Motivations-Attributes-Skills-Knowledge (MASK) Model as Framework for Leadership Assessment Balanced Scorecards: An Empirical Study

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MOTIVATIONS-ATTRIBUTES-SKILLS-KNOWLEDGE MODEL
AS FRAMEWORK FOR LEADERSHIP ASSESSMENT BALANCED
SCORECARDS: AN EMPIRICAL STUDY

By

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Abstract

Over the course of history many leaders have made their mark on society. These leaders have led uprisings, movements, and organizations that have left legacy’s in today’s society. Leaders such as Martin Luther King, Adolph Hitler, and Jack Welch have displayed behaviors and leadership competencies which motivated their followers. These leaders demonstrated that leadership success can be achieved by enabling key leaders around them in an attributive environment. In today’s business environment, executives are seeking ways to identify new leaders which are well rounded in terms of their motivations, attributes, skills, knowledge and abilities to manage people. Companies invest in skill development of existing managers and often in potential managers. The price tag for these efforts runs into the billions of dollars every year. Businesses often find that there is not a way to measure a potential leader’s motivations, attributes, skills and knowledge which would assess prospective up and coming leaders. Businesses are looking for solutions that will help them baseline, assess, measure and track leadership behaviors. Each leader’s behaviors and competencies can be captured using the Motivations, Attributes, Skills, and Knowledge (MASK) model developed by Stevens (2003). The MASK model establishes the framework for baselining leadership behaviors and competencies for assessment and measurement through a Leadership Assessment Balanced Scorecard (LABSC). The behaviors could then be used to quantify and qualify as predictors of present and future leadership performance. This type of assessment standard would provide business leaders with a significant tool to improve business performance. The purpose of this empirical study is to introduce a new assessment model.
adapted from the two existing models of the MASK and Kaplan and Norton’s (1992), Balanced Scorecard (BSC). The design of each of these models is complimentary and assist in forming a blueprint to provide businesses an assessment tool to project current and future leadership performance. When designed correctly, organizations could theoretically use the assessment to develop leaders in their organizations. Additionally, organizations can enhance existing leaders and produce stronger results in their business.
A special thanks to my family for the inspiration and resilience to endeavor with me along my chosen path. The journey’s course is sweetened by your unwavering support.
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Chapter I: Introduction

Introduction

In many organizations, it is difficult to determine which lower level employees or existing managers has the ability to lead the organization in the future. Executives and senior managers struggle when attempting to hire new managers from outside the organization and are faced with difficult hiring or promotion decisions from inside the company. Often hiring managers only know as much as a resume tells them concerning the abilities the potential new leader will bring to the organization. Knowing the motivations, attributes, skills and knowledge of the individual would help the hiring managers make informed and confident decisions about leaders they would like to bring into the organization. Developing managers from within is considerably less risky than bringing in managers from the outside. Solid performers, which demonstrate leadership potential, require assessment to ensure they are the right fit in positions of increased responsibility.

Leaders in organizations want to put individuals in a position to be successful. By understanding the individual attributes that define each employees leadership philosophy and style, the decision to differentiate between which of the managers should be promoted to lead the organization would become much easier. The main problem is that executives and other senior leaders find there are no assessment tools available that accurately demonstrate performance based on individual attributes. There are also no assessment models that leaders can turn to which helps hiring managers or senior leaders
to determine if the managers have the potential for increased leadership positions and responsibility levels. By accurately assessing the potential leader, organizations can strategically place the manager to improve operational performance. This would also help leaders meet the emerging challenges of global organizations.

**Purpose for the study**

The purpose of this study is to empirically investigate whether there is a correlation of leadership performance indicators that serve as predictors of future leader performance. In particular, emphasis on leadership performance assessment and measurement. There is a lack of research linking the relationship between leadership performance and assessment of leaders. The Motivations-Attributes-Skills-Knowledge (MASK) model developed by Steven (2003) presents a model, which provides the ideal theoretical framework for adaptability of leadership behavior indicators relative to assessment of leadership performance. Additionally, the balanced scorecard (BSC) provides the principle measurement model to capture current or potential leader’s performance. It is best applied in organizations that are strategically focused.

Moreover, this study investigates the development of a new approach to leadership assessment through the development of the Leadership Assessment Balanced Scorecard (LABSC) model, which provides motives attribute, skills, and knowledge based leadership assessment measured through a hybrid BSC model. By focusing on the MASK to provide assessment elements, the scorecard model provides behavior characteristics that other leadership measurement tools do not consider. The LABSC assesses a leader’s knowledge base and behavioral attributes. The scorecard also
measures the potential manager’s skill base and motivations. The four MASK assessment areas provide hiring managers with a more comprehensive view of a potential leader’s overall capabilities. In addition, the MASK sub-elements provide for objective assessment and analysis of a leader’s competency level where other assessment tools do not.

**Background of the study**

Research into the assessment of personal leadership motives, attributes, skills and knowledge that contributes to building a leadership assessment balanced scorecard requires concentrated exploration in the area of leadership assessment systems. In addition, to further the development of Stevens MASK model, it is important to understand the history of assessment systems and the balanced scorecard. The balanced scorecard methodology developed and introduced by Kaplan (1992), requires further expansion because it is limited in its current applications. Further, reliability of current assessment systems stops short of providing comprehensive leadership evaluation. The MASK model has several applications just as the BSC and other assessment systems. However, research is limited on these applications. By studying the breath, depth and application of each of these models, integration of these concepts will likely emerge.

This study builds on research conducted on the MASK and BSC models. It also correspondingly provides an acute analysis of trends in the leadership assessment field of study. The study provides investigation and analysis into trends in leadership assessment, which has been published and adopted since the MASK and BSC were introduced. These trends are essential to application efforts in the development of the LABSC. The areas listed above include the application of theoretical foundations of assessment models, the
MASK model and the BSC methodology. Study of these areas provide for the plausible assessment of how a leader’s performance is measurable through the BSC methodology.

**External factors affecting the study**

External factors that affect this study include demonstrating linkages between variables such as a manager’s knowledge, skills, attributes and motives. Bucker and Poutsma (2010) acknowledge that “knowledge, skills, and motivation can be perceived as learning outcomes” (p. 267). Experiences gained through these outcomes shape and sharply define how the manager or potential manager approaches the business environment. In actual operation of the business, a leader’s attributes serve as the connection, which binds knowledge, skills and motives together for the leader’s application. All four of these elements linked together provide the foundation for the leader’s performance. Measuring these foundational elements through performance assessment is pivotal in shaping current and future leaders.

Bucker and Poutsma (2010) specify that “motivation (attributes and preferences) is an internal state of mind that influences choices in terms or personal action” (p. 267). This argument further solidifies why leadership assessment is important. Leaders make choices based on personal attributes and motivation driven by localized business environments. The business environment including culture and globalization strategy affects decisions and performance. Kaplan and Norton (2007) establish that “linking leadership performance to business strategy, planning and vision communication and feedback are essential for personal scorecards” (p. 154). Kaplan’s point speaks to the
application of BSC methodology to provide the framework for leadership performance assessment.

Kaplan and Kaiser (2009) point to past research, which “provides evidence to support assessment of leadership performance as necessary due to over research in the leadership development field” (p. 102). Both the MASK model and BSC methodology has proven to provide the framework for measurement and assessment of organizational performance. The identified external factors of globalization, operational business environment and localized operations have a bearing on the outcome of variability testing. Each of the variables is a performance element, which contribute to the whole person approach of assessing potential leaders. It is through an assessment framework and process that current leaders and potential leaders are measured. They are developed as they matriculate through different experiences. All said, leaders never truly complete development therefore, assessment of their performance is necessary.

**Trends in the field of study**

Stevens (2003) points out that “attributes generally encompass nontechnical, value added aspects of competency cluster mastery” (p. 82). Stevens’s position is important because understanding a leader’s attributes are key to measuring leadership performance. Leadership assessment based on attributes, established goals and objectives are areas, which researchers are examining to determine performance. Kaplan’s and Norton’s personal BSC research and successive research studies have not directly addressed the topic of assessment of leadership performance in relation to business performance. Likewise, the MASK model is closely associated with competency clusters
but not directly related to assessment of an employee’s leadership performance. This study expanded other research studies by extending leadership performance to defined assessment methodology associated with both the MASK and BSC models.

The individual motives, attributes, skills and knowledge of managers are utilized as the framework to capture the performance elements required for assessment using the LABSC model. Each element of the MASK represents variables to a leader’s performance. These behavior and performance elements are assessable through tracking on the LABSC. By linking the elements of MASK to the LABSC, a clear picture of a manager’s performance emerges. Further, executives and senior managers are able to accurately assess succession candidates. By advancing and merging both of the models, organizations theoretically have the tool they need to project performance.

**New developments in the field of study**

Conceptually, leadership performance assessment through a balanced scorecard methodology provides a mixture of quantitative and qualitative assessment of personal attributes of the leader to business objectives and goals on the BSC. The concept of the BSC has never been extended to assessment of personal attributes, motives or knowledge. The BSC is best known for its effect on skills performance and not assessment. New developments in the field are tied to qualitatively measuring leadership performance to sustainability activities. Researchers are now studying linkages to leadership performance and sustainably strategies. For example, Lubin and Esty (2010) contend that “leaders’ compensation should incorporate sustainability objectives compensation models, reviews, and other management processes, including a requirement that all newly promoted
business unit managers review their unit’s sustainability plans with senior management within 90 days” (p. 48).

Trends such as these are important, as sustainability is an ever-increasing value proposition for businesses; however, without concerted research into assessment of leadership performance through personal motives, attributes, skills and knowledge effectiveness of higher-level business strategies are likely to be truncated. In theory, it is a combination of the MASK elements that measure the leader’s performance, not any specific, individual skills or attributes. The nature of the business is certainly a dependent factor on the MASK elements assessed through the LABSC. Equally, environmental factors are a consideration into personal assessment. These position are significant as the ever changing global business climate in emerging countries changes business strategy and objectives. The scorecard for each business is weighed based on important success elements determined by the business.

**Current Research**

Current research indicates that traditional measurement models do not account for leadership shifts due to global forces of change. As previously discussed, sustainability has become a force of change for organizations across the globe. Finding and retaining leaders who can transition companies into these forced changes is critical to public, private, non-profit and social sectors. Hagel, Brown, and Davison (2009) point out that is one reason traditional measures alone do not capture the challenges and opportunities for U.S. companies. “When senior managers decided what shape a company should take in terms of culture, values, processes, and organizational structure-now we’ll see
institutional innovations largely propelled by individuals, especially the younger workers, who put digital technologies such as social media to their most effective use” (p. 88).

Assessment of leaders’ MASK elements presents value-added performance decision points for senior leaders to balance the organization across a broad business model.

The need for organizations to have the capability to assess leadership performance at all levels is demonstrated though Kaplan and Grossman’s research into modeling for new profit from social objectives. They contend that “organizational strength and stability, core operations, partnership networks, constituents, all translate to positive social, economic, and environmental sustainable change for businesses” (Kaplan & Grossman, 2010, p. 116). These researchers core argument is that leadership assessment can bring about new profits for businesses and also help them move forward toward sustainable business practices. The premise is that this assessment is best captured through the BSC methodology. By integrating the MASK elements in the assessment process, a standardized assessment model is applied across multiple businesses.

**Statement of Problem**

The overall problem that lies beneath this research is the inability of businesses to overcome the problem of not having a formal leadership assessment model, which identifies measurable personal leadership motives, attributes, skills and knowledge. Companies typically measure managers based on strategic objectives or business goals, which does not provide an assessment of the true capabilities of leaders. Because leaders are not assessed, business performance is not capitalized on. It is unclear how many businesses truly provide leadership assessment as opposed to measuring managers’
performance. Because leadership assessment is not integrated, business performance is restricted due to a lack of understanding of leaders’ strengths and weaknesses. Zook and Allen (2011) term this as “business differentiation” (p. 109). Business differentiation is key to a business’s competitive advantage.

Differentiation of businesses’ strengths is best accomplished through assessment. Companies such as Nike and Microsoft consider themselves efficient if they are adaptive, forward moving and apt to change. Other organizations are considered efficient if they are “stable, predictive and mechanically integral, e.g. government structures, research institutions, universities, military corporation, etc.” (Zavyalova and Kucherov 2010, p. 226). Assessment of leadership performance correlates to understanding how adaptive and predictable an organization is. Differentiation is a direct assessment of a leader’s skills, knowledge, and attributes which leads to competitive advantage for business. Direct performance assessment through the LABSC methodology will accurately predict future leadership capacity for increased responsibility and business differentiation in certain business environments.

**Theoretical basis of the study**

Scholars such as Kaplan, Norton, and others have debated the value of the BSC and the use of a personal BSC. However, the BSC measures business objectives rather than MASK model elements. Assessment of leadership performance has been studied. Yet, measuring objectives utilizing the BSC methodology against the status quo of strategic objectives, strategic actions, industry contributions, and quantifiable sustainability measurements is fairly standard. By establishing the MASK as the baseline
assessment model of individual leadership behaviors, correlations could later be made to compare these assessment elements against business sustainable growth objectives. The BSC was created as a strategic approach and performance management system that could be used in many business applications to measure business performance to objectives or goals.

Theoretically, assessing leadership performance clearly falls into the original BSC underpinning Kaplan and Norton established in 1992. The concept of the BSC has traditionally measured financial, customer, internal business processes, learning and growth. Leadership measurement aligns under the original concept and theoretical framework within each of the traditional areas. In measurement of leadership capabilities and assessing overall leadership performance, “the BSC should be used to align unit and individual goals with strategy; conduct periodic performance” (Kaplan, 2007, p. 161). Integration of the MASK model elements as leadership assessment criteria solidifies the versatility of the BSC and MASK models. Moreover, assessment of a leader’s performance based on elements of the MASK model establishes a standard yet cohesive approach to leadership performance assessment.

**Research Hypothesis**

There were four research hypotheses that are connected with three research questions. The research hypotheses for this study were:

*Hypothesis 1:* MASK Model baselines for individual behaviors positively relates to leadership performance.
Hypothesis 2: Higher level business education is positively related to leadership performance.

Hypothesis 3: The personal BSC is a positive assessment devise for capturing leadership performance.

Hypothesis 4: Achievement of organizational strategy goals is positively related to assessment of leadership performance.

Research Questions

To complete the scholarly exploration that investigates the theory presented in this study there are three research questions designed to provide a solution to the specific inquiry. The research questions are:

1. Do beliefs about individual personal leadership traits affect leadership performance?

2. What is the relationship between measuring leadership performance on the BSC and improved leadership performance?

3. What is the correlation between assessment of performance on the BSC and predictions about leadership performance?

Research Design

The research design concept was a two phase process. The first phase consisted of a pretest application of the LABSC survey. The survey used a MASK model leadership assessment balanced scorecard specifically designed to measure personal leadership performance to organizational strategy objectives and goals. It was given to five different
businesses. After a two week period, the second phase was applied which consisted of a primary survey designed to ascertain information on certain MASK element variables. It was applied across the same five business settings. The primary survey assisted in determining if leadership performance correlated to success of organizational strategy. The outcomes of these two phases were analyzed for correlation through Pearson $r$ correlation analysis testing. Reliability analysis was conducted to test independent variables to determine the relationship of the variables to the dependent variable. This testing was utilized to accept or reject the null hypothesis tested for research question.

**Significance of the Study**

This study was significant because the capabilities of organizational leaders are becoming increasing important as companies are faced with social, economic, environmental, sustainment, market share, and loss of intellectual capital to emerging counties. Public, private, and non-profit sector leaders must carefully select next generation leaders and delineate performance between current leaders and managers. Businesses that are to compete in emerging global countries such as Brazil, Russia, India and China (BRIC) require leaders with strong and broad leadership capabilities. Most companies’ “global strategies have been based on a vision of a world that’s steadily, even rapidly, becoming more integrated, where the key challenge is keeping up with that integration” (Ghemawat, 2010, p. 56). Through assessment of leadership performance to organizational strategy objectives and goals, organizations are more likely to succeed in the continually changing global, sustainability, business environment. The development of the standard assessment LABSC model helps organizations assess and make informed decisions concerning business leadership performance as a whole.
Summary of the Study

To effectively explain how leadership performance is assessed through the LABSC, a combination of ten personal attribute sub-elements which are critical to nearly all business environments, were tested and correlated to business synthesis points that demonstrate positive business performance. For example, the personal attribute of loyalty could potentially correlate to customer confidence or customer loyalty. The potential implications from the theoretical relevance perspective would be the future development of the LABSC as a strategic management assessment system that would address the issue of leadership performance assessment as it relates to potential business profitability. The LABSC assessment model correlates to the original objective of the BSC in terms of measuring human behavior. Key business performance measurements such as employee satisfaction, customer satisfaction, first time quality, cost performance indexing and performance to schedule can be credited to attributes associated with business leaders. The basic principle, of this research added to the knowledge management measurement system methodology of the BSC.

This research contributes to past BSC research by demonstrating how leadership performance affects business performance and how leaders contribute to a business’s performance effectiveness in personal ways. Kaplan and Norton’s (1996) development of the BSC provides the basic foundational theoretical framework to build an assessment model upon. Both of these researchers have studied performance based BSC but never the personal attributes which leaders and managers possess. Furthermore, leadership assessment provides an avenue for current and potential company executives and managers to be adaptive to global business environments. Heifetz, Grashow and Linsky
(2009) argue that “organizational adaptability is required to meet a relentless succession of challenges” (p. 64). Businesses that have leaders, which can adjust to changing global conditions, are more prepared for sustainability opportunities.

Chapter II of this study outlines the literature review of the MASK and BSC models. This chapter includes the historical significance of the BSC, and the specific issues such as adaptation, assessment modeling, personal attributes, skills, knowledge and the integration of the personal BSC. This chapter demonstrates correlation of strategic focus and objectives that the development of a personal attributes score contributes to business performance. Personal attributes scores reflect personal performance in the objective areas. The leadership assessment balanced scorecard is aligned with Steven’s MASK model coupled with Kaplan and Norton's BSC framework. The review adds personal leadership contribution as an accountable measurement to the BSC methodology. Chapter III provides discussion on the research approach and the overall design of the research study. This includes the survey instrument and study methodology required to conduct this study within the specified time requirements. The chapter includes informed consent and study risk descriptions.

