Employees'' Perception on their Superiors'' Leadership style and

its relationship with Fostering Innovation Culture in Manufacturing

Industry in Penang, Malaysia.

By

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Research report in partial fulfillment of the requirements for the

degree of Master of Business Administration (MBA)

Universiti Sains Malaysia

2012

ACKNOWLEDGEMENT

First and foremost, I would like to express my sincerest gratitude to my supervisor, Haji Noor Nasir Bin Kader Ali, for his guidance and advice throughout the course of my thesis.

I would also like to take this opportunity to convey my thanks to all of my survey respondents, friends and colleagues. Without their help on the inputs, the results of this thesis would not have materialized!

To my beloved parent, John and Maureen, for their words of encouragement and continuous support that help in many ways. Although they never know about my thesis project along the way but is very dear to my heart.

Last but not least, to my wife, Syann, whose relentless love and understanding goes above and beyond her calling. Thank you for all that you do.

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ABSTRAK

Kajian kuantitatif adalah untuk meramalkan hubungan antara gaya kepimpinan pemimpin memupuk budaya inovasi. Para peserta yang disasarkan adalah pekerja dalam industri pembuatan yang terletak di Pulau Pinang, Malaysia dan laporan ini terdiri daripada 228 sampel. Pelbagai faktor Soal Selidik Kepimpinan dan Inovasi Memupuk Kebudayaan Soal selidik telah dihantar melalui emel dan juga dengan salinan bercetak terus kepada peserta di syarikat masing-masing. Kajian ini terdiri daripada 54 soalan yang merangkumi soalan-soalan demografi dan soalan-soalan yang masih berada di atas pembolehubah tak bersandar diukur menggunakan skala Likert lima mata. Data telah dikira dan dianalisis melalui ujian kebolehpercayaan Alpha Cronbach dan Analisis Regresi Berganda. Dalam persepsi pekerja, penemuan kajian teritlak seperti berikut: (i) gaya kepimpinan Transaksi diterima dan menunjukkan hubungan yang positif untuk memupuk budaya inovasi. (ii) Perubahan gaya kepimpinan sebahagiannya diterima dan menunjukkan hubungan yang positif untuk memupuk budaya inovasi. (iii) gaya kepimpinan pasif / Pengelakan sebahagiannya diterima dan menunjukkan hubungan yang negatif untuk memupuk inovasi budaya. Kepimpinan transaksi muncul sebagai peramal yang terkuat tunggal di kalangan tiga gaya kepimpinan yang dilihat ke arah memupuk budaya inovasi tetapi pemimpin perlu mempunyai campuran beberapa benang dalam Transformasi dan pasif / Pengelakan gaya kepimpinan. Keputusan ini menunjukkan bahawa pemimpin-pemimpin dalam industri pembuatan di Pulau Pinang perlu memberi perhatian lebih kepada ganjaran, motivasi dan mewujudkan laluan yang berwawasan untuk pengikut dan menyediakan ruang bagi pengikut untuk melaksanakan tugas mereka.

ABSTRACT

This quantitative study was to predict the relationships between the leaders" leadership styles on fostering innovation culture. The targeted participants are the employees working in the manufacturing industry situated in Penang, Malaysia and this report consist of 228 samples. Multifactor Leadership Questionnaire and Fostering Innovation Culture Questionnaire were sent through emails and also with printed copies directly to the participants in the respective companies. The study consisted of 54 questions which include demographic questions and the remaining questions on independent variables were measured, using a five-point Likert scale. Data were computed and analyzed through Cronbach"s Alpha reliability test and Multiple Regression Analyses. In the perception of employees, the findings of the study were generalized as follows: (i) Transactional leadership style is accepted and showed positive relationship to fostering innovation culture. (ii) Transformational leadership style is partially accepted and showed positive relationship to fostering innovation culture. (iii) Passive/Avoidance leadership style is partially accepted and showed negative relationship to fostering innovation-culture. Transactional Leadership emerged as the strongest single predictor among the three perceived leadership styles toward fostering innovation culture but leaders need to have a mixture of some threads in Transformational and Passive/Avoidance leadership style. These results suggest that leaders in the manufacturing industry in Penang needs to pay more attention to rewarding followers, motivating and creating a visionary path for followers and providing space for followers to perform in their assigned task.

