodity premise is violated.

METHODOLOGICAL TRADEOFFS IN DEVELOPING CORE COMPETENCE RELATED THEORY: THE VALUE PROVISION SITUATION

William Edgar, University of Arizona
Chris Lockwood, Northern Arizona University
Chris.Lockwood@nau.edu

ABSTRACT

This article reviews methodological tradeoffs inherent in developing theory related to core competencies. Integrating the position and resource-based views of strategy, it presents an argument that such theoretical development will occur through researching corporate value provision situations encompassing a nomological network of core competencies, the corporate processes they enable, and the customer value delivered by these processes. Next, it briefly discusses phenomena included within this network. Then, the article reviews the applicability of three classes of methodologies to this nomological approach: 1) Field research, including interviews and observation; 2) Survey research; and 3) Unobtrusive research, including document analysis and analysis of existing statistics. Finally, it identifies issues that arise from using these methodologies to develop competence related theory.

THE IMPACT OF OSTRICH MANAGERS ON STRATEGIC MANAGEMENT

Mildred Golden Pryor, Texas A&M University-Commerce
Sonia Taneja, Texas A&M University-Commerce
Leslie A. Toombs, University of Texas at Permian Basin
J. Chris White, ViaSim
Toombs_l@utpb.edu

ABSTRACT

This paper describes the differences between Ostrich Managers and Strategists, offers the 5P's Model for successful strategic leadership and management, and discusses options for moving from Ostrich Manager to Strategist. In addition, the article reminds us that Ostrich Managers hide from the present and fail to contemplate the future while Strategists seek to understand the present and use it as a foundation for confronting and/or inventing the future.

INTRODUCTION

One of the most important roles a manager can play is that of strategist. However, many people in authority function as ostrich managers rather than strategists, thereby limiting their own effectiveness as well as the effectiveness of their organizations. By choosing to positively impact the strategic management of an organization, its leaders can help determine the organization's future as well as its influence on the history and future of the world. Yet ostrich managers choose not to have such positive impact.

WHAT IS AN "OSTRICH MANAGER"?

The term "ostrich manager" comes from the belief that an ostrich will bury its head in the sand to protect itself when faced with a threat. In reality, when confronted with a perceived threat, an ostrich will flatten its head to the ground until the threat is gone. By feigning death, the ostrich hopes to avoid a predator's attack. As a result of this behavior, ostriches have achieved notoriety for "burying their heads in the sand" in response to real or perceived environmental threats. This is a very simple strategy—ignore the threat and maybe it will go away. However, many times the threat does not go away, and this can make the situation worse. By "burying its head in the sand" an ostrich reduces the possibility for success of other potential responses (such as fight or flight).

Many human beings also exhibit ostrich behavior. They tend to avoid situations that are perceived as discomforting or threatening. Sometimes they even pretend that these situations do not exist. While it is not productive for any employee within an organization to exhibit this behavior, it is especially detrimental when a manager has this mindset because of the sphere of influence that a manager typically has. The managers at the top of the hierarchy represent the greatest danger.

Unfortunately, in some organizations many managers at all levels seem to have an ostrich mentality. Kipp (2004, pp 63-64) suggests that "some (ostrich) leaders have disempowering charisma . . . and absorb only the positive projections around them, seeing the world as they wish it to be and resisting both messages and messengers to the contrary."

Similar to an ostrich avoiding a threat by "burying its head," an ostrich manager avoids the truth or reality because it is perceived as threatening or discomforting. Whether this threat or discomfort comes from a dysfunctional relationship with another person, some bit of information, an employee's idea, or another actual or perceived situation, the ostrich manager reacts or responds by ignoring the threat, putting it aside, or pretending that it does not exist.

Even when the correct action or solution is evident to everyone, ostrich managers are experts at rationalizing and making excuses for not taking an appropriate action or permanently solving a problem. Ostrich managers are not leaders seeking development or change. They are bureaucrats who seek safety and status quo. Sometimes, ostrich mangers become lazy or seem to be petrified by fear.

Managers act like ostriches for many reasons including fear of change and uncertainty, the discomfort of learning and personal growth, the discomfort of unpleasant information, protection of one's ego or position in a company, and the comfort of the current familiar situation.

Ostrich managers attempt to avoid responsibility by delegating it to their direct reports. Attempting to delegate responsibility violates a management principle relating to authority and responsibility. People can not delegate their own personal responsibility. When someone delegates to another person the authority to do something, the person receiving the authority is then responsible (i.e., accountable) for doing it. However, the "delegator" is still personally responsible for the results. For example, the president of a university delegates to people under his or her direction the authority to ensure that hiring practices are legal and ethical. Such authority carries with it commensurate (coequal) responsibility. If in the process of hiring a teacher, a team of teachers violates an equal employment law and the injured person files a lawsuit, he or she could sue (and hold responsible) the team of teachers, the department chair, the academic dean, the academic vice president, president, et al. In other words, everyone in the chain of command from the president to and including the team of teachers would be responsible for the violation of the law because the president could only delegate his or her authority, not personal responsibility.

WHAT IS A STRATEGIST?

According to Hitt, Ireland, and Hoskison (2008, p. 22), "strategic leaders are people located in different parts of the firm using the strategic management process to help the firm reach its vision and mission." Martin (2007, pp. 60-62) says that people are "drawn to stories of effective leaders in action . . . their bold moves, often culminating in successful outcomes, make for gripping narratives. But this focus on *what a leader does* is misplaced . . . because moves that work in one context often make little sense in another, even at the same company or within the experience of a single leader. A more productive, though more difficult, approach is to focus on *how a leader thinks*." Strategists think differently. They are integrative thinkers who willingly confront messy problems and complex situations. These integrative thinkers are simply putting to work the human capability to simultaneously hold opposing views in constructive tension and contemplate them in such a way that they are able to "think their way" toward superior ideas (Martin, 2007). Kotter (1990) might differentiate a bit differently (i.e., between managers and leaders). He says that management is about coping with complexity and leadership is about coping with change (or perhaps initiating change as they invent the future). So it would appear that Kotter is addressing strategic managers as well as strategic leaders.