**Study Constraints and Restrictions**

There are two minor constraints to this research study. First, the BSC requires measurement across four areas identified by Kaplan and Norton in their research. The four areas are considered standard practices in BSC methodology. The four areas of financial, customer, internal business processes, learning and growth, do not have enough objective evidence in previous studies to correlate the ratio of businesses that utilize a full or abbreviated BSC for measurement. The second constraint concerns alignment of the
BSC and assessment methodology. Past research does not exist which significantly
demonstrates a combination of leadership assessment and the BSC. While a leadership
assessment BSC has tentatively been developed, some measures lack sufficient data and
may not be available.

**Study Assumptions and Limitations**

This study has three initial assumptions, which guided inquiry into the study of
the BSC and assessment modeling. These assumptions lead to limitations based on
availability of research data. The first assumption is that there continues to be ample
research that is available related to the use of the BSC in various companies. Access to
company websites, shareholder reports and studies from various BSC studies and think
tanks are available. Recently published articles and research follow traditional BSC
methodology, but have now chartered into leadership assessment. The second assumption
relates to assessment modeling. The anticipated outcome of this study was to produce an
assessment BSC based on the premise of the MASK model with defined personal
attributes. It was assumed that no other assessment model had been produced which may
replace results of this study. Finally, the third assumption concerns research into personal
attributes. Detailed literature review revealed that many studies have been conducted
which conclude that personal performance contributes to business success. At the outset
of this study, no research existed which called out personal attributes contributing to
personal performance. The assumption is that there is a correlation between attributes and
successful individual performance.
Summary

Organizations that want to remain relevant in the future must understand and address the issue of leadership performance. Assessment of leadership performance as it relates to potential business growth and profitability is important in business strategic planning. The theoretical framework of this study provides for an assessment tool as a strategic management performance assessment system. This tool not only measures leadership performance within organizations but also captures leadership capabilities around individual motives, attributes, skills and knowledge. The LABSC assessment model correlates leadership performance to the original objective of the BSC in terms of measuring human behavior. Performance measurements in areas such as employee satisfaction, customer satisfaction, accepting responsibility and understanding global sustainability are all associated with business leadership. Understanding these and other elements of a leader's performance provides the leader and companies an avenue for future growth.
Definition of Terms and Acronyms

This study has foundational basis in balanced scorecard research, which is a key concept in the study. In addition, the notion of personal attributes philosophy and contribution to business success, with the operational terms associated with assessment modeling.

www.balancedscorecard.org

Attributes: Personal characteristics attributed to an individual or organization (Kaplan and Norton, 2009, p. 7).

Balanced Scorecard (BSC): The BSC is adopted from Kaplan and Norton (1992) “balanced scorecard”- a set of measures that gives top managers a fast but comprehensive view of the business. The balanced scorecard includes financial measures that tell the results of actions already taken (p. 71).


Metrics: “Often used interchangeably with measurements. However, it may be helpful to separate these definitions. Metrics are the various parameters or ways of looking at a process that is to be measured. Metrics define what is to be measured. Some metrics are
specialized, so they cannot be directly benchmarked or interpreted outside a mission-specific business unit. Other metrics will be generic, and they can be aggregated across business units, e.g. cycle time, customer satisfaction, and financial results” (Cokins, 2010, p. 19).

**Personal Scorecard:** The personal scorecard helps to “communicate corporate and unit objectives to the people and teams performing the work” (Kaplan and Norton, 2007, p. 154).

**Skills:** The actual “tools” and abilities that the leader brings to the business. (Variation of Stevens, 2003, p. 82).

**Strategic Mapping:** Strategy maps are “communication tools used to tell a story of how value is created for the organization. They show a logical, step-by-step connection between strategic objectives” (Kaplan and Norton, 1996).

**Strategic Objective:** Often synonymous with a general goal. In a strategic plan, an objective may complement a general goal whose achievement cannot be directly measured. The assessment is made on the objective rather than the general goal. Objectives may also be characterized as being particularly focused on the conduct of basic agency functions and operations that support the conduct of programs and activities. (OMB) (Balanced Scorecard Institute, 2011). [www.balancedscorecard.org](http://www.balancedscorecard.org)
Chapter II: Literature Review

Introduction

Research into the assessment of personal leadership motivations, attributes, skills, and knowledge that contributes to building a leadership assessment balanced scorecard (LABSC) concentrates exploration in the following areas.

1. Leadership assessment systems

2. The history of the balanced scorecard (BSC).


In order to organize this literature review in a manner which best articulates the linkage between each of the aforementioned theoretical areas listed above, the sections of the literature review are divided into three areas aligned to the three research questions explored in the study. Each of the research questions is related to work from distinct fields of study and provides the foundation for this research. First, the review discusses the beliefs about individual personal leadership traits, which affects leadership performance. This section reviews leadership performance in terms of a leaders motivations, attributes, skills and knowledge. Second, this section depicts the relationship between leadership performance and measurement using the BSC model. This section is important as it links the BSC to leadership performance. Third, this section illustrates the correlation between assessment of performance on the balanced scorecard and predictors.
of leadership performance using the motivations-attributes-skills-knowledge model. The third section is important because of the distinction that is clearly made concerning manager differentiation. In order to demonstrate how a leader’s performance is measured through the BSC and defined by the MASK elements, a clear picture of how each manager’s performance is differentiated is essential.

This literature review provides a critical assessment of published literature in the three areas above and includes evaluation of literature gaps, the breath, depth, and application of theoretical foundations, and the plausible assessment of how a leader’s performance is measurable through the BSC. Kaplan and Kaiser (2009), points to past research that provides evidence to support assessment of leadership performance as necessary. This is due to “over research in the leadership development field letting managers down by inadvertently neglecting to access for overused strengths” (p.102). The BSC methodology has proven to provide the framework for measurement and assessment of organizational performance. Likewise, Kaplan and other researchers document the need for measuring a leader’s performance as businesses move into global and sustainable business environments. Stevens (2003) work with the MASK model and competency clustering has a broader, valid application to leadership assessment. The MASK model application to leadership behaviors is customizable and clearly provides for objective performance measurement. The integration of the MASK and BSC models provides adaptation from the traditional paradigm of leadership performance assessment.

Kaplan and Grossman (2010) demonstrate through modeling for new profit from social objectives of nonprofits, that “organizational strength and stability, core
operations, partnership networks, constituents, all translate to positive social, economic, and environmental sustainable change for businesses” (p. 116). These researchers core argument is that leadership assessment can bring about new profits for businesses and also help them move forward toward sustainable business practices. This assessment is best captured through the BSC methodology. Beard (2009) argues for the BSC methodology stating that “performance results should be based on a variety of assessment methods that reflect the organization’s overall mission and improvement objectives” (p. 276). With standardization of assessment modeling utilizing MASK model elements and integration of BSC methodology, businesses will be able to develop personalized assessment criteria. Businesses that already use the BSC to measure core business performance will have an assessment tool, which is familiar. It follows that integration of the LABSC will be easier for businesses that already use the BSC to measure business performance. Thus making adaptation of the LABSC uncomplicated.

**Beliefs Concerning Personal Leadership Traits**

**Stevens**

The review of the beliefs about individual personal leadership traits which affects leadership performance begins with the motivations, attributes, skills and knowledge literature that affect leadership performance. In 2003, Stevens published the Motivations-Attributes-Skills-Knowledge Competency Cluster Validation Model study that discussed implementation of community college districts workforce development competency cluster validation models. Stevens introduced the concept of building training programs within a community college district using the MASK elements as foundational to
measurement and development related to the “Motivations-Attributes-Skills-Knowledge Inverted Funnel Validation (MIFV) competency cluster model” (Stevens, 2003, p. 66).

According to Stevens, it is important to note that many employers within the United States utilize some form of goal setting, performance plans workforce programs, etc (p. 3). Steven’s note points to the two specific challenges that originate from the use of various assessment systems. First, these goal setting or assessment systems often do not examine the key motives or individual attributes which contribute to the value of the organization. Second, varied assessment and goal setting systems are separate and not linked together to strategically connect the organization. Beard (2009) argues that “organizational assessment should focus on managing for innovation, managing by fact, social responsibility, focusing on results, creating value and having a system’s perspective” (p. 276). All of these are areas are sub-measurement areas under employees motives, attributes, skills and knowledge areas and are easily captured using the BSC.

It is imperative to recognize that employee goal setting and performance plans are fundamentally void of any type of assessment system, which distinguishes behaviors that compels leaders or employees to act. Stevens demonstrated through Merriam & Cunningham et al. (1989) the seven major factors that influence and motivate those involved in adult education process. He cited “social citizenry, the many hats the adult learner wears, economics, religion, demographics, politics and the environment” (Stevens, 2003, p. 37). While all of these are applicable to adult learning scenarios, this study focuses on environmental factors as motivators of leaders performance. Toegel and Barsoux (2012) researched over 18,000 personality factors and personal descriptors that are all related to the environment that affects leaders. The factors were narrowed down to
five that consistently cross time and cultures. They include contexts from a number of research studies. The findings of the research study point to “fundamental personality characteristics for motivating leaders. These factors are the need for stability, extraversion, openness, agreeableness and conscientiousness” (p. 1). Creating an organization, which motivates and empowers employees is an important characteristic which leaders are obligated to embrace if businesses are to be successful.

**Leaders Motivation**

When examining what motivates leaders today it is important to determine which generation the leaders represents. This is particularly significant when the leader or potential leader must lead multi-generational or multi-cultural teams. Molinsky (2012) contends that “leaders today are motivated by using their knowledge of diversity, international work experience and cultural intelligence” (p. 140). Managers today must find ways to motivate multi-cultural work forces. Factors such as organizational communication, alignment of organizational and personal values, opportunity position and professional relationships make up a leader’s motivation environmental factors. When these are in conflict or void in an organization leaders are less motivated to perform. DeCusatis (2008) argues that “multi-generational teams are exposed to potential internal conflicts because of the mismatch between their preferences for different types of team participation” (p. 163). This point underscores why it is increasingly important for leaders to be able to motivate multi-cultural and multi-generational teams.

Leaders today must be able to motivate baby boomers (traditionalist), Gen X, and Gen Y employees. DeCusatis demonstrates that traditionalist communication style is a
top-down approach, “Gen X leaders prefer hub and spoke communication, while Gen Y are collaborative” (DeCusatis, 2008, p. 159). This is just one of the many characteristics that differentiate multi-generational, multi-cultural leaders. The exhibit in appendix A, clearly demonstrates how leaders in multi-generational organizations must approach motivation of employees. In the same way, when leaders are assessed based on motivational elements of their performance, they are assessed using some of the same environmental factors. The leader’s motivation is a key performance assessment area as evidence shows clearly that “high-commitment organizations outperform those where employees exhibit lower levels of motivation” (Pietersen 2002, p. 144).

Pietersen’s point is important in today’s business environment because the top-down approach to management has fundamentally disappeared. Baby boomers, Gen x and Gen y managers bring different management styles and thinking to global organizations. Consequently, each generation of leader is motivated in different ways. “Ten years ago, Gen Xers began pushing boomers to experiment with virtual relationships and electronic media communication due to the growing use of websites, e-learning, email and video conferencing” (Emelo, 2011, p. 33). Managers today must understand and apply a variety of strategic management concepts to maneuver organizations through real-time issues. Barnat (2012) argues that managers must decide on the “extent to which they will be involved in the strategic and operational decision making process” (para 1). The problem confronting organizations is both internal and external to the organizations operational environment. They require managers to motivate workers to integrate decisions concerning emerging issues into operations objectives. The
ability to assess how these multi-generational managers are motivated, and how well they motivate employees is important to their success. Molinsky (2012) contends that their “professional success” depends on it (p. 140).

**Leaders Attributes**

Stevens (2003) defines an attribute as “any property, quality, or characteristic that can be ascribed to a person or thing” (p. 12). This definition is broader than a personal trait which, is specific to a distinguishing feature of an individual. The broader term is applicable to this study as it allows for flexible assessment of a leader’s attributes which may vary from business to business application. In a 2010 study, McCarthy, Puffer and Darda described the attributes of hard work, strategic vision and taking a proactive approach as common among all successful leaders. They all followed the principles of “openness and transparency” in their work, running a responsible business, with “substantial attention to corporate governance” (p. 66). By utilizing Stevens definition, the MASK model is ideal for leadership assessment using the BSC methodology.

Globalization plays an important part in the capacity of a leader to influence their business environment. Companies are continually changing business strategies, operational goals, processes and procedures. Leaders in businesses today require assessment of attributes to a greater degree than leaders in the past due to changing business frameworks. Gillis (2012) contends that there is “a shortage of global leaders which hinders companies global business strategy execution” (p. 26). This reality establishes the true need for expanded leadership attribute assessment. Individual attributes vary from industry-to-industry and country-to-country but generally fit into eight attribute groups.
Attribute Groups

Gillis (2012) upholds the premise of leadership attributes as “competencies which has significant implications for global leadership” (p. 29). The leadership attributes conceptual framework provides the structure for sub-attribute groups. The core leadership attribute groups are categorized by personal and experience attributes. The personal attributes are personal values, discipline, personality, culture and social values. The experience attributes are networking experience, global experience and leadership practicum experience. These attributes provide primary assessment criteria and are measureable in the context of the leadership assessment balanced scorecard. The sub-groups provide the leadership variable for each leader based on their overall background.

Personal Values

Personal values are developed over a long time and can be defined in many ways. Anderson (2003) defines values as “strongly held preferences or standards that guide the conduct of people” (P. 308). This definition supports identification of personal principles which are core values. Andersons description does not however provide for a leader’s outward manifestation of personal business values. Wilson (1989) simply describes values as “idealistic and strongly orientated toward achievement” (p. 69). This definition is appropriate for this study, and translates into fundamental beliefs and outcomes such as being truthful and humble, demonstrating a strong work ethic, or creating an environment of respect and inclusion. In terms of leadership assessment, personal values are the behaviors which leaders model. Further, they are behaviors leaders consign toward successful business outcomes.
General values such as promoting personal integrity, building and earning trust, being void of abusive or intimidating behavior, being ethical in all situations, and demonstrating commitment should be common to all businesses. Determining which personal values best influences business outcomes is a major consideration of individual organizations. Leaders in the non-profit sector will need to be assessed to some of the same personal values as those in the private, or public sectors. However, those in the non-profit sector may place more emphasis on the assessment of personal values due to the business model they are in, versus those in the private sector. Executives in the private sector may want to assess a manager’s commitment as it applies to the business segment they are in, based on strategic objectives. Those in the non-profit sector will assess the same attribute but as it supports the mission, they serve.

**Discipline**

The attribute of discipline is two-fold. First, it refers to application of discipline in the performance of day-to-day business objectives. In this application, leaders doing the compulsory things that are required of them in terms of job performance. The second part of this attribute refers to self-discipline. Hubbard (2009) suggests that there is some evidence that “organizations follow an evolutionary path in their attitudes and behaviors from compliance to competitive advantage” (p. 181). This describes the personal aspect of discipline which is not compulsory but instead is a reflection of personal character. Under this attribute, initiative, resiliency, self-motivation and empowerment can be assessed and can contribute to quantification of organizational competitive advantage. The survey instrument in this study addressed discipline by asking direct questions in
each of the four assessment areas of motivation, attributes, skills, and knowledge. In addition, discipline was addressed in questions 41-50 by asking research participants specific questions regarding their performance.

**Personality**

Personality is an attribute, which has a direct impact on business performance. Southwest Airlines for example gives each job applicant personality tests prior to making a hiring decision, Pellet (2010) indicates that “the hiring philosophy at Southwest Airlines has always been hire for attitude” (p. 16). The airline does this in order to find and place workers in the company that fits the personal persona of the company. Managers in all businesses bring with them distinct personality traits, which distinguishes them in the organization. The leader lives in and operates out of a world of “multilayered complexity, sharing a particular view in interpreting the experience in compelling ways that enables others to develop trust into risk being and doing” (Scott, 2000, p. 39). This argument speaks to the importance of building organizational personality through the personalities of leaders in the organization. The assessment of this personal attribute demonstrates how well the leader creates and models a confident, and a winning environment. Molinsky (2012) argues that this attribute is the ability to “code-switch between cultures and requires a capacity to manage the psychological challenges that arise when someone tries to translate cultural knowledge into action” (p. 140). In addition, this attribute informs the organization how well the leader creates an atmosphere of opportunity, takes risk, stretches himself, and demonstrates team building capacities. Assessing leadership personality also establishes how the leaders set expectations for their teams.
Culture

Increasing numbers of companies are expanding beyond national borders and consequently many managers work in an “international context and need to deal with subordinates of different cultural backgrounds” (Van Woerkom, De Reuver, 2009, p. 2013). Assessment of a leader’s ability to interact with intercompany and other cultural issues is essential to the leader’s personal growth and a business’s global strategy. Multicultural work environments necessitate a leader’s abilities and knowledge in this area. This attribute is a reflection of the leader’s insight and awareness of the socio-cultural differences. Harvey, Fisher, McPhail and Moeller (2009) term this insight and awareness “cultural IQ” (p. 361). Cultural IQ demonstrates a manager’s understanding and awareness of the embodiment of cultural experience to the business.

Skills

The skills element of the MASK model is defined by Stevens as the actual “tools” and abilities that an employee brings to the process (Stevens, 2003, p. 82). This definition, which Stevens utilized for the MIFV model was suitable for use in this empirical study with one variation. The difference is the term process. In today’s global business environment, assessment of a leader’s skills as they relate to the day-to-day operation of the business is one of a leader’s strengths. The redefined description of the term skills for this purpose of this study is the actual “tools” and abilities that the leader brings to the business. Zavyalova and Kucherov (2010) argues that such factors as “the ability to influence personal matters, the ability to feel important, personal morale, the ability to show creativity and skills” are a minimum satisfaction of needs for managers
(p. 229). This element’s description takes into account the sustainable aspects of the leader’s skill-set required for business execution.