Chapter 1: INTRODUCTION

Chapter 1 provides an overview of leadership and fostering innovation culture. Problem statements based on the gaps in the present literature are discussed. Based on the problem statements, research objectives and research questions for the proposed study are developed. A list of terms commonly used in this research and their definitions are also included. This chapter closes with an overview of the remaining chapters in this report.

1.1   Background

In today"s economic climate, strong and fierce competition is present in many of the industries prompting organizations to explore new ways in creating value in order to face these challenges. This context intends to show that innovation has been a crucial instrument in creating additional value to the organization and also increase the competitiveness to excel in the industry (Boone, Gordon, Barnes, & Fraser-Beckman, 2011). Innovation has become widely recognized as the main key to achieve competitive success (Francis & Bessant, 2005). This competitive environment requires organizations to provide high quality products and services, deliver rapid service response and feedback, and develop dynamic capabilities that are congruent with the rapidly changing business environment (Fawcett & Magnan, 2001; Lin, et al., 2005; Teece, 2009). Innovation through creativity is an important factor in the success and competitive advantage of organizations (Woodman, Sawyer, & Griffin, 1993) as well as for a strong economy (Drucker, 1985). Almost all organizations face a dynamic environment characterized by rapid technological change, shortening product life cycles, and globalization. Oragnizations, especially technologically-

driven ones, need to be more creative and innovative than before to survive, to compete, to grow, and to lead (Jung et al., 2003; Tierney, Farmer, & Graen, 1999).

Leaders of businesses of all sizes from all industries has made innovation among their top priorities to stay competitive and will act as a driving force to bring organization further (Scantlegury & Lawton, 2008). Effective leaders have the ability to exert influence and they know how to involve others, especially people around them, enabling people to act within the correct vision, mission and goals so that the oganization heads into the right direction and uses the correct methods to get there (Einstein & Humphreys, 2001). Some researchers (eg., Hoffman & Hegarty, 1993; Papadakis & Bourantas, 1998; Shin & McClomb, 1998) examine organizational leaders" ability to actively foster innovation within organizational cultures. This researcher asssumes that leaders being supportive of innovation is a precursor and a must to actively fostering innovation within the organization. This researcher also stresses the subtle difference between fostering innovation and being supportive of innovation.

Research on innovation can be segregated into three primary categories: (i) organizational innovation and innovativeness, (ii) individual innovativeness, and (iii) fostering innovation (Darren, 2006). Within the organizational innovation and innovativeness category, the research focuses on a wide variety of areas related to innovation and innovativeness, such as new product development processes. Research in the individual innovativeness category will contains studies, for example, examine how culture characteristics and reward and recognition programs will influence individual innovativeness in the organization. The substantial literature in the

fostering innovation category can be classified into the areas of innovation management and the process of influencing innovation within organizations.

Kanter (2002) states, "The behavior and attitude of leaders can encourage or stifle innovation." For this research, support for innovation was defined as the attitudes and behaviors exhibited by individuals that influence their level of support for innovation. Khandwalla and Mehta (2004) have both used various scales measuring attitudes and behaviors to incorporate innovation-supportive top management style into their study. It was assumed by this researcher that an individual, especially top management and leader must be supportive of innovation in order to successfully foster innovation within organizations. Another assumption was that an individual that is more supportive of innovation is likely to be more capable of fostering innovation within organizations. Kanter (2002) states, "It is therefore easier for leaders to praise innovation in theory than to support it in practice."

The background, the problem and purpose statements, as well as the significance of the study to leadership styles and support for innovation, are described in this chapter. The research questions and hypotheses, the research method and design, are introduced in chapter 2. The chapter is concluded with a discussion of the scope and the limitations of the study.