Martin (2007, p. 67) goes on to say that "integrative thinking is a 'habit of thought' that all of us can consciously develop to arrive at solutions that would otherwise not be evident." In fact, he suggests that we should teach integrative thinking as a concept in business schools (Martin, 2007). Strategic management courses are an obvious choice of where to teach integrative thinking.

While Ostrich leaders hide from the present and fail to contemplate the future, strategists seem to be passionate about understanding the present and using it as the foundation for inventing the future. Strategic managers and leaders simultaneously develop and execute plans that focus on the short term success and long term viability of their organizations. They understand that strategic execution is the key to long term and short term success (Pryor, Anderson, Toombs, and Humphreys, 2007).

THE 5P'S MODEL FOR STRATEGIC LEADERS

The 5P's Model (Figure 1) can be used to manage all types of organizations. It includes five elements which must be aligned for an organization to be the most successful. Those five elements are: Purpose, Principles, Processes, People, and Performance (Pryor, White, Toombs, 2007, 1998).

Figure 1

5 P's Model for Strategists

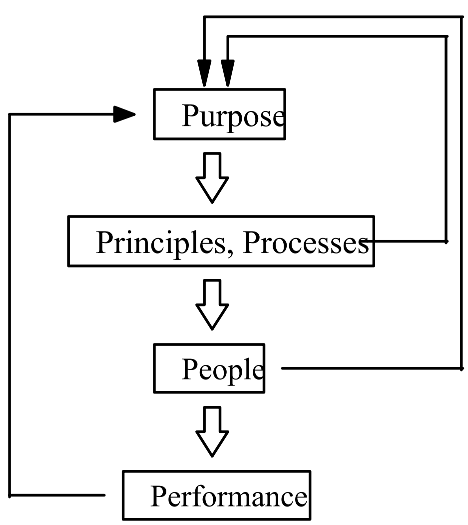

Figure 1 depicts the relationships among the elements of the 5P's Model. Purpose—the strategic direction element—includes mission, vision, goals and objectives, strategy development and deployment/execution, and measurement and feedback. Principles include core values and operating guidelines. Core values are what you care about passionately and serve as the basis for operating guidelines. Processes are the systems and structure of the organization. This is how work gets done. People are the individuals and teams who do the work—the management and non-management people whose ideas and actions drive the success or failure of the organization. Performance includes measurement and results as well as the feedback system. The Purpose (strategic direction) impacts the Principles and Processes which influence the People who accomplish Performance results.

As the Purpose (strategic direction) of an organization is being developed, organizational leaders should also define their core values and operating guidelines (the Principles element of the 5P's Model). If they care about innovation, organizational leaders should empower their People and involve them in managing their Processes, measuring results, tracking Performance, and making improvements based on Performance results. Ostrich Managers are not as likely to think and act strategically. Therefore, it is more likely that their strategist counterparts are the ones who will understand and use the 5P's Model to manage their organizations. Understanding, utilizing, and aligning the elements of the 5P's Model positions an organization for success in the future as well as in the present.

MOVING FROM OSTRICH MANAGER TO STRATEGIC LEADER

Once a manager encounters a stimulus that causes discomfort or a stimulus that is a perceived threat, he or she responds as a strategist or an ostrich manager. The strategist will accept all data as being potentially beneficial, evaluate the data, determine its usefulness, and act based on the data. In fact, strategists are especially eager to receive information that is potentially threatening so that their actions can be proactive. Strategists invent the future and, therefore, value each piece of data as a contribution to the future.

Ostrich managers tend not to invent the future. Instead, they protect the status quo because changes are perceived as threats and sources of discomfort. Yet, in the past, it was most often the ostrich managers who were successful (and who often got promoted) because they were good at "doing what we've always been doing." They did not rock the boat or make waves. They were squeaky clean, comfortable replicas of the bosses who promoted them. In today's business environment, this generally tends to be a less successful approach.

The good news is that ostrich managers can choose to become strategists. Notice that they must ***choose*** this behavior. Knowledge is useless unless it is applied; and awareness is detrimental if it is not accurate. While old habits die hard, it is still possible to change behavior such as ignoring information or pretending that it does not exist. However, before managers can change their behavior, they must change their fundamental assumptions because assumptions are the drivers of behavior. Ostrich mangers hold the following fundamental assumptions: Self preservation is more important than company preservation; short term results are a valid predictor of long term results; protecting people from the truth helps them more than revealing to them the truth; and problems will go away or resolve themselves if ignored. The fundamental assumptions of strategists are the opposite: Self preservation is accomplished through company preservation; short term results are not a valid indicator of long term results; people need to know the truth so that they can act accordingly; and problems will only get worse if ignored.

After understanding their own fundamental assumptions, managers should evaluate the extent to which they are ostrich managers and decide the extent to which they wish to be strategists. They then need to brief their team members, staff, and others about the need for strategists and the dangers posed by ostrich managers at any level of the organization. At this point, they can solicit help from others in their respective journeys from ostrich manager to strategist. This journey will sometimes be painful for an ostrich manager who prefers safety and security because most personal development and growth are painful as the old self dies and the new self is born. However, becoming a strategist offers the only potential for more long term safety, security, and satisfaction.

CONCLUSION

Ostrich managers tend to "bury their heads in the sand" by ignoring or avoiding information and situations that they perceive as threatening or discomforting. When they act like ostrich managers and ignore or avoid information that is essential to the strategic management, people have a severe, negative impact on their organizations, themselves, and society. Strategists, on the other hand, eagerly seek all information whether it is good or bad so that it can be integrated and acted upon as they invent the future and set the standards for excellence in their industry. The authors are developing an Ostrich Management Quick Test which can be used to determine the extent to which a person is an ostrich manager or a strategist. Ostrich managers can then learn how (and choose) to be strategists.

REFERENCES

Hitt, M.A., Ireland, R.D., and Hoskison, R.E. (2008). *Strategic Management: Competitiveness and Globalization.* 8th ed.

Kipp, Mike. (2004). "Why head-in-the-sand leadership sinks ships," *Journal of Business Strategy***,** Vol. 25, Issue 5, pages 63-64.

Kotter, J. (1990, May-June). What leaders really do. *Harvard Business Review*. 56, 103-111.

Martin, R. (June, 2007). How successful leaders think. *Harvard Business Review*, 60-67.