**Knowledge**

A leader’s knowledge is the totality of understanding which the leader brings to bear within the organization. For instance, Dawson and Rahim (2011) conducted a research study exploring program leadership in the defense acquisition and aerospace industry. On a survey question they discovered that 75% of the respondents did not have a strong answer regarding whether an individual should be a technical expert to manage the program. According to Dawson and Rahim, “nonetheless, it does appear that one must have knowledge of the business market if seeking growth” (p. 177). This discovery on a survey instrument indicates that the leader’s level of knowledge concerning overall occupation, industry, business sector, company, and a host of other idiosyncratic issues is critical to a leader’s performance in today’s business environment. Managers today face a new set of problems; products of a volatile and unforgiving environment. Some of the most critical: “How in an age of rapid change do you create organizations that are adaptable and resilient as they are focused and efficient” (Hamel, 2009, p. 92).

Cultivating a leadership culture that understands business integration, innovation, other cultures, and social environments is essential for leaders. By assessing the knowledge level of leaders, organizations can strategically move the organization toward a continuous improvement solving business problems utilizing the existing intellectual capital it has.
History of the Balanced Scorecard

In January 1992, Robert S. Kaplan and David P. Norton introduced the balanced scorecard methodology to measure business performance. The BSC came about through a “yearlong study of 12 organizations” by Kaplan and Norton (Kaplan and Norton, 1996, para 2). The study was conducted with the belief that performance management systems, which had been based primarily on financial data, was not adequate enough to provide companies with sufficient data to remain competitive. The results of the study indicated that financial measurements did not take into account the customers point of view, workers’ point of view, market factors, and other value added measurements. Additionally, internal and external factors based on intellectual, tangible, and intangible factors could be measured to get a complete understanding of a company’s health and performance to goals and objectives. The product of the Kaplan and Norton study was a theoretical model that they called the balanced scorecard.

The BSC provided financial data and measurements related to operations that could help provide financial data outcomes. Kaplan and Norton demonstrated that performance predictors such as customer satisfaction, internal and external processes, innovation, and organizational learning were drivers of business performance and financial results. According to Kaplan and Norton (1992) the balanced scorecard provided managers with “four perspectives for performance” which are leading indicators of performance. These perspectives are the customer perspective, the internal business perspective, the innovation and learning perspective and the financial perspective (P. 72). Taken together, these four perspectives balance performance measurement and help managers to select a limited number of “critical indicators” within each of the four
perspectives (Kaplan and Norton, 1993, p. 134). In practice, the concept of the BSC is based on the assumption that financial data alone did not provide substantive assessment of business performance.

Kaplan and Norton’s primary argument is that many factors such as customer satisfaction and internal intellectual capital merit measurement irrespective of financial performance. According to Marr (2005), “the BSC is the most common measurement system in practice in the U.S” (p. 18). This fact alone should further research into using the BSC as a primary assessment tool as it is embedded, and integrated into many organizational structures as a best practice. Since the inception of the BSC, organizations have continually added complex metrics as measurements. A number of studies have validated the BSC as an effective tool to help measure business performance. For this empirical study, the BSC served as the framework for measurement of leadership performance with variation in assessment criteria.

**Gaps In Historical Literature**

While goals and objectives are certainly key indicators to measure, Kaplan’s and Norton’s research and subsequent research studies have stopped short of assessing leadership performance in relation to business performance. The review of literature indicates that comparative studies between the balanced scorecard and other forms of management systems such as total quality management in many industries illustrate the strengths and weaknesses of both approaches. The gap is; that there is not a single performance management system that measures leadership performance. There is not any comprehensive study that directly addresses assessment leadership as it relates to
personal attributes that correlate to measurable objectives. The 360-leadership development tool is generally considered a useful tool for leadership development purposes but only points out a leader’s strengths and weaknesses. Kaplan (2009) contends that “leadership development tools such as 360’s do not show you when a strength taken too far has become a weakness” (P. 101).

The current 360 tools available stop short of assessing potential leadership performance. According to Kaplan (2009), “current leadership measurement tools demonstrate leaders’ strengths and weaknesses but such tools overlook a key lesson from decades of research on derailment: More is not always better, and executives lose their jobs when their strengths become weaknesses through overuse” (p. 101). Conceptually, leadership performance assessment through a balanced scorecard methodology would provide a mixture of quantitative and qualitative assessment of personal attributes of the leader to business objectives and goals on the BSC. This would be accomplished by qualitatively measuring the leader’s traits to leadership best practices. That said, the principle of “continuous improvement must be applied not only to business processes but also to the scorecard system used to assess them” (Chen, Jones, 2009, p. 44). Together, these would be matched to business strategic objectives metrics through the balanced scorecard.

Specific Theoretical Themes

Balanced scorecards were created as a strategic approach and performance management system that could be used in many business applications to measure business performance to objectives or goals. To put the balanced scorecard to work,
“companies should articulate goals for time, quality, and performance and service and then translate these goals into specific measures” (Kaplan and Norton, 1992, p. 73). This point is important to the execution of a company’s corporate vision and strategy. In measurement of leadership capabilities and assessing overall leadership performance, the BSC should be used to align unit and individual goals with strategy; conduct periodic performance (Kaplan, 2007, p. 161). Additionally, measuring objectives utilizing the BSC methodology against the status quo, strategic objectives, strategic actions, industry contributions, and quantifiable sustainability measurements is the start of sustainable assessment and standardization. By establishing baseline objectives for businesses, individual leadership potential can be measured against business sustainable growth objectives.

Measuring leaders benefit companies as they compete in the global, sustainable marketplace. Iselin, Sands and Mia (2011) advise that in organization’s search for improved performance, that a “continuous improvement systems is associated with organizations achieving higher performance in the customer perspective” (p. 22).

Providing standard business measurements and assessment through the BSC framework establishes industry standards and provides a continuous improvement model. Adherence to policies, processes, and governance objectives should form the baseline for effective personal performance assessment within the BSC framework and establish quality metrics that are leading indicators for direction and predictive analysis. Measuring managers against continuous improvement goals through the BSC structure is critical. Continuous improvement would be incorporated into the “targets (goals) and performance reporting measures and the performance reporting system would enable the
organization to see if the continuous improvement goals had been met” (Iselin, et al., 2011, p. 25). Theoretically, assessing leadership performance clearly falls into the original BSC underpinning Kaplan and Norton established in 1992. The concept of the BSC has traditionally measured financial, customer, internal business processes, learning and growth. Leadership measurement aligns under the original concept and theoretical framework within each of the traditional areas. This type of assessment eliminates the gaps found in literature by providing a well-rounded picture of the leader’s potential for leadership success. Research conducted by subject matter experts (SME) point to the need to utilize a mixture of leadership performance indicators to construct a broader picture of a leader’s potential.

**BSC Adaptation**

The balanced scorecard theoretical framework addresses the four perspectives of business performance to be measured but leaves out how a leader’s accountability is measured using the four quadrant perspectives of customer, financial, internal business, innovation and learning. What the BSC leaves out is four measures that the MASK model incorporates. Bonesetter (2000) promotes “measuring position performance and measuring a leader’s behavior, competencies, attitudes and knowledge or experience” (p. 143). This is one reason the MASK model is important to adaptation to the BSC. The MASK model elements are specific measures of a leader’s performance while in position and are a logical adaptation to the BSC structure. The BSC methodology is well suited for adaptation to assess leadership performance but is not currently used in such a way. Conversely it measures a leader’s efficiency to a baseline goal. The adaptation of the
balanced scorecard measures performance but is not used as a predictor to assess potential leadership performance or even a leader’s effectiveness. Thomas (2009) advocates the use of the BSC methodology as the “framework for assessment of linkable relationships between certain specific personal attributes and quantitative targets” (p. 34). The assessment of a leader against business performance objectives fits well into Robert Kaplan’s work in the area of balanced scorecards. It is clear that the BSC methodology can be applied in many different applications. The BSC framework is easily understood and the application of strategy mapping into the BSC provides the seamless model to demonstrate correlation of leadership attributes to business performance synthesis points. Ideally, adaptation of the BSC into the LABSC benefits companies to achieve strategic goals and objectives as they move into sustainability management for future growth.

The LABSC makes it possible to take into account non-monetary strategic success factors that significantly affect the economic success of a business. Bonnstetter (2000) indicates that there is a “finite, measurable set of global leadership competencies” (p. 139). The balanced scorecard is thus a promising starting point, which also incorporates environmental and social aspects into the main management system of a firm. The ability to adapt the BSC for to the LABSC for measurement of a leaders knowledge of sustainability management is important to the growth of a company. The balanced scorecard helps to overcome the shortcomings of conventional approaches to environmental and social management systems by integrating the “three pillars of sustainability into a single overarching strategic management tool” (Figge et al. 2002, p. 269). To this point, leaders can be measured against performance objectives for sustainability.
Personal Balanced Scorecard

In 2008, Hubert Rampersad introduced the concept of the personal balanced scorecard (PBSC). Rampersad contends that the premise behind the development of the PBSC is to help organizations measure employee and manager engagement. Like Kaplan and Norton's balanced scorecard, the PBSC has elements divided among the four perspectives of internal, external, financial, knowledge and learning. The PBSC is a “scorecard of personal work and non-work, encompassing your personal mission, vision, key roles, critical success factors, performance measurements, target and improvement actions” (Rampersad, 2008, p. 13). The major drawback to the theoretical framework of PBSC is that it is centered on self-improvement and empowerment and not focused on assessing a leader’s effectiveness towards business goals and objectives. Sims (1992) suggests that companies who wish to compete must produce “evidence of leadership and long-term planning” (p. 126). Sims’ point means that verifiable evidence of leadership performance is required; the PBSC falls short of this objective and does not fit in authentication of any leadership measurement comprehensive framework.

Another point is that organizations must have a well-developed strategy in place to form the basis for a leader’s performance assessment. For instance, Tubbs and Schulz (2006) argue that “going against outdated or ineffective practices, building trust, varying leadership to the demands of the situation, delegating effectively, evaluating others, mentoring others, leading with sensitivity and empathy should be measured performance” (p. 32). Organizations should measure these performance areas against organizational strategy objectives. The PBSC model does not take into account the organizational strategy validity as a baseline for assessment. Organizations that have “a well-developed
strategy in place, but sometimes the opportunities are not within the scope of the existing plan” (Robinson, Lundstrom, 2003, p. 259). This argument brings to light a major shortfall of the PBSC theoretical framework. In order to ensure leaders are assessed accurately, the MASK model structure is better suited for BSC integration thus making the traditional BSC an enhanced version of the original PBSC model.

**Strategy Focus**

Kaplan (2000) points out four key principles of strategic management systems that are considered model measurements for balanced scorecards. Kaplan contends that “hard to quantify indicators of corporate health, which are, tied to organizational strategy, should be measured through the balanced scorecard” (p. 4). Metrics, which measure the customer, internal business processes, organizational learning, and company growth as they relate to company strategy are established as basic to every scorecard. Leadership assessment and tracking of performance through balanced scorecard should fit these four key principles and focus on performance mechanisms that are tied to accountability. The BSC is a systematic approach for concurrent leadership and management of organizations, and is the established norm for strategy focused organizations (SFO). Leaders must be able to “operate across boundaries and forge links between organizations; consequently, the outward “face” remains increasingly critical to successful leaders and organization” (Bell, Elkins, 2004, p. 15).

The principles of translating strategy into operational terms, aligning the organization to strategy, making strategy everyone's job, making strategy part of the continuous improvement process, and mobilizing change in executive leadership are Kaplan’s key principles. He contends that they are the core of integration of strategy to
measurable outcomes. In order for accurate assessment of leadership performance, the
MASK model elements necessitate replacement of traditional BSC measurement areas.
By integrating the MASK elements, the aforementioned principles of translating strategy
into actionable performance for continuous improvement are accomplished. Measurable
outcomes in the areas of a leader’s overall performance, skill sets, and knowledge
provides a more complete assessment of performance on an individual level.

Additionally, emerging business strategies in the areas of global sustainment and
cultural management effortlessly align to MASK model elements of knowledge and
skills. Goodman (2012) promotes measurement of leaders in areas such as cultural
intelligence arguing that “those who master cultural intelligence not only will be better
leaders, they will be more innovative and open minded, with capacity to simultaneously
view the same situation from multiple perspectives” (p. 35). Goodman’s argument
indicates why it is important to assess personal attributes, knowledge and skills of leaders
in a systematic way. That said, Kaplan’s BSC model has been modified over the years
but never to accurately assess individual performance. The primary argument for
assessment through the MASK model elements is that it provides the most
comprehensive assessment tool for leadership performance.

BSC Measurement System

Moullin (2009) argues that “a leader’s performance measurements and targets
must be based on the outcomes” (P. 26). Timmons (1979) contends that “successful
leaders pay attention to their own strengths and weaknesses as well as their team’s” (P.
198). Coupled together, these two arguments propose that identifying leaders’ strengths
and weaknesses and then measuring them through performance outcome based targets is
key in the assessment process. Additionally, Kaplan and Norton (2006) argue that “a management system based on the balanced scorecard framework is the best way to align strategy and structure” (P. 103). A survey of 60 BSC users reveals that 70 percent base managers’ compensation on the BSC or some variant, 17 percent have actively considered the use of the BSC to determine compensation, and 15 percent use the BSC to evaluate performance (Liedtka, Church, Ray, 2004, p. 74).

Leadership is measured in terms of skills and capabilities which could also take into account the qualitative attributes of personal values and ethical standards. Measuring the leaders through a BSC based system, therefore, provides both “a template and common language for assembling and communicating information” (Kaplan and Norton, 2006, p. 103). Balanced scorecard performance based measurements provides a solid foundation from which to begin assessment of leadership effectiveness and provides the standard framework and theoretical underpinning. It is the “adoption of an entire performance management system around a balanced scorecard where results materialize” (Pateman, 2008, p. 11). This performance measurement system provides for organizational differentiation for businesses and leaders. It is through the assessment and evaluation process using the MASK model as the foundation that leader differentiation is best demonstrated. For instance, Zavyalova and Kucherov (2010) establish that such companies as Nike and Microsoft consider themselves efficient if they are “adaptive, forward moving and apt to change. Other organizations are considered efficient if they are stable, predictable and mechanically integral, e.g. government structures, research institutions, universities, military corporations etc” (p. 226). This distinction points to
importance of performance measurement system the companies or organizations utilize to assess leader performance.

**Strategy Mapping**

The BSC methodology has long been demonstrated as a best practice form of measurement of business objectives and goals. Leadership performance assessment within public, private or not-for-profit sectors is nonstandard and is not conducted through BSC methodology. According to Kaplan and Grossman (2010) “each organization needs to develop a strategy map and a balanced scorecard with distinct performance measurements” (P. 117). Here, the authors advocate for using the strategy map to show outcomes, critical processes, skills, capabilities, motivation, and financial management. This thought is in line with adaptation of leadership assessment through BSC and indicates that the use of a strategy map linked to a leadership BSC. Takamine (2008) puts forth the thought of “cultural antecedents” (p. 76) of an organization. This term refers to the ethnicity, gender, nationality, and other human characteristics which are important to organizations. These antecedents can be mapped and adapted to leadership performance assessment and is important as leaders perform in diverse and global organizations. The BSC strategy maps provide several leadership performance attributes giving organizations and individuals with a strategy management system a reporting framework for a leader's accountability.

**Limits of Research**

There are two limitations to this research. First, the BSC requires measurement across four areas identified by Kaplan and Norton in their literature. The four areas are standard across a BSC; however, objective evidence in literature does not exist as to the
ratio of businesses that utilize a full or abbreviated BSC for measurement. This limitation reduces the ability to assess how useful BSC research is to the business sector. Second, there is also no evidence in literature that reveals that a combination of leadership assessment, and the BSC are being used together. While a leadership assessment BSC has tentatively been developed, some measures for a few businesses lack sufficient data and are not available.

**Research Relevance**

This topic is significant because the capabilities of the leader are becoming increasingly important in the constantly changing social and knowledge based business environment, leaders find themselves in today. Leadership performance is essential for organizational success. Hence, leadership performance must be assessed in current business structures since the circular economy, and sustainment business cultures are found in today’s global business environment. Additionally, “global alliances, and partnerships are growing; and the need of research into BSC methodology to measure leadership performance can clarify strategy, drive behavioral change, and provide a governance system for strategic execution” (Kaplan, Norton, Rugelsjoen, 2010, p. 117). Assessing leadership potential or factors that measure leadership performance through the BSC methodology adds to research conducted in business leadership and in BSC evolution. In addition, research into the use of BSC’s in practice indicates that, “in general they have a positive effect on organizational performance across a broad range of performance dimensions of interest” (Iselin, et al., 2011, p. 21).

Fiksel and Bakshi (2007) suggest that “resilience is the capacity for a system to survive, adapt, and grow in the face of turbulent change” (p. 10). This definition is in line
with utilization of the BSC methodology to capture measurements across industries. For example, if all companies in a given industry used a standardized BSC to track sustainability effectiveness, then the entire industry would move in the same direction towards the same sustainable goals that are established for a particular industry. Moreover, accurate assessment within the specific industry and by individual companies would be more valid. Hacking and Guthrie (2006) argue that “the aim of assessment should be to confirm that the proposed initiative would result in progress toward (at the project level) or achieve (at the strategic level) be aspirational goals, while remaining within the boundaries set by the thresholds” (p. 357). Considering that resilience of an industry or organization is a matter of flexibility, any long or short term sustainability goals that change the economic, environmental, or social impact of the industry or business would be measured wholly across an industry. The implementation of a leadership assessment performance management system through the BSC methodology would help companies increase performance, improve sustainability and resiliency in their industry because leaders could be measured on attributes, knowledge and skills that closely align to a company’s business operations and performance objectives.