1.2 Problem Statement

Borins (2001) found that innovation primarily occurs at the lower organizational levels and Altshuler (1997) states that encouraging mid-level staff and front-line staff to be innovative can yield important value in the public sector. There is substantial literature examining innovation that focuses on organizational characteristics that

foster the ability to be innovative (e.g., Carrero, J.M., & Salanova, 2000; Damanpour, 1996, May; Salavou, 2004). The literature contains studies researching a variety of influences on innovativeness, such as cultural characteristics, management techniques, and administrative processes. More specifically, there are studies and discussions in the areas of organizational innovation and innovativeness, leaders" management and influence on fostering innovative cultures and innovations, individual innovativeness, and innovation-supportive cultures. However, researcher believed there was a gap on senior executives" support of innovation, particularly in the private sector. Grady"s (1992) research theorized that it is necessary for leaders to exhibit attitudes and behaviors that support innovation as a precursor to engaging in the actions and process of fostering innovation. The research also assumed that executive leaders or top management do not have to be personally innovative in order to be supportive of innovation. This approach was also based on the assumption that support for innovation is the basis on which leaders can develop attitudes and behaviors that can actively foster innovation within organizations. Issue is that, for many of the people, innovation seems to be "mysterious, unpredictable, and apparently unmanageable" (Tidd, Bessant, & Bavitt, 2005).

Paper by Chandran (2009) on Malaysian Manufacturing Systems of Innovation and internationalization of R&D showed that the R&D activities among manufacturing firms are still low where out of the 28,257 firms only 9.1 per cent (around 2,563) engage in R&D investment. It is also mentioned as a whole, Malaysia has not been chosen as a site for off-shoring or outsourcing of R&D activities to a significant degree. The Malaysian manufacturing systems of innovation have been

weak and failed to provide the necessary preconditions for MNCs to tap in the local R&D infrastructure.

The intrinsic motivation perspective dominates the creativity literature. This perspective argues that people are most creative primarily via intrinsic motivation (Amabile, 1983, 1998; Tierney et al., 1999). Amabile et al. (1996) further suggest that an individual"s perception of the work environment is a key determinant of his or her creativity. According to their model, the perceived work environment influences the creative work carried out in organizations; that is the psychological meaning employees attach to events in their organizations affect their motivation to generate new ideas. Previous literature has examined several psychological work environment perceptions that can influence creative work in organizations. For example, studies show perceptions of support for innovation (Scott & Bruce, 1994) to be important sources of creativity. There were three waves of national surveys of innovation in the form of the Community Innovation Surveys (CIS) been carried out from countries within the European Community since the early 1990s. Malaysia has also attempted to replicate these surveys via its National Survey of Innovation in the manufacturing sector since the mid-1990s. The paper analyze based on the characteristics of age of firm, extent of local ownership, size of firm, export shares of revenues and type of ownership. The paper result shows that ownership structure is an important determinant of innovation (Lee, 2003). To the researcher knowledge, there is no extensive research and studies conducted in the Malaysian context. Therefore, this research is conducted to fill the gap and to better understand the relationship between leadership styles and support for organizational innovation.

Emmanuel (2008) points out that due to the volatile environment in manufacturing sector, many organizations are failing and need creativity and constant innovation to remain competitive and successful. This means that they must recognize and harness the creativity and leadership that exist in the organization to manage its innovation processes. Organizations with weak leadership tend to be less effective and are prone to constant restructuring and downsizing in order to solve their problems. On the other hand, organizations with creative and effective leaders work to avert the need for major restructuring and downsizing.

Leadership is the fundamental and foundational competitive advantage for success because without the right creative and effective leadership in organizations, the strategy, technology, and innovations will not help it succeed. Organizations need creative and effective leadership to manage the implementation of the strategy and encourage innovation in the organization.

1.3 Research Objective

The purpose of the proposed quantitative research study was to understand the perception of employees towards superior‟s leadership style in fostering innovation culture in the manufacturing industry in Malaysia. The researcher‟s aim was to provide valuable knowledge to the industry, top management, practitioners and academics within the fields of manufacturing industry leadership style and innovation. This study is able to describe current support for innovation and provide information in developing the right leaders so that they could eventually encourage and support for more innovation. For this study, researcher focus on three types of leadership styles: transformational leadership, transactional leadership and laissez-faire.