Pryor, M.G., Anderson, D., Toombs, L.A. and Humphreys, J. (2007, April). Strategic implementation as a core competency: The 5P's Model. *Journal of Management Research*, Vol. 7, No. 1, pages 3-17.

Pryor, M.G., White, J.C., and Toombs, L.A. (2007, 1998). *Strategic Quality Management: A Strategic, Systems Approach to Continuous Improvement*. Centage/Thomson Learning.

BRANDING MBA PROGRAMS: ARE THEY SUFFICIENTLY RELATED TO AN INSTITUTION'S STRATEGY?

Suresh Gopalan, Winston-Salem State University
Notis Pagiavlas, Winston-Salem State University
Thomas Jones, Winston-Salem State University
gopalans@wssu.edu

ABSTRACT

The dynamics of globalization have impacted universities and institutions that offer a graduate business degree (MBA). In the face of increasing international competition that offers more choices for consumers, administrators in higher education have increasingly adopted a branding strategy for their MBA program as a means of differentiating their product from competing programs. Branding MBA programs is expensive, challenging and controversial. A review of current studies that have examined MBA branding does not reveal a clear connection between branding efforts and organizational long term strategy. In this paper, we identify key elements of a firm's strategy and pose a series of critical questions that administrators managing MBA programs must ask and answer in order to have an effective branding outcome over the long term.

INTRODUCTION

Branding is defined by the American Marketing Association as "a name, term, sign, symbol, or design, or a combination of them, intended to identify the goods or services of one seller or group of sellers and to differentiate them from those of competitors" (AMA, 1996). Branding strategy has generated significant streams of research. It is recognized one of the most effective means of building value for a product or service that can result in a sustained competitive advantage.

Branding benefits include simplification of product handling or tracing, management of inventories, and intellectual property rights reflected in legal protection for unique aspects of the product including registered trademarks, patented manufacturing processes, packaging and design (de Chernatony and McWilliam, 1989). A strong and positive brand creates improved perceptions of product performance, greater loyalty, less vulnerability to marketing crises, larger profit margins, more inelastic consumer response to price increases, greater trade cooperation and support, increased marketing communication effectiveness, licensing opportunities, and additional brand extensions (Keller, 1988).

Having a recognizable and strong brand becomes even more critical for higher education institutions, given their intangibility and difficulty in assessing their perceived value without any means to examine the offering prior to engaging in consumption (Jevons, 1996). According to Pitt et al., (2006, p. 2) "A business school's brand fulfills the classic function that brands do for all offerings to which they are attached." A well known brand name enables a B-School to focus its promotional efforts, create and sustain loyalty across generations, charge a premium price, and differentiate offerings from competing schools. Additionally, branding can favorably impact the ranking of a MBA program in various publications. From a customer's perspective there is tremendous reduction in the perception of risk of purchasing a high-cost high-involvement product which is typically consumed once in a life time, lowered search time and anxiety, bestowment of prestige, and a favorable preference for the offering (Pitt and Berthton, 2004; Pitt, Berthon, Spyropoulou, and Page, 2006). With increased international competition, branding has the potential of becoming the most efficient means of describing the value of the offering (MBA degree) and its implied promise to current and potential consumers (students) and their employers.

Despite the advantages stated earlier, pursuing a branding strategy for MBA programs has faced criticism and controversies. In an era of shrinking budgets and tightening costs, there is potential backlash of diverting scarce financial resources into branding programs as opposed to enhancing teaching and research activities. Traditionalists might question the entire exercise of branding as a frivolous exercise as one that is not central to the core mission of an institution (Lewis, 2003). Tensions may erupt between multiple stakeholders who may wish to emphasize differing and sometimes mutually incompatible traits associated with a brand (Roper and Davies, 2007). Alumni may wish to retain certain brand attributes that may not valued by future students who may favor other attributes. Branding MBA programs is a relatively new phenomenon. As research suggests, building a successful brand name takes many years. Consequently, short-term results cannot be guaranteed.

MBA BRANDING STRATEGIES: A REVIEW OF RECENT STUDIES

Roper and Davies (2007) measured perceptions of a UK based B-School's brand by administering a scale that measured 7 dimensions of brand personality (Agreeableness, Enterprise, Competence, Chic, Ruthlessness, Informality, and Machismo). The study included students, mid-level employees, employers, and upper management. Significant perception gaps were observed across various stakeholders and by age, sex, and employer size. The authors conclude by suggesting that the viewpoints of all stakeholders must be identified and recognized in branding efforts. A somewhat controversial idea is presented that branding attributes/themes should be differentiated for various stakeholders.

Gopalan, Stitts, and Herring (2006) assessed branding strategies of the top 50 global MBA programs ranked by *Financial Times*. They performed a content analysis of the brand name, logo, and text information obtained from the web pages of these MBA programs. Their analysis revealed that U.S. based MBA branding approaches had limited applicability in Europe and Asia. Additionally, there were several key differences between branding approaches of European and Asian MBA program vis-à-vis U.S. MBA programs. The former entities include the following elements in their branding efforts: accreditation from multiple agencies in addition to AACSB, multicultural and multilingual experiences, regional name recognition, emphasizing location (both city and country), and global diversity of student body.

Opoku, Abratt, and Pitt (2006) conducted an exploratory study of the brand personalities of 11 South African B-Schools by performing a content analysis of the information contained in their respective websites. Opoku et al. measured brand personality of MBA programs by using Aaker's 5 dimensional scale (sincerity, excitement, competence, sophistication, and ruggedness). They concluded that many brand dimensions used in the description of South African MBA programs were frequently used for consumer products. The website is identified as a powerful marketing tool to convey the B-School's brand personality to achieve positioning objectives with both domestic and international students.

Pitt and Berthon (2004) administered Aaker's scale to 130 MBA students who were attending a B-School that was ranked between # 20- #30 by the *Financial Times*. Respondents were asked to provide feedback on their perceptions of brand dimensions of 3 MBA programs: their own MBA program, the one that was ranked #1 and the one that was ranked #100. Of the five dimensions in Aaker's scale, *Competence* was perceived by students as the most important dimension of a business school's brand. It appears that brand personality is a driving factor in B-School selection. B-School brand managers are exhorted to conduct a brand audit to identify areas of strengths and weaknesses as perceived by various stakeholders.