**The Research Contribution**

To effectively explain how leadership performance is assessed through the BSC, a combination of five personal attributers, which are essential in nearly all business environments, were tested and correlated to business synthesis points of business performance. For example, the personal attribute of loyalty correlated to customer confidence and customer loyalty. The potential implications from the theoretical relevance perspective is the development of the BSC as a strategic management
assessment system. The LABSC adapted from the original BSC addresses the issue of leadership performance assessment as it relates to potential business profitability. McAllister (1994) suggests that “the BSC should be used as a paradigm for external reporting” (p. 156). This thought is applicable to leadership performance and assessment of capabilities, skills and overall competencies. The leadership assessment version of the BSC model correlates to the original objective of the BSC in measuring human behavior such as employee and customer satisfaction. In essence, this research contributed to the knowledge management measurement system methodology of the BSC.

Dror (2008) developed the idea of “multiple perspectives of the BSC strategy which includes learning, internal processes, customer, financial, sequential objectives” (p. 587). This research contributed to BSC research by demonstrating how leadership performance affects these areas and how leaders contribute to these areas in terms of effectiveness. There is no clear proof that guarantees, that the implementation of the proposed LABSC assessment model would improve leader performance or profitability. However, such a tool does improve the likelihood of business success given that leaders’ personal attributed traits are assessed to be in alignment to business goals and objectives. The leadership and management relevance of this research in the field is a cost-effective way for executives to measure up-and-coming leaders or potential new hires for major roles in companies.

If leaders could be assessed as having the potential to deliver results within certain business environments, this would benefit companies and their ability to hire the right candidates to match long-term company objectives. Each strategic objective area for a business is a business objective, or goal relating to a monthly score earned. These are
indicators of how the individual performs based on the company’s distinct objective. Additionally, each strategic area or objective contains personal attributes that correlate to the business objective area. The attribute score is given each month on the basis of individual performance. Collectively, the strategic objective and attribute scores are tallied each month and at the end of the year to determine the effectiveness of the leader to business goals and objectives. The attribute score reflects personal performance in the objective area. The leadership assessment balanced scorecard is aligned with Kaplan and Norton's BSC framework and adds personal leadership contribution as an accountable measurement to the BSC methodology.

**Summary**

This chapter reviewed the theoretical work of numerous scholars that provided the underpinning for this study. Researchers have provided significant breath, depth, application and understanding into individual performance behaviors and the concept of measuring leadership performance. The review of literature in this chapter examined leader motives, personal attributes, skills and knowledge. The concepts of manager differentiation, and measuring of leadership performance through a balanced scorecard methodology provided theoretical significance for this study.

Many scholars have contributed research to the theoretical position of leadership performance and measurement in organizations. As such, literature addressing leadership assessment systems, the history of the balanced scorecard and beliefs concerning personal leadership traits presented an illustration of why further research into personal leadership performance measurement was relevant in business. By examining leadership performance elements associated with strategic objectives and comparing them against
MASK model elements further discovery into leadership performance could be made. Further, literature has shown that measuring performance through a balanced scorecard methodology provides significant value to business leaders as they examine performance within organizations.

This study advances research on the combined literature described in this chapter. The study documents direct leader motives, attributes, skills and knowledge and correlates these elements to leadership performance elements outlined in this literature review. Further, this study significantly contributes to the understanding business practitioners and leaders have in regard to performance assessment and individual aspects leadership performance.
Chapter III: Methodology

Introduction

Selection of Methodology

In order to address research questions for this study a written survey instrument was used to collect the information needed. Iselin, et al. (2011) advocates the use of a survey instrument as it “allows researchers to collect qualitative data” (p. 24). There were three specific reasons for the selection of a survey instrument for this study. First, a written survey was a good instrument to use because survey questions are written the same for every potential respondent, this makes the survey quantifiable and thus measurable. Second, the survey could be sent out and received electronically, simplifying distribution and data collection. Third, the analysis from respondents could be quantified and qualified by utilizing a standard process that contributed to the timeliness and accuracy of the analysis.

One argument that demonstrates the benefits of using a survey instrument, in addition to those listed above, is the ability to send the survey electronically and then discard the surveys’ based on discontinued employment, or participant’s refusal to take the survey. Gonzalez-Padron, Chabowski, Hult and Ketchen (2010) advocate the use of the “Armstrong and Overton et al. (1977) extrapolation procedure which could be used to assess non-response bias based on data provided by respondent” (p. 972). Considering the amount of surveys that were required to be sent out to obtain reliable data for analysis, the survey instrument is optimal because the population of potential respondents can be
expanded if necessary to obtain enough responses. For instance, Gonzalez-Padron et al. (2010) sent out “943 surveys to get 169 returned for a 17.9% response rate” (p. 972). It was initially thought that an expansion of the number of surveys that were sent out for the primary survey could change based on the initial response rate from the pilot study. The comparative analysis of data required for this study suggests that using the survey instrument appropriately supported the statistical procedures required for validation of results making the survey instrument logical and the appropriate methodology.

**Approach to Data Collection**

This study empirically investigates the correlation of leadership performance indicators as predictors of future performance based on an adaptation of the Balanced Scorecard model. Emphasis on leadership performance assessment and measurement is important to distinguish, therefore; for this study, the written survey provided a format that was suited for a series of close-ended questions that provided linkage to the relationship between leadership motivations, attributes, skills, and knowledge. This survey was designed to capture the elements of Stevens’ (2003) MASK model and performance improvement elements. The fundamental design issues that are applicable to the survey instrument are consistent with business and academic best practices for data reduction errors, cost reduction, timeliness for respondents, and timeliness for results analysis. Pershing (2003) indicates that the key to ensuring the quality of the survey is that “questions and responses are varied to help counteract bias that stems from response and the inclination to provide socially desirable responses” (p. 106). These best practices
include using electronic distribution and delivery of surveys, deadlines for respondents to complete and return surveys, and milestones for data analysis completion.

The written survey utilized to collect data addressed research questions. This method was chosen to collect information for the study to allow for statistical comparison of leadership performance indicators. The survey instrument was based on criteria developed from literature review analysis. This analysis provided information for the research questions and hypothesis formation. Substantive research question inquiry provided consistent response data that tended to be uniform. The framework for the survey instrument was drawn from designs gleaned from other survey instruments. This best practice assisted with developing a survey instrument, with professional design, formatting, and content.

**The Survey Instrument**

One main observation discovered while conducting the literature review for this study was that other researchers designed and conducted surveys for research and topics closely related to this subject. Kaplan and Norton conducted numerous surveys related to research of the balanced scorecard. Stevens (2003) conducted a survey related to the MASK model, and Thomas (2009) conducted research using a survey instrument. Unfortunately, there were no existing survey instruments that precisely addressed the research topic, research questions, or leadership modeling that this study called for. Therefore, a newly devised survey instrument was developed. This survey ensured that research into the assessment of personal leadership attributes contributes to building a leadership performance assessment balanced scorecard. The survey specially concentrated on leadership assessment. One argument for using a newly devised self-
administered survey is provided by Pershing (2003). She argues that “selecting a self-administered survey format allows respondents time to consider their responses” (p. 105). This point is important because the quality of the responses are likely to be improved. The use of a self-administered survey instrument is an effective way to provide respondents with a medium that does not overwhelm them nor place a burden on a respondent’s time and schedule. Considering that a large number of respondents were necessary in order to conduct quality analysis for the research study, the electronically administered survey instrument served as a best practice. The primary survey instrument correctly constructed ensured questions and responses were straightforward, free of bias, and directly related to measuring the underlying concepts of the study.

**Instrument Development**

Developing a draft survey instrument required questions that were focused on distinct concepts, clear and unambiguous, free of bias, comprehensible, and structured so that they could be answered affirmatively. The type of construction of questions followed a summative Likert scale that utilized four selections for respondents. Gay and Airasian (2000) concludes that” a Likert scale asks participants to respond to a series of statements by indicating whether they strongly agree (SA), agree (A), are undecided (U), disagree (D), or strongly disagree (SD) with each statement. Each response is associated with a point value, and an individual’s score is determined by summing the point values for each statement” (p. 156). The Likert scale for this study only included the selections of strongly agree, agree, strongly disagree, and disagree. By using only four response choices without the ability to select a neutral response, only clear and unambiguous choices could be selected. This helped distinguish affirmability of respondents to each
question, and eased analysis of responses. This type of question construction was applied to respondents’ motivations, attributes, skills, knowledge, and beliefs toward questions related to hypotheses and research questions. By using a summarized Likert scale approach, random error was reduced and accurate measurement of concepts resulted. Additionally, giving respondents four possible response choices narrowed the respondents’ ability to introduce personal bias. Options such as “no opinion” or “no response” were not choices for respondents, only affirmative responses could be selected by respondents.

**Question and Response Design**

As mentioned in the previous section, each question afforded the respondents four choices in which to reply. Elimination of neutral responses promoted responses that were clear and without bias. Therefore, questions in the survey were specific and close ended, leaving any ambiguity out of responses. Each question was written in English with instructions for completing the survey as part of the introduction to the survey. In the development of the survey, several steps were taken to increase validity of the instrument. First, the use of closed-end questions, reduced misunderstanding and provided a clear focus. Second, section headings such as attributes, motivations, knowledge, skills and behaviors segregated analysis areas in the survey and clearly defined the respondent topics. Third, since a Likert scale model was used for measuring responses, the survey provided clear and distinct responses from respondents. Forth, questions were written for the appropriate reading and comprehension levels. Fifth, each question captured a single leadership behavior under the MASK headings. Sixth, the use of idioms, slang, business acronyms, jargon and terminology that may inject respondent
bias or misinterpretation were not used in the survey. All of these controls mentioned in this section served to ensure response error was reduced to the lowest possible level so that a true and accurate analysis was conducted.

Pretesting, Validity and Reliability

Pretesting

A pretest was conducted using the survey instrument in order to ensure the survey was bias free, and contained content that enhanced validity of the research study. The pretest also assisted in determining if responses were well distributed, if questions were valid, and had clear meaning for respondents. The pretest survey also ensured inconsistency and redundancy were eliminated. The reliability of the study was measured by the pretest which served as the pilot project for the study. Gay and Airasian (2000) indicates that “pretesting is a way of determining content validity” (p. 289). The pretest survey instrument was administered to a group of 50 randomly selected manufacturing, banking, non-profit, public, and aerospace sector managers, senior leaders and executives. The survey was administered over a two week period. The purpose of selecting a wide range of managers from various backgrounds and industries was to establish the reliability of the survey prior to administering it to a larger group.

The randomly selected managers were excluded from the formal study survey that was administered after the pretest survey. The same industries and sectors were selected for the formal survey but did not include the same organizations. For example, the pretest was administered to a non-profit organization that works with youth as its mission, the formal survey instrument was administered to a non-profit with a community restoration mission. Additionally, the pretest survey instrument validated the survey content and
demonstrated that the Leadership Assessment Balanced Scorecard was the appropriate and most accurate medium to demonstrate the performance of leaders. As recommended by Gay and Airasian (2000), the pretest group was encouraged to “make comments and state suggestions considering the survey directions, recording procedures, and specific items” (p. 287). The analysis results of the pretest survey and a demonstration of the LABSC is presented in the results’ chapter of this study.

Validity

“Validity is the most important characteristic a test or measuring instrument can possess” (Gay and Airasian, 2000, p. 161). In an effort to ensure a valid survey instrument was generated for this study, it was important to eliminate as many subjective questions as possible. By asking questions that were direct, and related to specific leadership performance behaviors, motivations, attributes, skills and knowledge then validity could be accessed through direct correlations. Questions that address individual memories, attitudes, personal feelings, or personal opinions were not part of the survey instrument, therefore, only objective responses were offered to respondents. For example, in the area of motivation, respondents were asked what motivates them? The respondents were given exactly ten, direct questions to respond to. The same pattern took place in the areas of attributes, skills and knowledge.
Content Validity

According to Pershing (2003) in the case of a scale attempting to measure beliefs, “it is not possible to obtain a list of the universe of appropriate items; nonetheless, it is possible to take steps to enhance content validity” (p. 117). Questions 41-50 of the survey, respondents were asked to focus on individual leadership performance behavior. Questions such as “assessment of my leadership performance is important to me?” and “the balanced scorecard is a good tool to document my leadership performance?” These questions were scored on the Likert scale just as questions 1-40. The difference here is that these questions are more leader specific and generalized in nature. These questions are well within the definition of content validity expressed by Gay and Airasian (2000) which states that “content validity is the degree to which a test measures an intended content area” (p. 163). To evaluate the degree to which the survey instrument actually measures the correct content, several steps have been put in place to ensure content validity. First, the survey instrument was reviewed by a university faculty mentor to ensure content aligned with goals established for survey construction. Second, analysis was conducted by the researcher to ensure responses align with pretest results. Comparative analysis was conducted to ensure anomalies are eliminated from survey results.

Construct Validity

While abstract leader’ motives, attributes, skills, and knowledge cannot be conclusively measured, it is possible to infer the presence of construct validity and consider how each relates to other constructs. In order to safeguard construct validity it was important to demonstrate key relationships to the major elements of the study.
Construct validity analysis was accomplished to demonstrate the relationships of variables to each other. Additionally, convergent validity analysis was conducted as a form of construct validity that measured comparisons between different measures. Convergent validity provided indication of similarity among measures. This test for validity would infer that the survey instrument was valid for testing of hypotheses. In addition, the MASK model, which provides theoretical framework for sections of the survey, has been validated by Stevens (2003) and has been documented as reliable on a number of occasions. By adapting Stevens MASK model, the evidence of similarity was injected into the survey instrument, thus strengthening the convergent validity of the survey. Kaplan and Norton’s (1992) Balanced Scorecard methodology also provided theoretical support for the pretest and formal surveys. The LABSC, which is adapted from these researchers’ BSC work has been validated, and tested for reliability many times over. By integration of Kaplan and Norton’s theoretical content into the research project, and providing a true random sample in the survey instrument, content validity is assured.

Reliability

It was important to ensure data collection was consistent and reliable. It was imperative to institute validity and reliability of the survey instrument during the pretest phase. Once the formal survey was administered, correlations were made to ensure the reliability of the data. Additionally, the pretest provided enough data to utilize as a comparative base for the primary survey. The pretest provided the best data set to comparatively test against since it was derived from the same basic population. Several steps were taken to ensure the reliability of the survey instrument. First, in order to ensure
data collection was reliable only one version of the survey was produced. Second, a strict control process was applied to survey distribution and respondents’ collection procedures. Third, the statistical methodologies used to analyze data were uniform throughout pretesting and the formal research study analysis. Forth, the use of clearly defined, single option questions greatly reduced error induced by respondents which increased reliability. Because of a consistent administration process, a dependable survey instrument, strict controls, and replicable analysis processes, the internal reliability was secured. An additional pre-test test for reliability was accomplished by comparing respondents of two or three business sectors (public sector managers and aerospace sector managers) pre-test responses against each other in a test for normal distributions. This type of correlations was planned for inclusion into the pre-test because of all of the four aforementioned internal reliability processes discussed above. Additionally, such a test strengthens the reliability of the test and provides a repeatable process for any subsequent or similar testing on the same topic.

**Population and Sample Selection**

The population for this research study consisted of senior leaders and managers in five different business settings. The population consisted of 50 managers for the pre-test survey, and 120 managers for the formal survey. The non-profit, public sectors, manufacturing, aerospace, and banking industries were utilized to represent a wide distribution among various business environments. It was important to get survey responses from different industries for comparative analysis. This was also accomplished to validate the LABSC as universally applicable in many different business setting, cultures, and operating environments. The selected organizations contained managers at
different stages in their careers and at various experience levels. Respondents came from very diverse backgrounds culturally, and economically. The surveys were distributed in organizations located in San Antonio Texas, and Philadelphia, Pennsylvania. This was to ensure the respondents were culturally diverse in terms of race and ethnicity.

A total of 250 surveys were sent out to participants for the pretest and primary surveys. The participants were selected from a list of 380 managers by casting a die and selecting the next manager in order based on the number on the die. For example, if the die landed on two, then the second manager on the participant list was selected. If the next cast of the die landed on six, then the next manager, six down on the list was selected. This process continued until 50 participants were selected on the pretest survey and 120 for the primary survey. Once it was determined that 80 more surveys were required for the primary survey, then this random selection process was again followed until the required number of participants were selected. By distributing the survey instrument to several levels of management from various diverse backgrounds, it assured the survey was exposed to matrix based organizations that were multicultural, and contained several levels of executives, senior managers, first line managers, and key functional leaders. Because some of the organizations selected for random distribution of the survey were very large, the number of surveys that were deployed ranged from 120 to 200. The large number of surveys allowed for enough respondents, to complete a quality research analysis from returned surveys. The large number of responses provided for additional statistical testing and analysis increasing the soundness of the research study. These surveys were sent through electronic mail (e-mail). A survey linkage was sent to each manager and other functional leaders in the identified organizations. The e-mail
message requested each recipient’s participation in the study. A brief background and purpose of the study was identified in the e-mail message with the significance on the confidential nature of the responses as part of the instructions of the survey.

**Informed Consent**

“Giving a responder a good reason for cooperating, giving them directions for filling out the survey and promising anonymity are the primary reasons for consent” (Gay and Airasian, 2000, p. 286). The informed consent in this study outlined the study and informed participants that the study was intended to determine the effectiveness of a leadership assessment system using the balanced scorecard to measure leadership performance. The survey consisted of fifty questions and took approximately fifteen minutes to complete. The questions were all multiple choice questions. Each participant was asked to answer questions in a survey that would help determine leadership assessment outcomes. All participants were informed that the analysis synthesized from the study measured responses to questions concerning a leader’s motivations, attributes, skills and knowledge as they apply to leadership performance. Instructions for filling out and returning the survey instrument via e-mail was given. Participants were also given contact information so that they could contact the researcher in case of questions regarding the study.

**Risk and Benefits**

The risk associated with this study was very low as participation was solely by survey only. There were no potential financial risks or burdens to participants in the study. Participation was voluntary, and anonymity and confidentiality was maintained.
because no names were used in the study. All e-mail addresses and any personal data were kept secure and were not given to anyone outside the primary investigator. The doctoral committee reviewing the study for approval only have access to the statistical data from the survey and no personal data gathered as a result of the study. The collection of data was protected in a secure database owned by the investigator of the research. Participants were only identified by a number code so that no personal information was gathered. The data will be destroyed after a period of three years by erasing the database used in the study.