As a summary, this study attempts to accomplish the following objectives:

1) Investigates the relationship between Transformational Leadership (IV) and Fostering innovation culture (DV).

2) Investigates the relationship between Transactional Leadership (IV) and Fostering innovation culture (DV).

3) Investigates the relationship between Passive/Avoidance (IV) and Fostering innovation culture (DV).

1.4 Research Questions

1) Does the employees" perception on their superior"s Transformational Leadership style has a significant relationship with fostering innovation culture?

2) Does the employees" perception on their superior"s Transactional Leadership style has a significant relationship with fostering innovation culture?

3) Does the employees" perception on their superior"s Passive / Avoidance Leadership style has a significant relationship with fostering innovation culture?

1.5 Significance of the Study

This study examined and described leadership style in the manufacturing industry and to allows leaders to respond to their followers" needs in encouraging and supporting innovation in the organization. This will help organization to be more competitive in the industry and to understand what is needed for leaders to be more supportive for

innovation. Not every leader is born or trained to be an organizational innovation leader. It has been tipped widely that, innovation was viewd as "an R&D thing" belonging to the technical or engineering department of the firm. Most of the production staff are having the mindset and thinking that they will just follow instruction from engineering team to carry out their task. But nowadays organizational innovation is consider a business-wide activity and one where the business leadership team must be front and center, clearly in charge of bringing out the innovation ideas from employees (Hughes, 2005). Innovation is a collective process of implementing ideas generated throughout resources, skills, and personnel within organizational functions and/or different organizations (Tatikonda & Rosenthal, 2000) as Mishra and Shah (2009) pointed out, innovation is a complex process that are "a typically characterized by high levels of both uncertainty and equivocality" (p.325). This suggestion of uncertainty in the environment involves technological change and customer demand. Empirical results have shown that firms with innovation will perform better, whether it is in terms of output or employment growth, compare with those without innovation (Crepon, E. , & J., 1998) (Gellatly, 1999).

This study's quantitative correlational examination can lead to further cause-effect studies identifying the right leadership style to support innovation as all questions are participate and answered by the non-management employees.

This study will benefit manufacturers in terms of leadership style and fostering innovation culture. The outcome of this study may use for further research and expand to manufacturing industry in other states across Malaysia.

1.6 Definition of Key Terms

Creativity, invention, and innovation

These three terms that have often been used interchangeably even though the research literature clearly makes a distnction between the three concepts. Each has been defined many different ways over the past several decades and organizational scientists do not agree on a single definition of innovation (Bantel & Jackson, 1989).

Creativity

This is the basic production of novel and useful ideas, which was derived from the definition used by Amabile, Conti, H. Lazenby, & Herron (1996).

Invention

This researcher defined it as the act of developing ideas into basic and useful forms, which was derived from the definition used by Pinchot (1985). This refers more directly to the creation of the idea or method itself.

Innovation

Is the creation of better or more effective products, processes, services, technologies or ideas that are readily available to markets, governments, and society. Innovation differs from invention in that innovation refers to the use of better and, as a result, novel idea or method.

Leadership Style

The relatively consistent pattern of behavior that characterizes and differentiate a leader (DuBrin, 1998). "Style reflects the process by which the leader interacts with

others to get the job done" (Taylor & Rosenbach, 1989). In other words, leadership style is the style a leader takes in his or her interaction with subordinates, toward influencing attainment of organizational goals. There are three types of leadership styles: Transformational Leadership, Transactional Leadership, and Laissez-faire.

Transformational Leadership

It is defined as the relationship that involves the leader motivating followers to be creative, imaginative and encourages them to offer their best efforts. The leader chooses high ethical standards, which raises the ethical aspirations of the followers. The main premise for the relationship is the growth of the individual follower (Burns, 1978).

Idealized Influence Attributed (Charisma Attributed)

This refers to the follower"s accreditations about the leader that result from how they perceive the leader"s power, confidence, and transcendent ideals (Antonakis & House, 2002).