Pitt, Berthon, Spyropoulo, and Page (2006) asked 61 MBA directors and senior administrators including deans to rate their own B-School brand using Keller's *Brand Report Card* methodology (10 brand attributes). These brand attributes covered both internal and external characteristics. The overall conclusion was that the majority of B-School administrators do not perceive their organizations as doing an effective job in managing their school brand. While B-Schools teach brand management, they are doing a poor job of practicing brand management. A brand audit is proposed as one way to identify areas of concern and to track changes in stakeholder preferences over time.

PROPOSED APPROACH: LINKING BRANDING TO ORGANIZATIONAL STRATEGY

If branding is a tool to execute strategy, there is very little mention of the organizational mission/strategy in the studies covered in the previous section. This leaves a gap that needs to be addressed. Our proposed approach seeks to bridge this gap. The first step is to conduct a stakeholder analysis to review the *key strategy elements* that are direct outgrowths of a mission statement which have important ramifications for branding efforts. Collis and Rukstand (2008) identify *Defining the Scope* (Domain of operation) and *Defining the Advantage* (distinctive competencies valued by the customers that are offered by the firm) as two key strategic elements that must be identified. These two elements can be identified by the following 3 questions:

1. Who are our customers? Where are they located (geographic locations)?
2. What do our customers want? (What needs are important to them?)
3. What should we offer to meet their needs?

The stakeholder analysis must obtain answers to the three questions identified earlier. At a minimum, we suggest that alumni, current students, potential students, employers, faculty/staff, and upper administration be included in this exercise. Prior research has identified that stakeholders bring a diverse set of ideas and information to the table. It is important to obtain a 360 degree perspective to these important questions. By conducting a stakeholder analysis and obtaining their input, it is easier to obtain "buy in" with any proposed changes to the existing brand name and associated attributes or to suggest a new branding strategy when there is none.

A comprehensive brand audit should be conducted so that similarities/differences between *current* versus *preferred or desired brand attributes* can be studied by gender, age, and other demographic variables. A brand audit may reveal conflicting perspectives on important attributes to be emphasized in the branding (or re-branding) process.

On one end of the spectrum, if a stakeholder analysis reveals that the answer to the first two questions (Who are our customers? What is their geographical location?) focused on having an international student body, it makes ample sense to pursue a *global brand name strategy* to position the B-School. In this context, a brand manager may wish to consider the following attributes to bolster global branding: multiple accreditations, location by continent/country/city, student body diversity, and foreign language competency. Currently, Australia, the UK, and Singapore have increasingly integrated studying in their respective countries as an intrinsic part of the branding process for their respective MBA programs.

On the opposite end of the spectrum, if the stakeholder analysis reveals that the primary emphasis should be on recruiting students drawn from a local region, it would make sense to pursue a *regional brand name strategy*. The region may be limited to a city or may encompass several states. In this context a brand manager may choose easy identifiable attributes of the city/region to be a part of the brand. These attributes may include sporting events, mascots of athletic teams, area heroes/heroines, cultural attributes that are locally famous to be part of their branding initiative.

Brand attributes sought by various stakeholders can be different (see question #3). In this context, brand managers face an interesting question. Should they choose to include those brand attributes and characteristics that appeal to one set of customers? Or should they emphasize different brand attributes to different consumers? In the Roper and Davies (2007) study of UK MBA students, female students rated lack of ruthlessness and presence of competence as more important to a MBA brand than male students. Should branding of MBA programs be different for women than men? A prospective student seeking to live and work in a 100 mile radius from home will be more attracted to a regional brand that carries a lot of local name recognition ("home of the Golden Eagles") as opposed to attending a program that offers the "London experience." Conversely, an international student will be less attracted to a brand that emphasizes "experience a southern flavor like home" as opposed to being in a MBA program that has a diverse student body.

Consider another scenario. A stakeholder assessment may reveal the need to attach importance to "globalization" as part of the long-term strategy. A B-School with limited resources may choose to pursue a *co-branding strategy* whereby they can partner with a reputed B-School from another country. A co-branding strategy jointly promotes the virtues of two MBA program enhancing global appeal without stretching scarce resources (Montgomery, 2005).

These steps are summarized below:
Step 1- Stakeholder Analysis and Identification of Strategic elements (3 questions)
Steps 2 and 3-Brand audit and determination of Primary market(s) to decide upon the type of branding (Global, National, Regional)
Step 4-Determine ideal combination of branding dimensions/attributes to be used in branding

Step 5-Execute and follow-up with impact on Strategic elements

CONCLUSION AND SUGGESTIONS FOR FUTURE RESEARCH

Higher education is becoming a global business and B-Schools are facing the reality of a worldwide competition (Lewis, 2003). B-Schools are increasingly turning to branding as way to create an identity and to have a sustained competitive advantage (Montgomery, 2005). Earlier branding approaches did not establish a clear connection with the organizational strategy. We propose that this be done as the first step in the brand management process. By conducting a stakeholder analysis to determine their *domain* and *advantage*, B-Schools can decide if they wish to pursue a global brand name strategy, national brand name strategy, or regional brand name strategy. A brand audit will decide the type of brand dimensions/attributes that will be used in the promotional strategies to consumers. Changes in organizational missions may cause B-Schools to seek new customers while simultaneously holding on to present consumers. As an example, many state sponsored institutions in the US and UK that were created to address regional educational needs are now seeking a global presence as part of their long term organizational strategy. In their branding approach, should they focus on emphasizing different brand personalities to their traditional base while addressing other brand dimensions to international students? Much of the brand personality research and resulting list of attributes has been derived from studies of U.S. and UK based consumers. To what extent do they address desired attributes of Asian and European consumers? Additional research is needed to answer these questions.

REFERENCES

Collis, D. J., and Rukstad, M. G. (2008-April). Can you say what your strategy is? Harvard Business Review, 82-90.

de Chernatony, L., & G. McWilliam (1989). The varying nature of brands as assets. *International Journal of Advertising*, 8(4), 339-349.

Gopalan, S., Stitts, K., and Herring, R. (2006). An Exploratory Investigation of the Branding Strategies of the top 50 Global MBA programs. *Journal of International Business Research*, (5)2, 49-61.