**Data Collection Procedures**

While the survey instrument was sent out through e-mail, the opening and monitoring of the survey was not conducted before the designated time frame. A period of two weeks was given to each respondent to complete the pretest survey and three weeks was be given to each of the formal survey respondents to return the survey. A rigorous follow-up process was followed to ensure the maximum amount of surveys were completed and returned. Follow-up e-mails were sent out to respondents every five days after the initial survey was sent out as a reminder to complete and return the survey. To ensure the survey results were completely random the respondents were instructed to not include any personal identification data such as their name on the survey. Any surveys that were returned and had identification data on them was rejected. Once the controlled period was complete, the surveys were tabulated for analysis.

**Independent Variables and Dependent Variables**

Since personal identifiable information such as age, sex, nationality and functional area were not collected; independent variable information included the
variables of the MASK model elements identified in the survey instrument. The dependent variables consisted of the respondent scores on questions concerning leadership behaviors in the survey instrument sections of attributes, knowledge, skills, and motivations. The dependent variables provided measurement on leadership behaviors which aligned under the original concept and theoretical framework within each of the traditional areas of the MASK model. The dependent variables were the measurement of leadership potential for assessment and overall leadership performance using the BSC model.

**Approach to Data Analysis**

The approach to data analysis began with the analysis based on the summative Likert scale. The survey’s response scale provided a selection of four choices for respondents. The ranges consisted of these responses: (strongly agree, agree, disagree, strongly disagree). Data correlations in the variables were initially evaluated and compared to pretest survey results. This step was conducted for the formal survey instrument in order to ensure results were similar to those found in the pretest. The sample size on the pretest was much smaller than the formal study survey, therefore percentage comparisons was the only level of analysis conducted in this step. The second and third preliminary steps analyzed participation rates and non-response data. Analysis continued with independent variance analysis against hypotheses. Finally, analysis was conducted to answer research questions. The relationship of leadership behaviors to MASK model dependent variables was conducted using statistical analysis. Considering that no standard calculation for non-response to surveys was utilized, then the number of
surveys returned was used to conduct all data analysis. The analysis of each of these steps is discussed in detail in the results chapter of the study.

**Summary**

A survey instrument designed to collect information concerning leadership performance elements and MASK model sub-elements provided the data for this study. Managers in five different organizations in the public, private and non-profit sectors were selected to participate in the survey. Pearson correlation analysis of coefficient relationship was used to determine the relationship of leadership behaviors to MASK model dependent variables. This analysis methodology was used in both the pretest and primary survey instruments. The pre-test responses were used to test for normal distributions. This type of internal reliability process strengthened the reliability of the test and provides a repeatable process for any subsequent or similar testing.

The comparative analysis process of data for this study suggests that the sample population and correlation analysis methodology appropriately supported the statistical procedure requirements for validation of results making the survey instrument logical and the appropriate methodology for the study. Additionally, the process of calculation correlation coefficients to determine the strength of relations of MASK model sub-elements and leadership performance elements provided a repeatable process. Finally, the correlation analysis required to test dependent and independent variables provided significant relevance to answer research questions and support hypotheses testing.
Chapter IV: Findings

Introduction

As established in Chapter III, this study is designed to examine whether there is a correlation of leadership performance indicators as predictors of future performance. In particular, emphasis on leadership performance assessment, measurement and manager differentiation is the primary focus of the study. This chapter presents the survey analysis and findings. Further, it outlines the preliminary steps taken to conduct the pretest and primary survey analysis. These steps include data preparation, participation analysis, respondent characteristics and individual level analysis. The sections in this chapter describe the correlation analysis and comparative analysis of variables. Additionally, internal consistency and the relationship of leadership behaviors to the MASK model dependent variables are expressed.

The details of the comparative measuring of independent variables analysis and tests of hypotheses 1 through 4 are presented in this chapter. In order to determine if the hypotheses are supported, Pearson r analysis is conducted for each hypotheses. “The Pearson r results are the most precise estimate of correlation, its use is preferred even when other methods may be applied” (Gay & Airasian, 2000, p. 329). The findings are specifically described in this chapter, and hypothesis outcomes are demonstrated though a table format. Finally, care is taken to ensure variable correlation analysis is clearly presented to quantify findings and the associations between independent and dependent variables. Percentage of responses in each management level along with manager performance improvement behavior correlations to specific MASK model elements are
represented in narrative form with descriptive analysis of key MASK behaviors. This type of descriptive association enhances illustration of findings. The findings in this empirical study allow for value added advancement of BSC and MASK models and validation of the practicality of an assessment model that blends each of these models into a hybrid measurement system to capture leadership performance in business applications.

The findings of this study provide an unbiased foundation to further the advancement of the BSC and MASK models into a strong practical and universally adaptable assessment tool that business practitioners in every sector can utilize to strengthen their organizations. In addition, the findings of this study are intended to complement the works of Kaplan and Norton (1992), and Stevens (2003) to ensure advancement of their foundational works. Finally, this study provides clear quantitative and qualitative data analysis to demonstrate the relationship between the opinions of leaders concerning performance improvement behaviors and individual motives, personal attributes, individual skills and knowledge. The organizational behaviors that augment each of these elements are distinguished in table format and support research findings. They illustrate the findings in a descriptive way so that meaningful adaptation of the MASK model leadership assessment scorecard can be achieved.

**Roadmap to Findings**

The data gathering and analysis for findings in this study follow a deliberate roadmap. First, the chapter begins with a description of preliminary steps taken in the accomplishment of a pretest survey which serves to establish reliability of the primary survey instrument. A discussion on data preparation follows along with sections on
participation and response data. A discussion on respondent characteristics with individual question analysis is conducted prior to detailed MASK model question correlation analysis. After presenting the MASK model correlation analysis between the pretest and primary survey instruments, independent variable analysis is conducted followed by correlation test of hypotheses 1 through 4. Hypotheses test are followed by analysis of research questions and summation findings supported by data gathered in the study. Finally, the chapter concludes with supplementary findings and a summary of findings.

Synopsis of Research Problem and Purpose

Research Problem

The research problem that lies beneath this research is the inability of businesses to overcome the problem of not having a formal leadership assessment model, which identifies measurable personal leadership motives, attributes, skills and knowledge. Companies typically measure managers based on strategic objectives or business goals, which does not provide an assessment of the true capabilities of leaders. Because leaders are not assessed, business performance is not capitalized on.

Research Purpose

The purpose of this study is to empirically investigate whether there is a correlation between ten leadership performance improvement elements and forty MASK model leadership performance elements as indicators and predictors of future leader performance. In particular, emphasis is placed on leadership performance and the opinions of managers surveyed in this study to advance greater understanding of leader assessment and measurement. The overall purpose of the study is to promote the
progression of leadership performance assessment knowledge and to provide advancement of research linking the relationship between leadership performance and assessment of leaders.

**Alignment of Research Questions and Hypotheses**

In order to investigate the research problem there are three research questions and four research hypotheses associated with these questions. A brief synopsis is provided here to disseminate for readers a clear foundation for investigation of the root cause analysis of the research problem. This synopsis also draws attention to the theoretical foundation of this study. These questions and hypotheses and theoretical foundation are discussed with more detail in chapters 1 and 2 of this volume. The research questions pose exploration into a leader’s performance based on the leader’s beliefs concerning personal leadership, the relationship between measuring of leadership performance, and correlation of assessment of performance around the four MASK elements as predictors of future performance. The first question concerns beliefs of leaders based on traits they have obtained either through education, experience or a combination of both. Question one asks if beliefs about individual personal leadership traits affect leadership performance? This question employs a test for correlation of the MASK model sub-element variables for individual behaviors and leadership performance indicators. The correlation test of surveyed managers’ opinions concerning leadership performance elements with specific MASK elements provides data relevant to the absolute value of correlation coefficients indicating the strength of linear relationships among these variables. The first hypothesis conceives that the MASK model baseline sub-elements for individual behaviors positively relates to leadership performance. The survey instrument
is designed to gather data around a leader’s beliefs concerning MASK model leadership traits and leader performance improvement elements to clearly test this hypothesis. The second research question asks what the relationship is between measuring leadership performance on the BSC and improved leadership performance? This question speaks to the performance measurement as it relates to a leader’s performance. To this end, the hypothesis investigates the consideration that the personal BSC is a positive assessment device for capturing leadership performance. This question is designed to help define the BSC as a key tool in the assessment of a leader’s performance improvement. Questions in the performance improvement elements section and the MASK sub-elements sections of the survey instrument gather data for correlation of managers’ opinion concerning the BSC as a tool for performance assessment. The final research question explores what the correlation is between assessment of performance on the BSC and predictions about leadership performance? For this question two hypotheses were considered. The first hypothesis examines if achievement of organizational strategy goals are positively related to assessment of leadership performance. The second hypothesis investigates if higher level business education is positively related to leadership performance. These could be factors when making predictions concerning leadership potential or performance.

**Preliminary Steps**

**Pretest**

The pretest was accomplished over a two week period prior to the formal survey instrument being sent out. It was sent out to a randomly selected group of 50 managers from the aerospace, banking, manufacturing, public and non-profit sectors. The purpose of sending out the pretest survey was to establish the content reliability of the survey.
prior to administering the formal survey instrument to a larger group. It was important to ensure ambiguous questions were identified and the survey included only items respondents could answer. It was equally important to understand if each section of the survey was written in such a way that it maintained a single focus. By evaluating the methodology utilized to electronically administer the survey, and gathering data on the validity and reliability of the survey questions, a determination was made that the formal survey was ready for use in the MASK model study. The following paragraphs in this section provide a concise summary of the results of the pretest.

The pretest was sent out electronically via e-mail to 50 recipients. Overall, there were 19 surveys returned completed. After the first week of pretest survey administration, a reminder was sent out to all recipients who did not return surveys. The first week yielded 15 returned surveys. The second week of survey administration generated four more returned surveys. After compiling the surveys, the initial review of data indicated that all returned surveys were complete. There were no surveys that were received from respondents which were discarded because instructions were not followed. This indicated that the survey was well written and easy to follow. This detail is important because one of the principal reasons to administer the pretest was to evaluate the consistency of the data collection process since it was necessary to convert it to the primary survey. It validated an aspect of internal consistency and the reliability of the instrument. This internal consistency test is important because it verifies “the extent to which the items in a test are similar to one another in content” (Gay & Airasian, 2000, p. 171). The importance is significant because the study requires the stability of the scores of
respondents over a period of time and the equivalence between versions of the survey given at two different times and in different cultures.

Analysis from respondents indicated that the survey functioned as projected. There were not any major inconsistencies or unexpected problems encountered by respondents. As a result, no revisions to questions were made prior to administration of the primary survey instrument. The small sample size of the pretest survey allowed for some limited reliability analysis in the form of stability and equivalence methodologies to determine reliability on the individual sections of the survey. The results demonstrate that correlation of responses to individual questions were interpretable by respondents as many of the responses produced parallel outcomes. Group outcomes mimicked each other as anticipated. This validated the quality and clarity in which the questions were written. It also proofed the readability of the survey. This aspect of the survey was significant to the reliability of the survey as it would be administered to a larger a population as the primary survey.

In order to ascertain validity, nonparametric median testing to determine the difference in the medians of two independent groups was accomplished. Of the groups that were tested, there was very little change in medians of selected variables. In addition, a complete analysis of responses in terms of percent of alike responses was completed. The result demonstrated that 90% of the responses were alike or at least in the same range as other group responses. This analysis confirmed that within each section of the survey, responses were predictable. While the sample size was small, the results of testing provided confirmation of the survey instrument’s validity. In addition, no comments were made by any respondents in the accompanying comment areas on the survey. This
indicated that survey respondents found questions on the instrument straightforward and valid.

**Data Preparation**

As a result of having no changes to the primary survey instrument based on the pretest results, the primary survey was sent out within one week of receiving pretest responses. The primary survey data collection period was three weeks. Once the survey data was collected, preparatory data analysis steps were initiated to conduct scoring and data segregation. First, surveys were reviewed to ensure they were complete, with no missing data. There was one survey with missing data, which was then discarded so that all data analyzed would be complete. Second, the respondent surveys were sorted to ensure no survey respondents from the pretest survey were included into the final survey. Great care was taken to ensure primary surveys were not sent out to pretest respondents, however, since surveys were sent to some of the same non-respondent recipients as the pretest survey, this second sorting step was necessary. Third, the surveys were scanned for comments of respondents. Only one survey contained comments. The comments were technical in nature and did not add to or take away from the content validity of the survey. Comments were documented on the spreadsheet for reference purposes and the survey was discarded.

Fourth, each survey was reviewed and the demographic data was sorted and placed in a spreadsheet so that means and median testing along with basic demographic analysis could be conducted. Fifth, the responses were then coded based on Likert scale response. In all, two surveys were discarded through the data collection and preparation procedures. This number is low, but is compatible with pretest survey data and results. It
also falls in line with a realization rate proposed by Skalland (2011) where “undercoverage of the sampling frame is necessary to move beyond the response rate to a measure that can be computed accurately and consistently across sampling frames and modes” (p. 95). In all, the survey responses were straightforward and allowed for easy group segregation of data.

**Participation**

**Response Data**

As discussed in the methodology chapter of this study; a total of 250 surveys were sent out to participants for the pretest and primary surveys. The participants were selected from a list of 380 managers by casting a die and selecting the next manager in order based on the number on the die. For example, if the die landed on two, then the second manager on the participant list was selected. If the next cast of the die landed on six, then the next manager, six down on the list was selected. This process continued until 50 participants were selected on the pretest survey and 120 for the primary survey. Once it was determined that 80 more surveys were required for the primary survey, then this random selection process was again followed until the required number of participants were selected. The pre-survey response rate was anticipated to be up to 50% based on preparatory steps to obtain informed consent and because of follow up planning outlined in chapter three of this study. In addition, the survey was designed to be participatory and not obligatory so higher rates of return were not expected. Anseel, Lievens, Schollaert and Choragwicka (2010) indicate that “response rates for personally distributed surveys to managerial respondents using a 90% personally distributed methodology could expect an 87% response rate” (p. 342). This survey met the requirements of a personally
distributed survey to management recipients; however, this survey was not intended as a blind survey where participants were not aware they were to receive a survey. The pre-survey informed consent procedure placed a restriction on participants in that it required their pre-survey participation in signing informed consent, therefore, recipients understood that they would receive a survey. The primary survey was initially sent to 120 participants and it produced 35 respondents, a rate of return of 29%. Despite this preparatory step, of informed consent, the response rate on both the pretest survey and the primary survey was lower than initially anticipated. This prompted reminders to potential respondents and additional surveys to be sent out.

After the first week of survey administration, a reminder was sent out to potential respondents to return the survey. This step was also accomplished after the second week. After the first ten days of survey administration, a second e-mailing of surveys was sent out to 80 more recipients. Overall, 200 surveys were sent out to potential respondents. A total of 54 respondents returned surveys. The formal survey return rate was 30%. After discarding two surveys for extraneous comments and incomplete data, the total information analyzed for the study comprised 52 surveys, 29% of all distributed surveys. This percentage was not initially satisfactory because it was unclear if enough respondents had come from the five management groups of recipients the study was intended to survey. However, preliminary analysis indicated that all five population groups were represented in the responses. This information is important to the study because it investigates comparisons of managers in different managerial and organizational settings. Sending the survey to entire organizations for sampling was not necessary to fit this test. In addition, Gay & Airasian (2000) point out that “the sample
size for a correlational study using an acceptable sampling method, and 30 participants are generally considered to be a minimally acceptable sample size” (p. 322). Therefore, sampling of demographic characteristics data is more important to draw conclusions in this study considering the assumption that the majority of the correlational relationships of variables are linear. This is where “when plotting a relationship of two variables will result in a straight line” (Gay & Airasian, 2000, p. 330). While demographic data was limited to only five questions, it provided enough data to analyze the population of the study. Further, demographics data gathered in the study was adequate and provided confidence that the size of the research samples were sufficient.

**Respondent Characteristics**

This study was designed as a sampling of managers from five different organizations and business sectors. The organizations and sectors sampled were non-profit, public, private, manufacturing and banking. The businesses in each sector included a large religious based community organization (non-profit sector), a defense department depot organization (public sector), a university health organization (private sector), an aircraft manufacturing company (private sector), and a banking business (private sector). The aircraft manufacturing company was the largest organization sampled and has many locations. However, only two of the locations were sampled, one in San Antonio, Texas, and the other in Philadelphia, Pennsylvania. The non-profit organization, and the university health organization are located in San Antonio, Texas. The banking organization has many global branches; the samples in this business were taken from a bank in San Antonio, Texas. These business sectors and organizations were chosen as
target populations in order to validate that the LABSC was universally applicable in many different business setting, cultures, and operating environments.

The organizational missions, and the contrasts in business environments, were important elements of this study because the assessment model which is produced from this study contains managers at different stages in their careers and at various experience levels. The survey respondents come from diverse cultural, economic, and educational backgrounds. By selecting two geographical areas that are fundamentally different, the assurance of obtaining samples from respondents who are culturally diverse in terms of race and ethnicity is greater. The purpose of gaining empirical research data from these populations is to advance a clear understanding of assessment of management in different cultures. This directly aligns with hypothesis three which proposes that the personal BSC is a positive assessment device for capturing leadership performance. A clear theoretical understanding of the cultural differences between managers assists in categorization of personal attributes and correlation to other surveyed attribute data.

There were five demographics questions asked of each respondent. For this study, the level of management, the length of time as a manager, the time of experience in the manager’s current position and business sector were required for analysis. In addition, the level of education was considered necessary to investigate hypothesis two which is related to positive performance in relationship to higher education level. It was also required to complete correlation analysis for questions 33 and 42 of the primary survey. The exhibit table in Table 1 demonstrates the results of the demographics questions and categorizes the population breakout. The mean for first line managers participation in the survey was similar to that of the pretest survey. The mean for those with higher education
levels was similar among respondents in both surveys. The mean is 27.5 for those with associates degrees, and 21.5 for those with bachelors’ degrees. Other significant demographics data obtained from the survey was a mean of 89.5 of all respondents working in the private sector. In addition, of those without university degrees, 15.5 percent have some form of vocational education, generally, these respondents were from the manufacturing sector. Finally, only one respondent from the non-profit sector held a degree. Admittedly, this result was not expected, however, it did not limit or negatively impact the study’s findings.