Idealized Influence Behaviors (Charisma Behaviors)

This refers to specific leader behaviors that reflect the leader"s values and beliefs, sense of mission and purpose and ethical and moral orientation (Antonakis & House, 2002).

Inspirational Motivation

This refers to the leader"s ability to motivate and inspire followers by supplying and offering challenges and meaningful work. The leader creates an atmosphere of team cohesiveness and models a sense of optimism.

Individualized Consideration

This refers to the leader‟s ability to act as a mentor to organizational members by paying attention to each individual‟s needs, achievement, motivations and growth. Such leaders enable their followers to develop their potential to higher levels than the followers anticipated by delegating tasks, monitoring progress, checking to see if additional support is needed and listening effectively.

Intellectual Stimulation

This refers to the leader‟s ability to motivate and stimulate followers to be creative and innovative, and to constantly challenge the current state of the organization.

Transactional Leadership

It is defined as an effort by leaders to clarify responsibilities of followers, to describe tasks that are to be accomplished, to clarify expectations that the leader has for followers and to establish the benefits and rewards for compliance as well as the sanctions for failure to comply (Bass, 1985). The main premise of the relationship is the exchange of services and rewards.

Contingent Reward

This refers to the exchange process that occurs between the leader and the follower. The leader uses rewards that are explicitly outlined for the follower to match the expected level of achievement by the follower.

Management by Exception Active

This involves the leader actively searching for and correcting problems. The leader is able to take corrective action before the follower gets too involved in an assignment that is incorrect that cold eventually lead to frustration.

Management by Exception Passive

This involves the leader waiting until problems arise to intervene with the situation. Such leaders avoid getting involved until the point at which it is necessary that the leader focus on a current problem.

Laissez faire

It is a non-authoritarian leadership style. Laissez faire leaders try to give the least possible guidanace to subordinates, and try to achieve control through less obvious means. They believe that people excel when they are left alone to respond to their responsibilities and obligations in their own ways (dictionary).

1.7 Assumptions and Limitations

The following assumptions are made regarding this study:

1. The respondents understand the questionnaires.

2. The respondents answer the questionnaire honestly and completed to their best of their ability.

 The following are the limitations in this study:

1. All the disadvantages of the survey technique are recognized.

2. The respondents of this study are limited to employees in manufacturing sector in Malaysia.

1.8 Organization of Chapters

Chapter 2 reviews relevant literature on Leadership styles and fostering innovation culture or previous research. Chapter 3 develops theoretical bases for this study and the methodology for the hypotheses to be tested. Chapter 4 present the result of the study and data analysis procedures. Chapter 5 ends with the discussion, conclusion, summary and the suggestions for future research.

Chapter 2: LITERATURE REVIEW

This chapter will be introducing the elements of this research: innovation and leadership styles. The first section examines the definition of innovation. Second section will examines the definition of leadership styles theories, this include the breakdown of three sub-components, transformational leadership, transactional leadership and laissez-faire. There will also be the sub-components of different types of leadership which include Inspirational Motivation, Intellectual Stimulation, Individual Consideration, Charisma, Idealized Influence, Contingent reward, Management by exception active and passive.   Some studies regarding Transformational leadership and Organization Innovation are reviewed in the fourth section.

2.1 Innovation

A review of literature from the past revealed numerous definitions of innovation. Many of the definitions built on common themes. Because this chapter synthesizes innovation concepts and strategy mechanisms, it is important to have a working definition of innovation. Thompson (1976) defined innovation as the generation, acceptance, and implementation of new ideas, processes, and products or services. Damanpour (1996) defined innovation as the adoption of an idea or behavior new to the adopting oganization. Slappendel (1996) defined innovation as the process through which new ideas, objects, and practices are created, developed, or reinvented. Coopey, Keegan, & Emler, (1998) defined innovation as a particular form of change characterized by the introduction of something new. West (2001) presented innovation as the processes by which firms master and get into practice product designs and manufacturing systems that are new to them. For Stoker, Looise,

Fisscher, & De Jong (2001) innovation is defined as any idea, practice, or material artifact perceived to be new by the relevant unit of adoption. Finally, Edwards, Kumar, & Ranjan (2004) define innovation as a series of processes that are designed and managed to create and apply ideas and knowledge. Table 2.1 lists a sample of innovation definitions.