Jevons, C. (2006). Universities: A prime example of branding gone wrong. Journal of Product and Brand Management, 15(7), 466-467.

Keller, K.L. (1998). *Building, measuring, and managing brand equity*. Upper Saddle River, NJ: Prentice Hall.

Lewis, E. (2003). It's a University Challenge. *Brand Strategy*, 20-22.

Montgomery, D. B. (2005). Asian Management Education: Some Twenty-First Century Issues. *Journal of Public Policy & Marketing*, 24(1), 150-164.

Opoku, R., Abratt, R., and Pitt, L. (2006). Communicating brand personality: Are the websites doing the talking for the top South African Business Schools? *Brand Management*, 14(1-2), 20-39.

Pitt, L. F., and Berthon, P. (2004-Autumn). Branding the MBA Product. It's a LOT more difficult than what we teach. *Forum*, 29-33.

Pitt, L. F., Berthon, P., Spyropoulau, S., and Page. M. J. (2006). How well are business schools managing their brands? A research note. *Journal of General Management*, 31(3), 1-10.

Roper, S., and Davies, G. (2007). The Corporate Brand: Dealing with Multiple Stakeholders. Journal of Marketing Management, 23(1-2), 75-90.

TRANSFORMATIONAL STRATEGY IN THE CITY OF GOLD: PURSUIT OF THE VISION

James Reagan McLaurin, American University of Sharjah
jmclaurin@aus.edu
Peter Mitias, American University of Sharjah
pmitias@aus.edu

ABSTRACT

This paper is a continuation of a work that aims to examine the leadership of Dubai, one of the fasting growing cities in the Middle East and the world (Mclaurin 2008, McLaurin and Mitias 2008). The current leader of Dubai, Sheik Mohammad Bin Rashid Al Mahktoum, is viewed as the transformational leader of the Emirate of Dubai. His vision is widely acclaimed at having been the inspiration for the amazing transformation of Dubai from the small trading city into the modern, 21st century center of commerce and trade. The implementation of his vision has resulted in Western best business practices being adopted by many of the Dubai Government entities. A key question that arises for many leaders outside the region is how his vision translates to the various organizational levels in the various entities in the Dubai Government. Are the leaders within these organizations actively involved in the transformation of their organizations into those future organizations that represent the high performance ones required to run the modern Dubai?

This study examines the transformational strategy perceptions of Dubai Municipality as evidenced by the transformational strategy survey results of the Leadership Group which consists of over 200 mid and upper level-managers within the organization. The results of this survey offer a unique look at the relationship between transformational strategy and leadership in this Arabian city of gold by providing a closer look at the realities within Dubai Municipality, as it is one of the leading institutions within the Emirate of Dubai and the UAE. The participants were also engaged in the creation of the organization's five year strategic plan. This survey, along with others, was essential in the creation of relevant goals and objectives for the strategic plan.

INTRODUCTION

As organizations face the bold new challenges of the globally integrated marketplace of the 21st century, they are faced with moving from where they exist presently into a future desired state. In order to achieve this change, they must adopt transformational strategies in order to achieve these goals. For many organizations this desired future state is being articulated, sought after, and accomplished through the transformational leader. Transformational leaders are characterized as influential, inspirational, and charismatic (Bono & Judge, 2004). The change in organizations to the desired future state when accomplished through transformational leadership is considered enduring, especially when the change process is well designed and implemented. This is accentuated through the inspired followers that go beyond their own self-interest for the good of the organization (Bass, et al, 2003). Studies have revealed that transformational leadership shows the highest overall relations to achievement of organizational objectives (Judge & Piccolo, 2004). Organizations that have transformational leaders see that managers adopt and emulate transformational behaviors (Shivers-Blackwell, 2004) (Judge & Piccolo, 2004).

In order to enjoy consistent growth and development in the new marketplace of the 21st century, organizations must develop distinctive competitive advantages. Knowledge management is one of those advantages. Knowledge management in its most simple definition is the creation, sharing and exploiting of organizational knowledge. This can become a key sustainable competitive advantage for any organization. Transformational leadership can be effective in the creation and sharing of knowledge at the individual and group levels in the organization (Shivers-Blackwell, 2004).

Transformational leaders are often brought into organizations that are facing issues and challenges and their primary objective is to bring about the required change necessary to meet the organizations long term goals. In many instances, the transformational leader has to challenge the status quo in the organization and make a convincing case for change. The leader must also inspire a shared vision for the future, provide effective leadership during the change, and make the proposed change a permanent and institutionalized part of the organization (Hines & Hines, 2002).

The key issues that often determine an organizations successful transformation process center on the support of the manager followers. Do these managers understand the need for the proposed change and are they committed to the achievement of the transformational strategy,? Also, will these managers serve as leaders in the transformational process and can they implant the change? This study examines the answer to some of these questions and provides an assessment of the transformational strategy capabilities of the leadership in Dubai Municipality.

METHODOLOGY

As the leading employer and largest government entity in Dubai, the Dubai Municipality recently embarked in the development of a five year strategic plan for the organization. The desire to assess the teamwork capabilities of the leadership in Dubai Municipality, and other related studies were undertaken as the primary objectives in the development of this plan (McLaurin, 2008; McLaurin & Mitias, 2008). This study has its beginnings from this undertaking.

The population examined in this study was referred to as the Leadership Group and consisted of individuals from the middle and upper-levels of management within the Municipality. The sample consists of 227 respondents from 30 various departments and centers in the organization. At the time, over 17,000 people were employed and thus was the single largest employer in Dubai. The executive level consisted of the Director General, two Associate Director Generals, and ten Assistant Director Generals. These individuals were not part of the study sample.

The transformational strategy survey consisted of fifteen areas of interest with respect to transformational strategy. The instrument allows respondents to rate the fifteen statements regarding transformational strategy on a scale of 1 to 5; where a score of 1 means that they strongly disagree with the statement, while a score of 5 means that they strongly agree with the statement. The neutral position is represented by a score of 3. The surveys were answered as part of a three day workshop on leadership for the Leadership Group.