Table 1

*Population Demographics*

<table>
<thead>
<tr>
<th>Demographics Questions</th>
<th>Survey</th>
<th>Survey Responses</th>
<th>Percent of Population</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Level of Management</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pretest</td>
<td>16</td>
<td>2</td>
<td>84</td>
</tr>
<tr>
<td>Primary</td>
<td>45</td>
<td>5</td>
<td>87</td>
</tr>
<tr>
<td><strong>Manager Experience in Years</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pretest</td>
<td>6</td>
<td>4</td>
<td>32</td>
</tr>
<tr>
<td>Primary</td>
<td>14</td>
<td>9</td>
<td>27</td>
</tr>
<tr>
<td><strong>Length in Current Position</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pretest</td>
<td>13</td>
<td>1</td>
<td>68</td>
</tr>
<tr>
<td>Primary</td>
<td>40</td>
<td>2</td>
<td>77</td>
</tr>
<tr>
<td><strong>Highest Degree Earned</strong></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Pretest</td>
<td>6</td>
<td>2</td>
<td>32</td>
</tr>
<tr>
<td>Primary</td>
<td>12</td>
<td>5</td>
<td>23</td>
</tr>
<tr>
<td><strong>Vocational Education</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pretest</td>
<td>3</td>
<td>5</td>
<td>16</td>
</tr>
<tr>
<td>Primary</td>
<td>8</td>
<td>13</td>
<td>15</td>
</tr>
<tr>
<td><strong>Business Sector</strong></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Pretest</td>
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<td>1</td>
<td>89</td>
</tr>
<tr>
<td>Primary</td>
<td>47</td>
<td>3</td>
<td>90</td>
</tr>
</tbody>
</table>
Individual Question Analysis

MASK Model Question Correlations

The formal survey found in Appendix B of this study contained 50 questions broken into five separate sections. Each section contained ten questions and addressed a single focus. For example, section one of the survey asked the respondents to focus on what motivated them? Using a Likert scale for each reply, the respondents could select between one of four responses of disagree, strongly disagree, agree and strongly agree per question. The sections consisted of interval data, appropriate for coefficient testing to determine relationships such as the Pearson $r$. Sections 1-4 consisted of the MASK elements of motivations, attributes, skills, and knowledge. Section five asked questions concerning leadership performance behaviors. Once all responses were received each question was examined to determine if parametric testing for probability distribution of means was appropriate. As with the pretest survey, the primary survey respondents were grouped for correlation analysis. In all, the primary survey yielded four groups of 13 respondents. The pretest survey had yielded two groups, one group with 10 respondents and the second group with 9 respondents. After coding the responses from the pre-test and primary test in each MASK element section, analysis for significant difference was conducted among the section groups. As summarized in Table 2, this analysis consisted of a comparison of the means of each section by group means and population differences. Table 2 demonstrates the group means, and population means differentiation for each surveyed question on the Likert scale in each section.
The means testing demonstrated that there were no distinctive differences between the means of each question group between each survey. The pretest and primary survey means were identical. This is because each of the MASK element sections of the survey contained exactly 10 questions. The difference in the groups was the actual percentages each response on the Likert scale received by respondents. The findings indicated that while the primary survey had 34 more respondents than the pretest survey, the distribution comparison between each of the survey groups indicate a normal distribution of both positive and negative response scores. However, the positive responses accounted for 95 percent of all respondents scores.

Table 2

*Pretest Verses Primary Survey Means Differences*

<table>
<thead>
<tr>
<th>Questions per Section</th>
<th>Motivations</th>
<th>Attributes</th>
<th>Skills</th>
<th>Knowledge</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pretest Survey</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Primary Survey</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>AG</td>
<td>A</td>
<td>SD</td>
<td>D</td>
</tr>
<tr>
<td>Pretest Survey</td>
<td>13.5</td>
<td>34.1</td>
<td>1.37</td>
<td>1.1</td>
</tr>
<tr>
<td>Primary Survey</td>
<td>8.5</td>
<td>39</td>
<td>0.77</td>
<td>1.7</td>
</tr>
<tr>
<td>Standard Deviation</td>
<td>3.53553391</td>
<td>3.4648232</td>
<td>0.4242641</td>
<td>0.424264069</td>
</tr>
</tbody>
</table>

**Correlation Analysis**

Two different Pearson $r$ correlation coefficient tests were conducted in this study. First, the four respondent groups sorted in the primary survey were correlated for positive and negative scores. For all survey questions, positive and negative scores were
correlated against each other to ascertain which had the highest related scores. This data was used to determine rank order of relationships among scores. For example, groups 1-2 in the motivations section were correlated against each other separately. This correlation analysis was conducted for all sections of the survey and among all four primary survey groups. The strength of the relationships was important to determine for three reasons. First, to understand which questions on the survey were viewed as the strongest by respondents. Second, to predict how certain questions in sections 1-4 of the survey might correlate to performance improvement scores in section five of the survey. Third, to project which MASK model sub-elements were the strongest indicators of performance for assessment purposes. These ranks are demonstrated in the appendix section of this study. The second correlation of scores was to conduct the primary purpose of the study and consisted of correlation of leadership performance improvement elements in section five of the survey to MASK sub-elements in the first four sections of the survey. This correlation served as the basis of findings in this study and assisted in shoring up pre-study assumptions.

One assumption of this study is that there is likely a correlation between a managers performance and each variable contained within elements of the MASK model. To demonstrate this correlation, the Pearson $r$ analysis was required to indicate how highly correlated the variables were that influence performance. The Pearson $r$ best serves this analysis because it is a measure of correlation of the relationship or association of two variables. The Pearson $r$ is appropriate because it provides an accurate association between variables from -1 to 1. The Pearson $r$ allows for precise predictions of relationship of the variables. The analysis in this study measured the extent to which
the MASK element variables were correlated to leader performance element data through absolute value interval data. Correlation analysis was conducted for hypothesis testing and then at the individual question level to answer research questions and help validate MASK elements. This correlation of coefficient data was then applied as the framework data for the LABSC model which is discussed in more detail in chapter five of this study. The results of the correlation analysis is found in table 1.1 and in other tables, in this study.

**Independent Variable Analysis**

**Correlation Tests of Hypotheses 1 Through 4**

The ensuing sections discuss the tests conducted for hypotheses 1-4. In order to determine if the hypotheses are supported, a Pearson $r$ correlation analysis was conducted to conclude if each of the four hypotheses are relationally supported by specific responses from the survey instrument. Each hypothesis is correlated in order to help determine individual predictions. To conclude the relationship of responses for strongly agree, agree, strongly disagree and disagree each of the hypothesis correlation analysis findings are expressed as a coefficient ratio indicated in tables 2-5 in the following sections.

**Hypothesis 1**

Hypothesis 1 states that The MASK Model baselines for individual behaviors positively relates to leadership performance. This hypothesis is directly addressed in the primary survey questions 44, 45 and 50. These questions found in the leadership performance improvement section of the survey were correlated to MASK model sub-elements found in questions 10, 17 and 25. The Pearson $r$ correlation conducted for this hypotheses indicates that the MASK model elements positively relates to leadership
performance. All four hypotheses tested had at least a -.90 correlation coefficient, this hypothesis specifically had a -.92 r correlation coefficient. Gay & Airasian (2000), specifically address this correlation stating, “a researcher would be very happy with observer reliabilities in the .90s, satisfied with the .80s, minimally accepting of the .70s, and would be progressively more unhappy with the .60s” (p. 324). The relationship between all positive responses and all negative responses indicate that no relationship exists because the correlation coefficients are .007 or virtually non-existent. This hypothesis can be accepted as having a strong relationship of MASK model baseline behaviors to leadership performance.

Table 3

_Hypothesis 1 Correlation Analysis_

<table>
<thead>
<tr>
<th>Questions</th>
<th>SA</th>
<th>A</th>
<th>SD</th>
<th>D</th>
<th>Correlation Analysis</th>
<th>r</th>
</tr>
</thead>
<tbody>
<tr>
<td>44</td>
<td>3</td>
<td>10</td>
<td>0</td>
<td>0</td>
<td>All Positive to Neg Responses</td>
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<tr>
<td>5</td>
<td>8</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>SA to A Correlation</td>
<td>-0.921888418</td>
</tr>
<tr>
<td>4</td>
<td>9</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>SD to D</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>0</td>
<td>13</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>45</td>
<td>5</td>
<td>5</td>
<td>0</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
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<td>0</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>10</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>12</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>50</td>
<td>2</td>
<td>11</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>11</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>9</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>0</td>
<td>13</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Totals</td>
<td>32</td>
<td>117</td>
<td>1</td>
<td>6</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Hypothesis 2

Hypothesis 2 states that higher level business education is positively related to leadership performance. This hypothesis directly relates to questions 33 and 42 in the study. This question had interesting results. When ranking correlation was conducted there was a high negative correlation at a -.90 coefficient, there is no relationship between positive responses and negative responses. When correlation testing was conducted with MASK model elements and leadership performance improvement elements the results had a positive correlation. According to Gay and Airasian (2000), “in a study designed to explore or test hypothesized relationships, a correlation coefficient is interpreted in terms of its statistical significance” (p. 326). This point is important in the case of this hypothesis and the others in this study because of the high positive correlation which provides confidence in the predicting a conclusion of a significant relationship in high level business education and leadership performance. This hypothesis can therefore be accepted. Of the respondents in this study, 59 percent held high education degrees while 15 percent of all respondents had vocational education training. Overall, the majority of all managers surveyed in this study had some form of higher education. This data alone suggests that higher education plays a significant role in leadership positions and adds credibility to the outcome of the correlation analysis for this hypothesis.
Hypothesis 3

Hypothesis 3 states that the personal BSC is a positive assessment device for capturing leadership performance. This hypothesis is directly related to survey questions 47, 48 and 49. It initially appeared possible that this hypothesis could be rejected based on the possibility of low correlation coefficients. This is because there were more negative responses than with other hypotheses tested. However, while all the correlation coefficients tested were in the negative range, a high level of correlation of -.90 establishes a very high relationship exists. The positive responses to negative response coefficients are -.38 demonstrating a low negative non relationship. This finding supports acceptance of this hypothesis. If plotted, the high negative relationship would indicate a linear pattern.
Hypothesis 4

Hypothesis 4 states that achievement of organizational strategy goals is positively related to assessment of leadership performance. This hypothesis is directly corresponding to questions 21, 22, 24 and 41 of the primary survey. Testing of this hypothesis as shown in table 6 indicates that this hypothesis should be accepted. The table demonstrates a very high relationship coefficient of -0.94. This suggests a strong high correlation of positive responses to negative responses. The relationship of negative response variables in this test indicates virtually no relationship exists, therefore this hypothesis can be accepted as having a high relationship of organizational strategy goals and assessment of leadership performance. Gay and Airasian (2000) indicate that “what a
correlation coefficient means is difficult to explain. However, one thing it does not indicate is the percentage of relationship between variables” (p. 324). In the case of this hypothesis and others tested in this study, it is clear that there is a relationship to the MASK model elements and leadership performance.

Table 6

*Hypothesis 4 Correlation Analysis*

<table>
<thead>
<tr>
<th>Questions</th>
<th>SA</th>
<th>A</th>
<th>SD</th>
<th>D</th>
<th>Correlation Analysis</th>
<th>r</th>
</tr>
</thead>
<tbody>
<tr>
<td>21</td>
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<td>12</td>
<td>0</td>
<td>0</td>
<td>All Positive to Neg Responses</td>
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<tr>
<td>3</td>
<td>10</td>
<td>0</td>
<td>0</td>
<td></td>
<td>SA to A Correlation</td>
<td>-0.946212236</td>
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<tr>
<td>1</td>
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<td>13</td>
<td>0</td>
<td>0</td>
<td>SD to D</td>
<td>0</td>
</tr>
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<td></td>
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<tr>
<td>4</td>
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</tbody>
</table>
Analysis of Research Questions

The study is designed to answer three specific research questions. These three questions are directly related to the hypothesis testing results and correlation analysis of MASK elements. Additionally, analysis of the three research questions provides data concerning assessment of leadership performance variables. Typical results of data gathered from respondents indicated overwhelming positive views of variables related to research questions. Based on managers’ negative responses, there was only a 0.05 percentage of responses that did not support conclusion interpretations across all variables employed in the study. Further, the intentional relationship of the variables established in the study consistently fit a pattern which indicated respondents interpreted as non-problematic to understand.

Question One

Do beliefs about individual personal relationship traits affect leadership performance?

This question is related to hypothesis one which has a high positive correlation relationship to individual behaviors and leadership performance. It is also impacted by each element section of the MASK model which contains specific behaviors related to personal relationship traits.

Motivations

Three survey questions in the motivations section address individual personal relationship traits that affect leadership performance. Respondents did not provide any negative responses to these questions. Only positive responses were recorded by
managers taking the survey. This indicates that respondents beliefs about individual personal relationship traits affect or contribute to leadership performance. Considering all responses were positive, it is clear that respondents are motivated by individual personal leadership traits. In order to provide distinction among motivators respondents were asked to score 10 motivators that influenced their performance. These ten questions were categorized into individual and organizational motivators. Three questions in the survey specifically provided instances which narrowly focused on interactions with others.

When asked if they were motivated by other leaders, respondents provided 88 percent (46 of 52) positive responses. When asked if they were motivated by working in a teaming environment respondents provided 100 percent (52 of 52) positive responses. Finally, 100 percent of respondents positively indicated that they were motivated by high customer satisfaction. These three examples were typical of responses for all ten motivators in the survey.

The motivations section of the study assessed what motivated managers. The intent is to determine how these motivators affect leadership performance. Providing a formal assessment of each managers motives and recording them using a balanced scorecard provides organizations and the individual manager with a performance indicator which is useful to the organization. Providing the respondents’ survey data confirming managers are motivated by their own self-confidence, leadership maturity and by high expectations it follows that positive leadership performance could be achieved.

The respondents provided ample data to positively affirm research question one. Detailed analysis of the responses for each question in the motivation section provided positive correlations for each question. The distribution of responses in the motivations’ section of
the survey was normal and clearly emphasized the need to include each of the independent motivators in the leadership assessment model established post of this study.

Attributes

As with the motivations’ section of the survey, responses were positive to the three questions in this section which addressed personal leadership traits. However, questions 12 and 18 had negative responses which required correlation analysis. The Pearson $r$ correlation coefficient for each of the questions were a perfect 1.0 which indicate that if plotted, all points on the scatter plot would fall within a straight line. This test coefficient indicated no correlation. Conversely, questions 12 and 18 ask respondents about communication and empathy which are both important attributes which are key to personal relationships required by leaders. When addressing the negative responses out of the total population of responses in the attributes section, only 0.04 percent of the responses were negative. Attributes such as having a strong work ethic, being responsible and demonstrating self-confidence had all positive responses and no negative responses. Interestingly, other questions in the attributes section of the survey which were not directly linked to research question one provided positive results similar to those in the motivations section of the survey.

Questions in the attributes section were categorized by experience or personal attributes. Based on the total amount of positive results obtained from respondents in both category sections of the survey, it can be inferred that question one is affirmed in the attributes section of the survey. The results suggests that these personal attributes are required by leaders in organizations and that individual relationship attributes affect leadership performance. The attributes identified and analyzed in this study are consistent
across all five organizations. Each provide standard elements for assessment of leaders in
global organizations. According to Liedtka, Church and Ray (2008) “academic research
identifies situational factors that influence whether evaluators fully consider each BSC
performance measure and make performance evaluation judgments consistent with their
organizations’ global strategies and goals” (p. 74). The results indicate that the ten
attributes surveyed in the study provide adequate assessment elements that should be
included in leadership assessment performance criteria for evaluators. In addition to
affirming a positive correlation analysis result for research question one of the study, this
section point out that personal attributes are important variables for assessment of
leadership performance.

Skills

Correlations for the three questions in this section were positive. Question 30
which relates to the ability to take advantage of cultural diversity, indicated more
negative responses than any other question in the section. When tested for a correlation,
the coefficient was 1.0 suggesting the negative responses have no relationship.
Considering that low numbers of negative responses came from this section of the survey
it is important to understand which questions were more valuable to organizations. All
questions in this section of the survey were categorized into day-to-day operational skills
and global business skills. Within each of these categories, managers scored the first six
questions with all positive responses. In the category of day-to-day business skills,
respondents indicated that being a good decision maker and being guided by manager
experience were the most important skills required. Each of these questions had no
negative responses. In the category of global business skills, respondents recorded the
ability to interpret business strategy, execute strategy, develop strategy and the ability to set direction were the most important skills they required.

**Knowledge**

The questions aligning with this section were like those in the previous sections, nearly all had positive correlations. While correlation analysis was conducted for each question, only one returned a ratio of 1.0, the rest were 0. Knowledge questions were categorized into business environment knowledge and social environment knowledge. Each of these categories had a preponderance of questions answered positively. However, it was evident that business environment knowledge was more central to respondents than social environment knowledge. This could be because many of the managers surveyed were more experienced and lends to generational differences. Understanding the business model, understanding customer needs and formal education in the business field were all important to respondents. These were all in the business environment knowledge category and were scored 100 percent positive by respondents. In the area of social environment knowledge, managers indicated that understanding multi-cultural team dynamics and understanding teaming concepts were most important to them. The respondent managers positively responded to the questions but the social environment knowledge was ranked fourth among all ten questions. This signifies that managers believe that business environment knowledge is somewhat more important to their success than social knowledge. The significant analysis from this section of the study was the knowledge managers considered as least important of all knowledge from either category. Respondents implied through their responses that comprehending business sustainability practices and understanding environmental impacts of the business as
positive, but they were both last within their perspective categories. It is likely that each of these areas are least understood by managers and they recorded surveys to reflect their knowledge in these areas. Overall, this section reflects beliefs about how individual personal relationship traits affect leadership performance and affirms research question one in this study.