Table 2.1

Innovation definitions

Definition	Source
The generation, acceptance, and implementation of new ideas, processes, and products or services.	Thompson (1976)
The adoption of an idea or behavior new to the adopting organization.	Damanpour (1996)
The process through which new ideas, objects, and practices are created, developed, and reinvented.	Slappendel (1996)
A particular form of change characterized by the introduction of something new.	Coopey, Keegan, & Emler (1998)
The processes by which firms master and put into practice, product designs and manufacturing systems that are new to them.	West (2001)
Any idea, practice, or material artifact perceived to be new by the relevant unit of adoption.	Stoker, Looise, Fisscher, & de Jong (2001)
A series of processes that are designed and managed to create and apply ideas and knowledge.	Edwards, Kumar, & Ranjan (2002)

These seven definitions of innovation have two common themes: (i) something new and (ii) processes. Synthesizing the two common themes from the referenced literature, the working definition of innovation for this study is a system

designed and managed to create and apply new ideas that result in new products (goods and services) and processes.

Distinctions must be made between innovation, creativity, and invention, which are often integrated in innovation discussions. Creativity and innovation are related, but creativity is the development of new and novel ideas meanwhile innovation is the translation of those ideas into usable products and services (Richards, 2003). Innovation relies on creativity (Polewsky & Will, 1996), but creativity does not necessarily translate to innovation (Richards, 2003). While invention is creative development of ideas into basic and rudimentary forms, innovation is the development of those forms into a tangible and useful form.

Innovation can be segmented into three primary types. One common type discussed in the literature is technical innovations, such as products and service innovations. A second type of innovation is process innovation, which is usually in a technical operations context. The third type of administrative innovations, which are the management and operation processes of the organization. These three types of innovations are interactive within an organization when there exists a correlation between how radical a technical innovation is and the willingness of the organization to experiment with innovative administration structures and processes (Ettlie, 1990).

Three primary types of innovation are commonly discussed. Tidd (2001) describes three degrees as disruptive, radical, and incremental. Disruptive innovation is described as the changing of an entire market, radical innovation is described as a significant improvement of an existing product or process, and incremental innovation is described as a continuous cost and performance increase of a product or service.

While innovation is described above as a process of developing and applying new ideas for the creation of new products and processes, Rogers (1995) states that an imprtant aspect of the process is the diffusion and adoption of innovative ideas and products. According to Rogers, in the context of innovation, diffusion is a method of communicating information relative to a new idea. Diffusion of innovation ideas and products requires a communication channel, time, and a social network. As the innovation is diffused it can be accepted or rejected by individual recipients of the information.

The term „creativity" is often incorporated into the discussions of innovation. Like definitions of innovation, deinitions of creativity have a large literature base with a broad range of definitions. Creativity and innovation have equally varied definitions that overlap to the point that the two terms are often synonymous, thus creating a relationship between the two that is uncertain and confused (Kirton, 2003). Creativity is often thought of as the cognitively driven effort involved in recognizing a problem and developing a conceptual solution. The overlap with innovation occurs during the development and design of the solution, where innovation is commonly associated with the design and implementation of a product or service for the sake of improvement or problem solving. Kirton (2003) highlights the existence of innovation"s dependence on creativity, problem solving, and decision-making.

2.2   Why innovate?

Organizations must continually transform (Richards, 2003) to align with their external and internal environmental contexts. Organizations must also continuously reinvent themselves by abandoning irrelevant products, processes and capabilities, while identifying and adding those that will be required in the future (Bingham, 2003).

Bingham (2003) provides examples of product such as cost reduction, new product features and line extensions, new products to augment an existing line of business, and new products for new lines of business as rationale for innovation.

Walters" (2002) analysis of hundreds of innovative programs determined that many of the programs and initiatives had common inspirational drivers. Those innovation drivers include frustration with the status quo, response to crisis, new emphasis on crisis prevention and performance results, adaption of technology, and moral imperative.