RESULTS AND ANALYSIS

Construct validity of the instrument is checked by using a correlational comparison with earlier scores on the same instrument as administered to other governmental entities in Dubai. The scores are correlated with previous applications of the scale at the .70 level or higher (Cooper & Schindler, 2006). Reliability is determined by assessment of internal consistency to determine the degree to which the instrument items are homogenous and reflect the same underlying construct. The Cronbach's Alpha is highly significant for the scale and all items on the scale which is confirmed by the significance of the Hotelling's T-Squared statistic of 194.413 (Cooper & Schindler, 2006). A factor analysis is performed utilizing a principal components analysis and a varimax rotation. The purpose is to determine whether underlying factors (grouping of variables) exist, and if so, would it help in the interpretation of our results. The Bartlett Test of Sphericity, a statistical test for the presence of correlations among the variables, indicates significance and the Measure of Sampling adequacy is .921 which indicates the degree of intercorrelations among the variables and the appropriateness of the factor analysis (Hair et al, 1995).The results from the principal components analysis and the subsequent orthogonal varimax rotaions results in two factors emerging that are closely aligned with the original construct of transformational strategy. The rotated model extracted two factors with double loadings on two of the variables. Interpretation of these two rotated factors indicates that the first factor focuses upon the commitment and development of the transformational strategy by the members of the organization. The second factor deals with the incorporation in the organization and communication of the transformational strategy. However, the principal components method provides two factors but with only one factor having components above 0.500. This would be in line with how the instrument was originally designed; as a single instrument measure of transformational strategy in the organization.

The mean scores for the 15 items examined range from a low of 2.59 for strategy-human resource management (HR) link to a high of 3.46 for functional manager/supervisor partnership. Additionally, over half the items score around the 3 or below. For all 15 items, the combined average score is 3.1000, which when taken in conjunction with the low average scores for all the items in general, the message is clear that Dubai Municipality needs to pay serious attention to its organizational transformational strategy.The characteristics of interest that are strongest are 2, 4, 6, and 7. The results show there is an understanding of stakeholder needs and knowledge of the customer. The mean response for Stakeholders need is 3.43 with 124 out of 225 (50.7%) respondents giving the Municipality a score of 3 or less, indicating that a little over half the members feel that stakeholder needs do not play a role in strategy formulation. The mean of 3.33 for Customer Knowledge can also be misleading in that 122 out of 225 (54.2%) respondents give the Municipality a core of 3 or less which means that over half the organization's directors, managers and supervisors do not seem to know to which groups the customers belong. A little over half of the respondents indicate that functional managers and supervisors consider themselves as partners in the overall organizational transformational strategy formulation process. The mean score was 3.46 with 113 out of 224 (50.4%) respondents giving the Municipality a score of 4 or 5. The mean score for Functional Strategy and overall strategy link is 3.41 with 112 out of 224 (50%) respondents giving the Municipality a score of 3 or less. It appears that the organization seems to do better in this regard as compared to other survey responses. Regardless of this, the perceived linkage is much weaker than what high-performance organizations show. Results indicate that half the respondents believe that the organization usually/always formulate functional strategies that are in line with the overall organizational transformational strategy.

When it comes to communication, open discussion, and involvement, the data are less impressive. The response to the statement regarding the Executive Directors role indicates the Municipality is not doing well with only a mean score of 3.1. Of note is that 144 out of 224 (64.3%) respondents gave a score of 3 or less, indicating that almost two-thirds of team members perceive minimal or no involvement of Executive–level management in setting organizational objectives and performance plans. The Municipality gets a mean score of 3.01 for its response to Attention to Strategy with 149 out of 224 (66.5%) respondents giving it a score of 3 or less. In other words, two-thirds of its members feel that the organizational transformational strategy and functional strategies are not given importance during routine meetings of divisions and working teams. This is consistent with the response regarding Open Discussion. The mean is 3.05 and 149 out of 225 (66.2%) respondents give a score of 3 or less. It appears the Municipality could be doing more in this area. Almost two-thirds of the respondents seem to think that functional managers do not publicize objectives or try to link the activities of the sections with them. However, this is not limited to just functional managers as the mean score for item 11 is only 3.01 and 156 out of 220 (70.9%) respondents giving it a score of 3 or less. In other words, over seventy percent of the members feel that the Executive-level Management Team does not communicate future plans with subordinates.

What is also of interest is that the results indicate that almost two-thirds of the respondents feel that the organizational transformational strategy is not the basis for managing and raising performance levels of middle managers. The mean response is only 3.04 with 148 out of 225 (65.8%) respondents giving it a score of 3 or less. This should not be terribly surprising given that almost seventy five percent of the members feel that staff are not involved in divisional/sectional strategy deliberations and over half the respondents indicate that objective analysis does not play a role in strategy formulation. The mean responses to statement 5 and 12 clearly show the organization does not seem to do well in terms of objectively forming functional strategies.

The results also indicate that the organization does not link the overall strategy very well as evidenced by the responses to the last three statements. Seventy percent of team members feel that the organizational transformational strategy is not a criterion in setting operations priorities and nearly seventy percent of the respondents feel that the organizational transformational strategy is not the basis for setting performance plans, policies and standards of functions and teams. The weakest aspect is in regards to linking the strategy with the Human Resources division. The Municipality does a poor job in this regard with a mean of 2.59 and 175 out of 222 (78.8%) respondents giving it a score of 3 or less. Almost eighty percent of the members feel that Human Resources does not use the organizational transformational strategy as the main criterion in setting employment plans, placement of staff, and determining training needs. These results are all consistent with regards to the response to the first statement about the Commitment to Organization Transformation Strategy. Dubai Municipality seems to be weak in this regard with a mean score of 3.14 and 146 out of 226 (63.3%) respondents giving it a score of 3 or less. A majority of respondents feel that members are not committed to the organization transformation strategy.

CONCLUSION

The transformational strategy survey reflects minimal commitment on the part of the Dubai Municipality to an organizational transformational strategy. The organizational transformational strategy does not play a major role in how the Leadership Group conducts the daily business of the organization. Furthermore, they do not perceive much support from the executive level management team for the organizational transformational strategy. Overall, the organization could do a much better job in strategy formulation and implementation.