**Question Summary**

Overall, all of the data gathered through responses related to this research question totaled 624 responses, of which 23 received negative responses. Given the overwhelming evidence that respondents did not point out any discernible issues with the question and all of the MASK elements correlated positively, it makes sense to integrate all of these questions into the LABSC. The extent of analysis results of research question one is expressed in table 7 below.
Table 7

Research Question Analysis

<table>
<thead>
<tr>
<th>Question 1</th>
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</table>

**Question Two**

This question asks what is the relationship between measuring leadership performance on the BSC and improved leadership performance?

This question had similar results as research question 1 had. The total number of responses for this research question was 624 of which 34 were negative responses. The most notable negative responses came from questions 13 (Attributes), 38 and 40 (Knowledge). These negative responses accounted for 79% of negative responses derived from this research question. These questions addressed global mindset, diversity and
sustainability. All of these areas are important to measurement of future leaders, as they must understand the impact of each area to their business strategy and objectives. Woods and Grubnic (2008) suggests that “lower down the hierarchy, requiring managers to think about how they might contribute to the corporate plan and including continuous improvement within all of the scorecards helps encourage staff involvement and refocus the culture towards performance improvements” (p. 357). This point directly states why it is important to assessment managers in these emerging areas.

Looking at the larger representation of scores for each of the negative areas, this researcher foresees that misunderstanding of the areas accounts for a majority the negative responses. Considering the lowest score was -1, then a perfect correlation exists in all areas measured for this research question. Given the overwhelming evidence that respondents did not point out any discernible issues with the question and all of the MASK elements correlated positively, all of these questions will be integrated into the LABSC.

**Question Three**

This question asks what is the correlation between assessment of performance on the BSC and predictions about leadership performance? This research question directly aligned to 832 responses in the primary survey. Of these responses, 41 were negative. However, Pearson r correlation coefficients demonstrated linear relations existed in all variables tested. The majority of negative responses came from questions 3 (Motivations), 27 (Skills), 39 (Knowledge). Question 39 discusses knowledge of environmental issues, just as with research question two, this researcher foresees that misunderstanding of the areas accounts for a majority the negative responses. As with the
previous two research questions, all of the MASK elements correlated positively, all of these questions will be integrated into the LABSC.

Table 8

*Research Question Analysis*

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Comparison to other Studies

This study is unique as compared and contrasted to foundational studies with the same or similar content. As previously mentioned in this study’s literature review, Kaplan and Norton’s (1992) BSC study subsequent studies all forwarded knowledge and foundation of the BSC model. Other studies such as Woods, and Grubnic (2008) linked comprehensive performance assessment to the balanced scorecard. They primarily focused on the existing BSC elements but did not assess managers’ performance as this
study has. In addition, Stevens (2003) developed the MIFV model utilizing the MASK elements. This findings from this study advances the MASK model and validates Stevens research indicating that there is positive correlation to managers’ performance and the MASK model elements. No other studies demonstrate these positive relationship correlations. This makes this study’s findings unique to performance assessment sub-elements which affect a leader’s performance. In addition, analysis from this study provides the framework to expand leadership knowledge. For example, analysis conducted on a leader’s motivation reveals that managers are motivated by other leaders. However, other leaders were ranked last among all other motivators with high job satisfaction being first among respondent motivators. While other studies do not discuss analysis on this topic, it is valuable that this study identify this motivator because it could indicate that organizations should focus on model leadership as a core organizational value to improve organizational motivation.

**Supplementary Findings**

The LABSC produced as a product of this study has the potential to assist companies by providing assessment capabilities of managers at all levels. It capitalizes on the capabilities of the BSC as a measurement system and provides flexibility for organizational continuous improvement. The findings of this study has significant and unexpected outcomes, such as negative correlations in emerging areas such as the environment, sustainability and in several personal attribute areas such as managers having a global mindset. These areas are all important for managers in global organizations today. Managers must understand the impact of sustainability and environmental systems in order to perform as leaders in their organizations. In addition,
the findings validated the primary survey instrument in its entirety which is the fundamental foundational data and document used in the development of the master LABSC assessment template. The LABSC encompasses all of the MASK elements and aligns them to specific performance measures for improved manager performance. Essentially, the LABSC assessment is the tool that provides the capability to assess managers’ performance with enough flexible to support manager differentiation and continuous performance improvement.

This study tested for correlation of relationships and the validation of intangibles such as management performance and if managers understood leadership strategy. Each of the MASK elements were categorized into two specific areas within each element. In the element area of skills for example, five element variables were categorized as day-to-day operational skills and five were categorized as global business skills. These specific skills are required by managers to meet demanding business environments today. All four MASK elements were distinguished in this same way. Respondent managers in this study exacted which of these elements were the most important to leadership performance.

New study or expanded study should encompass performance measurement systems for four specific areas which respondents indicated a lack of leadership knowledge, skills and personal attributes toward. The areas of having a global mindset, understanding and possessing skills in cultural diversity, comprehending sustainability practices and understanding environmental impact of their business or decisions all were recorded the most negative by respondents. For example, having a global mindset was significant as 23 percent of respondents in each sub-group had negative responses. This was similar to results recorded by respondents in the pre-test at 26 percent.
Understanding diversity and other cultures received 19 percent negative scoring. These results indicate that a lack of understanding and a lack of orientation exists in these areas. It is evident that global business training and skill development is essential for managers to perform and make informed decisions in the aforementioned areas.

**Summary**

This chapter provides the analysis and findings carried out in this study. The chapter commenced with an outline of the preliminary steps taken to conduct the pretest and primary survey analysis. These steps included data and analysis preparation, respondent characteristics and the level or correlation analysis and comparative analysis of variables. Furthermore, the chapter discussed internal consistency and the relationship of leadership behaviors to the MASK model dependent variables. The steps taken to complete the correlation testing of dependent and independent variables analysis assists with tests of hypotheses 1 through 4. All four hypotheses were supported and accepted through Pearson $r$ correlation relationship testing. All research questions demonstrate high correlation coefficients and no research question demonstrated anything but strong relationships. The testing and findings from this study validated the variables and questions from the primary survey for application as the framework of the LABSC.

The LABSC survey findings advances a principle measurement model which captures current or potential leaders’ performance. It is best applied in organizations that are strategically focused. This study provides advancement of a focused MASK model which is forward-looking, and provides assessment sub-elements describing leadership characteristics. The findings of this study can be concisely summarized as a more
comprehensive view of a potential leader’s overall capabilities. It establishes relationship correlations of a leader’s competency level where other assessment tools do not.
Chapter V: Conclusion, Discussion and Implications

**Introduction**

The first part of this study explained in great detail through academic literature the dilemma which many companies face when attempting to select and develop leaders. Many companies invest in skill development of existing managers and often in leadership training for employees that demonstrate leadership potential. The cost associated with selecting the right manager or getting the proper training for existing managers is enormous. Risk is also a factor when selecting a manager in an organization because there is not a formal blueprint which accurately assesses the managers’ capabilities in terms of their motivations, attributes, skills or knowledge. This leaves organizations at risk when selecting leaders. In actuality, every manager brings with them their own unique set of motivations, attributes, skills and knowledge which they have obtained through experience, training, education, and business relationships. Stevens (2003) successfully demonstrated through empirical research that the Motivations-Attributes-Skills-Knowledge (MASK) elements are ideal for use in performance measuring systems. While Stevens used these elements to develop the MASK Competency Cluster Validation Model (MIFV), he opened the door to advance research of these elements into other performance measuring systems.
Synopsis of Research Problem and Purpose

Research Problem and Purpose

As stated in Chapter IV of this study the research problem is the inability of businesses to overcome the problem of not having a formal leadership assessment model, that identifies measurable personal leadership motives, personal attributes, skills and knowledge. Typically, companies measure managers based on business strategic objectives or business goals. Generally, companies will have some type of annual performance evaluation which is highly subjective and does not differentiate performance among managers. This does not provide an appropriate assessment of the managers’ capabilities. The purpose of this study is to empirically investigate the correlation of leadership performance indicators that serve as predictors of future leader performance. Emphasis is placed on leadership performance assessment and measurement. There is a lack of research linking the relationship between leadership performance and assessment of leaders.

Summary of Findings

One primary distinction between Kaplan and Norton’s original BSC model and the LABSC is intent of what they measure. The original BSC measured businesses around the four key elements of customer, financial, innovation and internal business perspectives. The LABSC does not measure business performance but rather the managers’ performance on an individual basis around the key elements of the managers’ motivations, attributes, skills and knowledge. While both the BSC and LABSC have the objective to continuously improve the business performance, the approach is significantly different. The correlation analysis in this study clearly demonstrates that each of the
MASK elements provide the correct evaluation of performance. Every element has sub-elements that are flexible, fitting each organization and business environment. When correlated with leadership improvement elements, a leader’s opinion concerning the motives, personal attributes, skill set and knowledge requirements become clear. Assessment of these individual sub-elements is important to establish which behaviors drive performance of managers in organizations. Within the context of measuring individual performance, respondents differentiate the exact MASK sub-elements that clearly demonstrate ranking of those which are closely aligns to leadership performance.

As correlation testing demonstrated, measuring managers’ opinions concerning what they believe is required for managers’ helps to establish a new approach to leadership assessment. Correlation testing results outlined in Table 10 below suggests that merging of the BSC and MASK models are appropriate. Testing revealed that each sub-element under the MASK model primary element and sub-elements under the leadership performance improvement primary element correlated to a 1. These correlations are very strong indicators of the linear relationships which align all of these sub-elements. Considering the positive strength of these relationships, it follows that each of these variables have maximum correlation to each other. This fact is important to forming a new assessment model. The LABSC takes advantage of the magnitude of these correlation strengths by assessing a leader’s performance utilizing these sub-elements. The motives, attributes, skills and knowledge sections below outline specific conclusions, discussion and implications of the findings.
[mask and leadership improvement element correlations](#)  

<table>
<thead>
<tr>
<th>Performance Improvement Elements</th>
<th>Performance Improvement Elements Y Mean</th>
<th>Performance Improvement Elements Y Sum</th>
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<tr>
<td><strong>Motivators X Mean</strong></td>
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<td><strong>Skills X Mean</strong></td>
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<td>High Job Satisfaction</td>
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<td>Guided by Manager Experience</td>
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Note: X correlations consists of MASK sub-elements taken from four groups of positive scores in primary survey instrument. (Motivations questions 1-10, Attributes questions 11-20, Skills questions 21-30, Knowledge questions 31-40). Y correlations consist of Leadership Performance Improvement Behaviors taken from four groups of positive scores in primary survey instrument (Questions 41-50).
Motivations

The ten motivation sub-elements consist of motivators which respondents confirmed motivated them toward organizational strategic objectives and their own personal objectives. Managers positively confirmed they were motivated by meeting stakeholder expectations, working in a competitive environment, and working in a teaming environment. They also established that they are motivated by high customer satisfaction and high job satisfaction. These are all motivators related to organizational strategies or objectives. Of these motivators, high job satisfaction ranked the highest, indicating that it is a core element that managers find important to their leadership performance. In a 2010 research study, Burney and Swanson demonstrated that there were higher levels of job satisfaction when managers also report stronger strategic links. Burney and Swanson’s study strengthens the measurement of the MASK sub-element on the BSC. Job satisfaction is a motivator that is often viewed as a business strategic objective that many companies pursue in order for them to maintain a competitive advantage.

In addition to job satisfaction, a high positive correlation exists in working in a teaming environment. This positive correlation is possibly an indicator of why job satisfaction is rated so high. Rampersad (2008), indicates that “Gallup statistics show that unhappy workers cost the American business economy up to $350 billion annually in lost productivity and that earnings per share increase 2.6 times more if employees are engaged” (p. 43). Considering the high emphasis respondents in this study placed on selected job satisfaction, it follows that it is the chief contributing factor to manager engagement and leadership performance. As with Rampersad’s argument, the findings
from this study provide ample evidence of a strong correlation of job satisfaction to leadership performance. Since job satisfaction and working in a teaming environment correlate as top level motivators, placing emphasis on them, and assessing them is vitally important to organizations working towards improving leadership performance.

In measuring personal motivators within the category of organizational motivators that drives individual self-interest, respondents identified self-confidence as the motivator which rated the highest by respondents. Appendix E discernibly demonstrates that high job satisfaction and leaders’ self-confidence have the highest rankings among respondent managers in each category of motivators. Of all of the motivators in the two motivator categories, organizational motivators, which includes job satisfaction, working in a teaming environment and high customer satisfaction are rated in the top five of all motivators. As an important component of leadership performance, assessment of these motivators provides on-going feedback to managers and organizational leaders to continually improve the business culture and performance.

Finally, the results of this study conclude that the ten motivators surveyed are all important to leaders. They are obviously not the only motivators that provokes managers to act in positive and responsible ways. However, the high correlation to performance indicates that these are highly valued by leaders. The implication of this study in terms of leadership performance is the expansion of available literature concerning motivators to leadership performance. This study advances the MASK model in this area based on survey responses by an all manager population from several business sectors. Because of all manager responses, real world motivators are identified and provides exact
performance assessment measurement criteria. In addition, the study’s findings provide a useful framework for manager feedback.

Attributes

Steers, Sanchez-Runde and Norton (2012) noted that “in a 2004 comprehensive leadership behavior study, researchers identified 22 leadership attributes that were widely seen as being universally applicable across cultures” (p. 425). Some of the same attributes identified and sampled in this study were also analyzed for the 2004 study with similar results such as values and character. Interestingly, similar to Stevens (2003) study, which indicated that the attribute level expands upon the motivational aspects of the MIFV in that it “brings value-added aspects to a culture and work environment” (p. 82). The results of this study also suggests that personal attributes bring value to the other elements of the MASK model because they provided the necessary linkage to performance. For example, managers responded positively when asked concerning their beliefs about what it takes to be a leader and what affects their performance as a leader (Question 46)? In the attributes section, respondents positively scored attributes associated with beliefs such as values, character, principles, responsibility, empathy, maturity and self-confidence. Further, they also correspondingly scored motivators such as leadership maturity and setting goals, skills of being able to set direction and knowledge such as understanding diversity as contributors to leadership performance.

Attributes are broken into two groups, personal and experience attributes. The personal attributes serve as foundational guides to the leader’s performance such as a strong work ethic, values, moral character and principles. These attributes are core beliefs unique to each leader and are established well before many of the experience attributes
are developed. The experience attributes are gained through multiple experiences over time and guide the leader’s decision making day-to-day. The descriptive correlations in this study indicate that a significant relationship exists between managers’ personal and experience attributes and that these may even be expanded to include others.

Skills

In this study skills represent the actual tools and abilities the manager brings to the business or organization. Skills in this study are broken into two groups, day-to-day operational skills and global business skills. Both of these groups capture skills that are distinctive to manager leadership performance. Day-to-day operational skills are skills that leaders utilize in daily execution of their jobs which directly facilitate execution of daily events. These skills are basic to a manager’s role and must be evident to ensure success in the daily execution of the manager’s duties. Global business skills are those skills which differentiate leaders by demonstrating their understanding of the business markets and business environments on a broad scale. Not all managers will possess these skills without experience, exposure and training. Leaders that require these skills often make enterprise, or business level decisions. Findings from respondents reveal that global business skills related to industry strategy are important to managers. Survey respondents indicated they have ability in this area. Hypothesis two analysis provides ample evidence that a correlation exists between education levels of managers and leadership performance, therefore a conclusion can be made that these skills are cumulative over time as experience and education build on foundational bases managers gain from a number of sources. These sources may include formal educational institutions or company sponsored leadership training.
The core skills managers demonstrate point to the manager’s leadership potential in operational performance. These skills include motivating employees, making operational decisions and relying on experience to handle situational issues and daily operational activities. These skills are gained through experience and are closely linked to the personal attributes the manager maintain. For example, managers placed being a good decision maker as the top skill they hold. Managers embrace day-to-day operational skills as a basic requirement part of their jobs. Murphy, Gibson and Greenwood (2010) contend that “it is imperative for managers to understand the value differences between managers and non-managers of different generations” (p. 42). This is a variable that likely change over time with each generation and will provide opportunity for future research.

The conclusions drawn from the analysis of managers’ skills is that because hypothesis two is supported, it is important for organizations within businesses to focus assessment of skills formal and specialized education. Assessment analysis of this area measured over time through the LABSC, could provide valuable data to organizations concerning the strength of the skills base within leadership teams. Further, it may well provide measurable data to identify skills gaps created through lenient hiring practices within an organization or business.
**Knowledge**

A manager’s knowledge is the sum of business education, learning from experience and in-depth understanding concerning global issues that they bring to an organization. This study provides sufficient evidence that there are areas managers clearly need additional training in to improve knowledge. Managers responses to their business knowledge reveal that the business environment knowledge is more informed than the manager’s social environmental knowledge. This finding is important because it points to formal business education, business/industry knowledge, and financial relationships in business as the most relevant to the manager’s success. Additionally, it suggests that more emphasis needs to applied towards developing the social environment knowledge within organizations. If this same survey was applied through the LABSC and performance measured over time, it follows that managers’ differentiation would surface as actionable strategies which could be applied to improve performance in this area. The positive correlation found in this study on all sub-elements of the MASK model indicate the right elements were selected for the study to determine which of the sub-elements would best assess a leaders performance. Appendix D of this study illustrates that managers’ business environment knowledge is important to attainment of business objective. Moreover, it points out that understanding the business model, the customer and being educated in the business field are requirements all managers must possess. Knowledge in these areas had the highest level of correlation relationships.

While social knowledge sub-elements also had high correlations, all five social knowledge areas tended to score lower than business knowledge areas. The exceptions were understanding multi-cultural team dynamics and understanding teaming cultures. A
possible explanation of this relationship may well be that managers require these two social skills to carry out day-to-day activities related to supporting customer needs and business strategies. As projected by the overall correlation scores in each section, social skills required by managers relationally rank and link closely with skills, attributes, and motivation elements. One explanation for this is that knowledge in business and social skills are required to successfully execute in other MASK element areas. Assessment in the area of a leader’s knowledge would follow the exact sub-elements in this study and possibly others not measured. Organizational missions, objectives and leadership composition would determine which sub-elements would be measured under the MASK model knowledge element.