The areas that Dubai Municipality is seen as doing relatively better strategy-wise are in the analysis of stakeholder needs (mean 3.46), functional strategy-overall strategy link (mean 3.41), functional manager/supervisor partnership (mean 3.46), and knowledge of customer (mean 3.33). Given the low means in these items (none above 3.5), there is reason to believe major improvement needs to be targeted in the strategy-making and implementation process. People at all levels must acquire a shared vision for the transformational strategy to even minimally be pursued. Presently, there is no perceived involvement nor does there appear that this will emerge.

Also, Dubai Municipality needs to pay attention to strategy formulation and implementation. Other areas that need special attention are in the Executive-level Management Team commitment and involvement, participation of middle managers and staff in strategy formation, detailed attention to overall organizational transformational-functional strategy links, and implications of the former on business activities, operations, and team and individual performance. Communication of strategies and plans, analysis of stakeholder needs, objectivity in strategy formulation, and organizational transformational strategy-Human Resource links are in need of further attention.

In summary the leadership of the Dubai Municipality appears to accept the status quo and does not see a convincing need to change. It appears that there is no inspired, shared vision for the future. The vision of Dubai's transformational leader, Sheik Mohammad Bin Rashid Al Mahktoum is not evident. It may appear that people are participating in a perceived "process" because they are expected to, with no real expectation of change. Part of this could stem from the underlying social norms and traditions of the region. From a cultural standpoint there exists a power distance between leaders and followers, and also one in which there is a tendency to avoid uncertainty, even though historically people of the Gulf are entrepreneurial in nature. Also there is a formality between members of different status and age within and across tribal origins that are reflected in this new modern organizational structure. These cultural characteristics pose different challenges for the successful transformation of organizations in this region.

THE ADVENT OF THE INTERNET AND THE ON-LINE BOOK TRADE: THE ROLE OF MANAGERIAL COGNITION AND THE LIABILITIES OF EXPERIENCE

Marc Weinstein, Barry University
Stephen Standifird, University of San Diego
mweinstein@mail.barry.edu

ABSTRACT

Few technological innovations have created as much popular furor as the commercialization of the Internet. Does the Internet constitute a radical technological discontinuity? If so, will firms with more industry experience be able to act upon changes in the economic environment resulting from the advent of the Internet? This paper addresses these issues by extending and testing theoretical work in managerial cognition to the study of the relationship between length of industry experience and organizational decision-making during periods of technological discontinuity. Specifically, we explore how the mental models of managers contributed to an industry-wide dominant logic guiding the behavior of experienced proprietors in the used and out-of-print book trade. This research finds that the logic that served the proprietors of these small firms so well during periods of stability may prevent them from recognizing, evaluating, and responding to fundamental changes in the competitive environment.

Theory

During periods of technological discontinuity decision-making premised on a dominant logic can lead to two types of errors. First, basic shifts in the competitive environment can result in managers discarding important data as irrelevant. Second, even when new data are considered, the dominant logic can lead to a misinterpretation of the meaning of this new information. Firms make sense of information collected through a self-referring process where prior behavior is used as a framework for understanding new information (Lampel and Shamsie, 2000; Cote, Langley and Pasquero, 1999; von Krogh and Roos, 1996). Insofar as previous behavior feedback loops lose their predictive power during periods of discontinuity, the continued reliance on traditional modes of sensemaking can lead to basic errors in interpretation of new data.

Managers sharing a dominant logic are likely to come to very similar conclusions when attempting to interpret a common set of data (von Krogh and Slocum, 1994). Each manager selects and makes sense of the available data within the framework of a knowledge structure and its industry specific content. Managers influenced by the dominant logic adopt a “one right way of doing things” mentality (Lyles and Schwenk, 1992). Thus, the existence of a dominant logic may inhibit the ability of the firm to respond to significant changes in its environment (von Krogh and Roos, 1996).

While the dominant logic has been primarily used to characterize behavioral patterns of individual firms, a dominant logic can be common across firms within a particular industry as well. Managers of firms within similar competitive niches share knowledge structures that shape a shared understanding of competitive boundaries and conditions (Lant and Baum, 1994) even when environmental conditions change (Fombrun and Zajac, 1987). The contents of knowledge constructs have their origins in both the industries and firms in which the managers operate (Levinthal and March, 1993). Entrenched routines and practices are reinforced by the firm's past success in a particular industry setting (Levitt and March, 1988). This leads to the construction of content that provides managers within a given industry a common interpretative scheme.

In the case of the book industry, the dominant logic governing the buying and selling of books has remained remarkably stable for most of the twentieth century (Everitt, 1952; Epstein, 2002; Weinstein, 1999). Sellers of out-of-print and antiquarian books gained knowledge about book valuation slowly over a long period of time. This enabled experienced sellers to buy undervalued sleepers from their competitors. The mistake of underpricing books made by less experienced and less knowledgeable sellers provided the experienced sellers the valuable opportunity of buying under-priced books and re-selling them to established customers at the "true" market value. Moreover, the market had shown experienced sellers that out-of-print books gained value over time, providing them an incentive to hold on to books until the right buyer happened to come into their establishment. Thus, there existed within the retail book trade a dominant logic that was pervasive throughout the industry as a result of shared industry experience.

The Disruptive Impact of the Internet in the Retail Book Industry

To assess whether the Internet has changed the competitive environment of the retail book trade, we conducted extensive field research between August 1998 and October 2000 including formal interviews with 21 on-line booksellers, correspondence via e-mail with over 100 on-line booksellers, and informal discussions with another 27 on-line booksellers. In considering the impact of the Internet on the retail book trade, we use Afuah and Tucci's (2000) criteria for determining the disruptive impact of the Internet on a particular industry: 1) the extent to which the Internet creates new value for customers; 2) the extent to which the Internet disrupts the industry's value chain; and 3) the extent to which the Internet destroys the primary basis for success.

HYPOTHESES

H_{1a}: Years of industry experience will be negatively correlated to use the Internet to check book prices prior to listing them on line.

H_{1b}: The use of the Internet to check book prices prior to listing them on line will be positively correlated to relative sales.

H_{2a}: Years of industry experiences will be negatively correlated to the practice of pricing books below prevailing prices.

H_{2b}: Pricing books below prevailing prices will be positively related to relative sales.

H_3: Booksellers' tenure in the industry will be negatively related to relative sales.