Conclusions concerning assessment of leaders’ knowledge from this research study validate the connections between the business related knowledge and social knowledge and the ability to assess them through the BSC. As predicted, testing of hypothesis 3 resulted in high positive correlations demonstrating that the BSC is the right tool for capturing and differentiating leadership knowledge. The combinations of knowledge requirements for each business sector varies, however, this study demonstrates that the MASK model is the correct standard to apply for assessment of performance in the area of a leader’s knowledge. One conclusion that resonates from this study is the level of knowledge managers have in the areas of sustainability and the environment. While these areas of knowledge have positive correlation relationships, they both ranked as the lowest within each of the knowledge categories. This points toward a possible gap in managers’ knowledge which would affect business strategies. Managers may require supplemental training or educational requirements in these areas.
Limitations

This study, as with others, has some limitations. First, the analysis of this study did not attempted to segregate level of manager responses. The responses from first line, second level and executive level managers were analyzed together. This is because response categories were not only broken into the four MASK elements, these elements were broken into two groupings within each main element. Therefore each sub-element provides a balanced approach to understanding the requirements of developing a well-defined assessment balanced scorecard. By delineating sub-elements to each MASK main element, further breakdown of data is not required to conclude findings in this study.

Additionally, each organization varies in terms of business strategies, leadership/management models and general business related requirements of their managers. Therefore, additional MASK sub-elements may be required for organizational leadership assessment in different types of business organizations. This study is limited to only five businesses. However, duplication of this study in the future may include supplementary manager level response data analysis.

Conclusions and Suggestions for Future Research

There are several conclusions drawn from this study. First, there are nearly identical uniform interrelationships between the four MASK elements and the leadership performance improvement elements measured between the pretest survey and the primary survey. This conclusion is important because it indicates that if the exact survey were proposed as an assessment survey in an individual business application, then results would likely closely mimic those in this study. This speaks to the validation of measuring the correct performance sub-element indicators of performance under each MASK
principal element category. This also points to the validation of outcomes of the Stevens (2003) empirical study which indicate that “the MASK elements allow for flexibility and revision to meet the changing requirements of the current workplace” (p. 76). Stevens specifically discussed the skills and knowledge elements as being contributors of changing requirements in the workplace, this study suggests that personal attributes contribute to changing the work environment, therefore, focus on personal attributes is important to manager assessment and changing of the business environment. Cokins (2010) argues that “key performance indicators (KPI’s) can determine the degree of influence and “lift” that various cascaded KPI’s have on higher-level enterprisewide KPI’s-hence, correlation analysis validates or improves the KPI selections” (p. 26). If MASK sub-elements equate to KPI’s, then previously undiscovered cause and effect relationships in managers performance can be predicted through the use of MASK elements for assessment.

Second, by targeting MASK elements that directly influence business performance, leaders can develop the skill and knowledge base strategically aligned to business strategies. Future research and advancement of this study should break down which exact MASK sub-elements could be expanded to a more in-depth understanding of shifting attributes, motivators, skills and knowledge as businesses develop and mature. Leadership assessment modeling profiles of companies could become complex based on the idiosyncratic issues within the organization. For example, understanding the sub-elements of having a global mindset may be value-added to organizations that are building leadership teams with global operations. Finally, future research based on how manager differentiation affects organizations may benefit companies embrace high
standards in manager performance. While this study provides an excellent framework to measure and execute manager differentiation, it does not reach beyond this effort.

**Implications for Business Practitioners**

Businesses confronted with rapidly changing business environments and competition which shapes the global markets such as those today in the telecommunication, aerospace and other industries require exact assessment of leadership capabilities. The LABSC provides measurement assessment of leadership performance over time. The scorecard is based on past studies and research of MASK and BSC modeling. The combination of these models allows businesses to accurately measure and predict leadership performance. This is vital to manager differentiation within businesses and is a foundational framework for improving leadership performance. Year over year assessment using this tool provides stability in measurement of managers’ knowledge base, skills base and refinement of personal attributes. Gardner Francesca Gino and Staats (2012) argues that “with a knowledge integration capability, team members work collaboratively in a way that encourages ongoing, constructive dialogue so that the valuable resources in the team can be effectively utilized for team performance” (p. 1005). This argument resonates with all of the MASK elements. Assessment and measuring leaders within organizations around the MASK elements provides individuals and organizations compressive visibility to performance which is actionable.
Application of Study Findings

This study provides a step-function improvement in business assessment and measurement best practices. It also furthers research in the area of manager differentiation which is becoming more important to businesses attempting to strengthen management teams. In a business setting, the LABSC can be integrated through application as a quarterly assessment. The LABSC is essentially a three feature scorecard. First, the assessment provides the baseline depth of data required to inform organizations on how well rounded managers are in terms of MASK elements which relate to business level strategic objectives. The data derived from the assessment can be segregated, applied to metrics or continuous improvement action plans. Second, the assessment data can be measured and monitored through the scorecard. The scorecard can be utilized on a monthly basis at the organizational and business levels to track performance. The scorecard provides for individual accountability in measured areas and supports manager differentiation efforts. Tucker (2012) advocates “measuring managers in this way using SMART goals—that is, specific, measurable, achievable, realistic and time-bound goals” (p. 76). By tying managers to specific, realistic goals the third function of the LABSC can be accomplished, that is application of a standard for manager differentiation. Evidence exists from practical application of manager differentiation at General Electric and other companies that manager differentiation is important to companies as they attempt to maintain market share. Zook and Allen (2011) argues that “business differentiation is key to businesses competitive advantage” (p. 109). Differentiation of businesses’ strengths is best accomplished through assessment using the LABSC.
Summary

As previously proposed in this study, businesses are searching for solutions that will help them baseline, assess, measure and track leadership behaviors. Each leader’s behaviors and competencies are captured using the MASK model as it establishes the framework for baselining leadership behaviors and competencies for assessment and measurement through a Leadership Assessment Balanced Scorecard (LABSC) instrument. The LABSC is a derivative measurement system based on Kaplan and Norton’s (1992), Balanced Scorecard (BSC). The BSC has been used in a wide variety of applications but never as a leadership measurement system using the MASK model elements as the primary behavior indicators of performance. In addition to providing a valid assessment system, a primary objective of this study is to provide an application companies can utilize to differentiate between managers’ performance. The MASK elements clearly support this objective. Kaplan and Norton (1992) argue that “what you measure is what you get” (p. 71). This argument supports not only the framework for the BSC, but also differentiating between managers’ performance. The MASK elements provide the correct distinction between each manager’s performance so that businesses can place managers in the roles that best support business goals and objectives.
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Appendix A

Multi-Generational Leaders Environmental Factors Motivation Approaches

<table>
<thead>
<tr>
<th>Environmental Factors</th>
<th>Baby Boomers (Traditionalist)</th>
<th>Gen X</th>
<th>Gen Y</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Organizational Communication</strong></td>
<td>Controlled</td>
<td>Centralized</td>
<td>Collaborative</td>
</tr>
<tr>
<td><strong>Alignment of Values</strong></td>
<td>Disciplined</td>
<td>Delineate</td>
<td>Detached</td>
</tr>
<tr>
<td><strong>Opportunity/Position</strong></td>
<td>Tenure</td>
<td>Transitional</td>
<td>Temporary</td>
</tr>
<tr>
<td><strong>Professional Relationships</strong></td>
<td>Valued</td>
<td>Visualization</td>
<td>Virtual</td>
</tr>
</tbody>
</table>
## Appendix B

### MASK Model Survey

**Instructions:** Please place an X in your response. Please add any comments that you may have to assist this research study.

### Motivations-Attribute-Skills-Knowledge (MASK) Leadership Assessment Survey

<table>
<thead>
<tr>
<th>Question Number</th>
<th>QUESTIONS</th>
<th>2 Strongly Agree</th>
<th>1 Strongly Disagree</th>
<th>Comments If Any</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>By high expectations</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>By high job satisfaction</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>By other leaders</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>By high customer satisfaction</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>By working in a competitive-environment</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>By meeting stakeholder expectations</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>By my own self confidence</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>By my own leadership maturity</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>By a learning environment</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>By setting and attaining goals</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Strong work ethic</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Good communicator</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>Has a global mindset</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>Grounded by values</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>Grounded by moral character</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>Grounded by principles</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>Accepts responsibility</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>Demonstrates empathy</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>Demonstrates Self-confident</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>Demonstrates Maturity</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>Can interpret strategy</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>22</td>
<td>Can execute strategy</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>23</td>
<td>Good decision maker</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>24</td>
<td>Can develop strategy</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>25</td>
<td>Can set realistic goals</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>26</td>
<td>Guided by manager experience</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>27</td>
<td>Ability to work through difficult situations</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>28</td>
<td>Ability to motivate employees</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>29</td>
<td>Ability to set direction</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>30</td>
<td>Ability to take advantage of cultural diversity</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>31</td>
<td>Understands the business model</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>32</td>
<td>Understands business financial relationships</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>33</td>
<td>Formally educated in the business field</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>34</td>
<td>Understands the customer/customer needs</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>35</td>
<td>Understands learning concepts</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>36</td>
<td>Understands global trends</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>37</td>
<td>Understands multi-cultural team dynamics</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>38</td>
<td>Understands diversity</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>39</td>
<td>Understands sustainability impacts</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>40</td>
<td>Comprehends sustainability practices</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

For These Questions Focus on What Motivates You

For These Questions Focus on Your Attributes

For These Questions Focus on Your Skills

For These Questions Focus on Your Knowledge

For These Questions Focus on Your Leadership Performance Behavior

<table>
<thead>
<tr>
<th>Question Number</th>
<th>QUESTIONS</th>
<th>2 Strongly Agree</th>
<th>1 Strongly Disagree</th>
<th>Comments If Any</th>
</tr>
</thead>
<tbody>
<tr>
<td>41</td>
<td>Achievement of organizational strategy goals motivates me to perform at my best.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>42</td>
<td>My education level contributes positively to my performance.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>43</td>
<td>I need guidelines to help me perform at my best.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>44</td>
<td>I would perform at my best if my performance was measured.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>45</td>
<td>Performance standards help me as a leader</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>46</td>
<td>My beliefs about what it takes to be a leader affect my performance as a leader.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>47</td>
<td>I believe that if my performance was measured using the balanced scorecard, my performance as a leader would improve.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>48</td>
<td>The balanced scorecard is a good tool to document my leadership performance.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>49</td>
<td>I think that the balanced scorecard would demonstrate and help predict my leadership performance.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>50</td>
<td>Assessment of my leadership performance is important to me.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Appendix C

Demographic Information

The following data will assist the researcher to determine more about the experience of those responding to this survey. This data is important to segregate data to accept or reject hypothesis statements and research question relative to this study.

1. Are you a first line manager?_______________
2. Are you a second level or senior manager?_______________
3. Are you an executive?_______________
4. How long have you been a manager?_______________
5. How long have you been in your current position?_______________
6. What is the highest degree you have earned?_______________
7. If you do not have a degree, have you completed vocational education?_______
8. Please identify the business sector you work in
   a. Private Business Sector
   b. Public Sector
   c. Non-Profit Sector
### Appendix D

Manager Knowledge Rankings

<table>
<thead>
<tr>
<th>Category</th>
<th>Knowledge</th>
<th>Category Rank</th>
<th>Overall Ranking</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business Environment</td>
<td>Understands the Business Model</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Understands the Customer/Customer Needs</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Formally Educated in the Business Field</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Understands Business Financial Relationships</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Comprehends Business Sustainability Practices</td>
<td>5</td>
<td>8</td>
</tr>
<tr>
<td>Social Environment</td>
<td>Understands Multi-Cultural Team Dynamics</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Understands Teaming Concepts</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Understands Global Trends</td>
<td>3</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>Understands Diversity</td>
<td>4</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>Understands Business Environmental Impacts</td>
<td>5</td>
<td>10</td>
</tr>
</tbody>
</table>

Note: All Knowledge Scores Positive by Respondents
### Manager Motivation Rankings

<table>
<thead>
<tr>
<th>Category</th>
<th>Sub-Category Motivators</th>
<th>Category Rank</th>
<th>Overall Ranking</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Organizational</strong></td>
<td>High Job Satisfaction</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Teaming Environment</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>High Customer Satisfaction</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Meeting Stakeholder Expectations</td>
<td>4</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>Working in a Competitive Environment</td>
<td>5</td>
<td>9</td>
</tr>
<tr>
<td><strong>Individual</strong></td>
<td>Own Self Confidence</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>High Expectations</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Own Leadership Maturity</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Setting &amp; Attaining Goals</td>
<td>4</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>Other Leaders</td>
<td>5</td>
<td>10</td>
</tr>
</tbody>
</table>

Note: All motivators were scored as positive by respondents.
Manager Skills Rankings

<table>
<thead>
<tr>
<th>Category</th>
<th>Skills</th>
<th>Category Rank</th>
<th>Overall Ranking</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Day-to-Day Operational Skills</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Good Decision Maker</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Guided by Manager Experience</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Ability to Motivate Employees</td>
<td>3</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>Ability to Work Through Difficult Situations</td>
<td>4</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>Ability to Take Advantage of Cultural Diversity</td>
<td>5</td>
<td>10</td>
</tr>
<tr>
<td><strong>Global Business Skills</strong></td>
<td>Can Interpret Strategy</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Can Execute Strategy</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Can Develop Strategy</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Ability to Set Direction</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Can Set Realistic Goals</td>
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<td>8</td>
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Note: All Skills Scores Positive by Respondents
## Manager Attribute Rankings

<table>
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<tr>
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<td>Personal Attributes</td>
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<td>Grounded by Moral Character</td>
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<td></td>
<td>Good Communicator</td>
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<td>Strong Work Ethic</td>
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<td>Experience Attributes</td>
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<td></td>
<td>Accepts Responsibility</td>
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<td>3</td>
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<td>Demonstrates Maturity</td>
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<td>Demonstrates Empathy</td>
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<td></td>
<td>Has a Global Mindset</td>
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**Note:** All Attributes Scores Positive by Respondents
Appendix H

IRB Approval

May 21, 2012

Chris Bellamy
201 Elmwood Lane
Coatesville, PA. 19320

Dear Mr. Bellamy,

Congratulations! The JIU Institutional Review Board has approved through an Expedited review, your research, entitled “Motivations-Attributes-Skills-Knowledge (MASK) based Leadership Assessment balanced Scorecard: An Empirical Study” You may now defend your research proposal and begin to collect data.

You must notify the IRB of any changes you make to your current research project, including the addition/revision of survey or interview questions.

Please contact the IRB with any questions regarding this approval. Again congratulations! Keep up the hard work! You are almost there!

Thank you,

Barb Donner
Academic Coordinator
Jones International University
Tel: 303.784.8458
Fax: 303.784.8426
Email: bdonner@international.edu

cc: Dr. Roy Sutton
    Dr. Joanne Maypole
    Dr. Danette Lance
Appendix I

Communication to Participants

**Description Purpose of the Research Study**

This survey is to help the researcher study the effectiveness of a leadership assessment system using the balanced scorecard to measure leadership performance. You are being asked to answer questions in a survey that will help determine leadership assessment outcomes. More specifically, the analysis that is synthesized from the study will measure your responses to questions concerning a leader's motivations, attributes, skills, and knowledge as they apply to leadership performance. Chris Bellamy, a doctoral student at Jones International University (JIU) will conduct the analysis from the survey’s and use the analysis in a doctoral project.

**Participation Duration**

The survey will consist of fifty questions and will take approximately fifteen minutes to complete. The questions are all multiple choice questions. There is also a demographics page with eight questions which is designed to gather data concerning your management experience. Both the survey and the demographics page are anonymous. After the study has been completed, the outcome will be sent to you so that you can see how you and others respond to the survey.

**Risk and Benefits**

The risk associated with this study is very low as your participation is by survey only. There are no potential financial risks or burdens to you as a participant in the study. Your participation is voluntary, refusal to participate will involve no penalty or loss of
benefits to which you. You may discontinue participation at any time without penalty or loss of benefits to which you would otherwise receive from the study. The benefits to you in this study is knowledge gained through the outcomes in the analysis of surveys.

**Anonymity and Confidentiality**

Anonymity and confidentiality will be maintained because no names will be used in the study. All e-mail addresses and any personal data will be kept secure and will not be given to anyone outside the primary investigator. The doctoral committee reviewing the study for approval will only have access to the statistical data from the survey and no personal data gathered as a result of the study. The collection of data will be protected in a secure database owned by the investigator of the research and participants will only be identified by a number code so that no personal information is gathered. The data will be destroyed after a period of three years by erasing if the database used in the study. If you have questions concerning the study you may contact the investigator Chris Bellamy at (210) 262-1437 at any time.

**Authorization**

I have read the research description, risk, benefits, confidentiality and anonymity. I understand my level of participation is only to complete a survey instrument for data analysis. I understand I can contact the research investigator at any time. The investigator has explained the all elements of data use to me.

I wish to participate in the study

Participant Signature: ______________________________________
Date: __________________________
Printed Name: ________________________________
Investigators Signature: ____________________________
Learner: Chris Bellamy (username: Aileron777)
Institution: Jones International University
Contact Information 201 Elmwood lane
Coatesville, PA 19320 USA
Department: student
Phone: 201-262-1437
Email: chris.d.bellamy@boeing.com

**DBA and EdD Adult Ed Students & Faculty - Basic/Refresher**
Choose this group to satisfy CITI training requirements for Investigators and staff involved primarily in DBA and EdD Adult Ed Students & Faculty Research with human subjects.

---

### Stage 1. Basic Course Passed on 03/10/12 (Ref # 7620942)

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Appendix K

TURN IT IN Originality Report

Turnitin Originality Report
Motives-Attributes-Skills-Knowledge (MASK) Leadership Assessment Balanced Scorecard Study by Chris Bellamy
From BA 823-Final Defense (BA-823 Dissertation Defense)

- Processed on 25-Jan-2013 8:21 PM MST
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