METHODS

A unique data set was compiled in collaboration with abebooks.com to examine the business practices and sales of on-line booksellers. In July 2000, abebooks.com sent an e-mail notification to their 6,300 vendors explaining the goals of the research project and inviting them to visit our research website. This site provided background on the study and a link to an on-line survey. We then matched the data collected through our research website with data on the inventory and sales of individual vendors housed at abebooks.com.

Sample

Over a seven-week period we received responses from 1,926 on-line booksellers (30.6 percent response rate). Of these we had valid user identifiers for 1,488 firms, which allowed us to match the vendor-provided data to data archived at abebooks.com. Vendors from outside of North America constituted 10.3 percent of respondents.

Model Specification

To estimate the probability that an Internet book seller will use the Internet as a resource to check prices, we use a linear probability model for an ordered categorical dependent variable (Table 1):

$$Y = \alpha_1 + \alpha_2 + \alpha_3 + \alpha_4 + \beta_1(\text{Years of Experience}) + \beta_{2[a,b,c,d]}(\text{Type of Business}) + \varepsilon$$

To estimate the probability that an Internet book seller will set book prices below the prevailing market rate, we use a logistic regressions model for a dependent variable (Table 2):

$$Y = \alpha_1 + \beta_1(\text{Years of Experience}) + \beta_{2[a,b,c]}(\text{Type of Business}) + \varepsilon$$

To estimate the relationship between sales and business practices and experience we use an ordinary least squares regression model (Table3):

$$Y = \alpha_1 + \beta_1(\text{Years of Experience}) + \beta_2(\text{Years of Experience})^2 + \beta_3(\text{Check Prices}) + \beta_4(\text{Cut Prices}) + \beta_{5[a,b,c,]}(\text{Type of Business}) + \beta_{6[a,b,c,d]}(\text{Use of Particular Sales Outlet}) + \varepsilon$$

Results

The empirical results from this analysis provide support for the theoretical propositions concerning managerial cognition and decision-making during periods of discontinuous change in the competitive environment of firms. Whereas knowledge constructs and the dominant logic of firms contribute to efficiency in decision-making during periods of stability, the same rules and logic may lead both to filtering out important data and/or the misinterpretation of data during periods of rapid change. In our study, experienced vendors who have been schooled in the stable and fragmented market that characterized the used and out-of-print book industry prior to the advent of the Internet have been slow to appreciate the relevance of market data available through the Internet. Moreover, even when experienced vendors scrutinized data from the Internet, they were prone to interpret the information according to the rules that governed the pre-Internet marketplace. The dominant logic of the used and out-of-print book industry led experienced vendors to behave as if new data from the environment was either irrelevant or erroneous.

TABLE 1 **Ordinal Regression Analysis**	Model 1 Check Prices
Constant - Threshold 1	-5.317 (.383) [1]
Constant - Threshold 2	-3.628*** (.270)
Constant - Threshold 3	-2.089*** (.237)
Constant - Threshold 4	-.402~ (.223)
Experience	-.0668*** (.009)
General Bookstore	-.150 (.213)
Specialty Bookstore	-.858*** (.240)
N	758
Log Likelihood	651.79
Model Chi-square	79.891***
Cox & Snell Pseudo R-square	.100

[1]Standard errors in parentheses
* p <.05 ** p <.01, ***p <.001

TABLE 2 Logistic Regression Analysis	Model 2 Cut Price
Constant	-.073 (.340)[1]
Experience	-.024* (.006)
General Bookstore	-.223 (.240)
Specialty Bookstore	.491~ (.279)
N	751
Log Likelihood	998.59
Model Chi-square	23.292***

TABLE 3 Regression Analysis of Relative Sales	Model 3 Relative Sales
Constant	.0793*** (7.561)
Experience	-.376*** (-3.516)
Experience-Squared	.243* (2.385)
Check Prices	.106** (2.753)
Cut Price	.116** (3.109)
Speciality Store	.176** (3.106)
General Store	.117*

	(2.096)
Alt Sales 1	-.048 (-1.288)
Alt Sales 2	.008 (.205)
Alt Sales 3	-.164*** (-4.297)
Alt Sales 4	-.051 (-1.357)
Days with abebooks	-.090* (-2.270)
F-Statistic Model	11.260***
Adj. R-square	.148
N	648

Standardized coefficients, T-statistics in parentheses
~ p <.10, * p <.05 **, p <.01, *** p < .001

REFERENCES

Cote, L., Langley, A. and Pasquero, J. (1999). 'Acquisition strategy and dominant logic in an engineering firm'. *Journal of Management Studies,* **36**: 919-952.

Epstein, J. (2001). *Book Business: Publishing, Past, Present, and Future.* New York NY: Norton.

Everitt, C. (1952). *The Adventures of a Treasure Hunter.* Boston, MA: Little, Brown, & Co.

Fombrun, C. J. and Zajac, E. J. (1987). 'Structural and perceptual influences on intraindustry stratification'. *Academy of Management Journal,* **30**: 33-50.

Lampel, J. and Shamsie, J. (2000). 'Probing the unobtrusive link: Dominant logic and the design of joint ventures at General Electric'. *Strategic Management Journal,* **21**: 593-602.

Lant, T. K. and Baum. J. A. C. (1994). 'Cognitive sources of socially constructed competitive groups: Examples from the Manhattan hotel industry'. In W. R. Scott and S. Christensen (eds.), *The Institutional Construction of Organizations: International and Longitudinal Studies:* 15-38. Thousand Oaks, CA: Sage.

Levinthal, D.A., and March, J. G. (1993). 'The myopia of learning', *Strategic Management Journal,* **14** (Special Issue) 95-112.

Lyles, M. A. and Schwenk, C. R. (1992). 'Top management, strategy and organizational knowledge structures'. *Journal of Management Studies,* **29**: 155-174.

von Krogh, G. and Roos, J. (1996). 'A tale of the unfinished'. *Strategic Management Journal,* **17**: 729-737.

von Krogh, G. and Slocum, K. (1994). 'An essay on corporate epistemology'. *Strategic Management Journal,* **15** (Summer Special Issue): 53-71.

Weinstein, M. (1999). 'Railbirds, scouts, and Independent booksellers: Towards a constructivist interpretation of new business creation', *Irish Marekting Review,* **12**(5): 1-13.