One of the primary reasons for innovation posited by practitioners and scholars is competitive advantage. Innovation is key to competitive advantage (Ettlie, 1990; Kuczmarski, 2003; Lawson & Samson, 2001; Mayfield & Mayfield, 2004), as competitive advantage is created by recognizing a market need and creating an innovation to satisfy the need (Quinn, Baruch, & Zien, 1997). In addition, studies have shown that the profit margin of innovators is higher than non-innovators (Tidd, 2001).

2.3   Innovation Frameworks

Lawson and Samson (2001) developed a model for understanding and managing the innovation capability of an organization. The model is based on seven elements, which include vision and strategy, harnessing the competence base, organizational intelligence, creativity and idea management, organizational structures and systems, culture and climate, and management of technology. The authors claim these elements build a framework highlighting the areas in which managers can direct their focus to build an organization"s innovation capability. The proposed model assumes that the

organization is focused on innovation and innovation output is the primary source of competitive advantage (Lawson & Samson).

Papadakis & Bourantas (1998) developed a framework consisting of environmental and organizational contexts and top management characteristics, which describes the influence on technological innovation. The framework incorporates personality and demographic characteristics of top management. The authors" study demonstrated the positive influence top managements" personality characteristics and environmental context have on organizations" innovativeness.

Damanpour (1996) analyzed the effects of 14 contingency factors and reported the correlation between structural complexity and innovation and between organizational size and innovation. Damanpour"s models are comprehensive and provide a conceptual framework for analyzing an organization"s predicted ability to innovate based on many variables and contingency factors. Damanpour found that contingency factors have an effect on the relationships, but Tidd (2001) states that such factors constrain rather than fully determine innovation capability.

Over the past several decades, leaders and managers have been seeking tools, guides, and hints for fostering, implementing, and supporting innovation. Many scholarly and mainstream literature authors have put forth a variety of such information aimed at providing assistance to organizational managers. While many authors focus on a specific set of tools, many recognize that each organization faces a unique set of circumstances, which require a unique mix of available tools in order to realize successful innovation (e.g., Tidd, 2001).

In reviewing the available literature, the researcher concludes that while there are many varied and useful strategy mechanisms for fostering and sustaining innovation, there are five that are commonly referred to in the literature. Those five mechanisms are leadership/champion, reward programs, teams, failure tolerance, and resource investment.

2.3.1 Leadership/Champion

Leadership is recognized as one of the single most important mechanisms for fostering innovation (Marshall & Vredenburg, 1992; Papadakis & Bourantas, 1998; Quinn, Baruch, & Zien, 1997). The Kitchell (1997) and Papadakis and Bourantas (1998) studies indicate top management may have no innovation. While leaders may not necessarily be expected to be a source of innovation, they may be responsible for developing and supporting an organizational culture that values innovation. Senior leaders in organizations are expected to be supportive of innovation and work to establish an innovative culture (Chandler, Keller, & Lyon, 2000). Leadership characteristics often associated with an innovative organization are similar to the qualities of transformational leaders (Howell & Higgins, 1990), and include being visionary, motivational, and participative (Northouse, 2004).

Innovation champion was widely recognized as an important mechanism (Howell & Higgins, 1990; Rogers, 1995). An innovation champion is an individual that supports an innovation from inception through implementation by breaking down barriers, bringing together members of the innovation team, ,and supplying necessary resources. Howell and Higgins state that presence of a champion has been strongly linked to successful innovations. According to Maidique (1980) the critical role champions of innovation play within organizations has been recognized since the

early 1960‟s. A new idea either finds a champion or dies (Schon, 1963). Schon (1963) describes a champion as someone who is "willing to put himself on the line for an idea of doubtful success. He is willing to fail. But he is capable of using any and every means of informal sales and pressure in order to succeed" (p. 84).

2.3.2   Reward programs

Reward and award programs are an important component of supporting innovation and creativity (Amabile, Conti, H. Lazenby, & Herron, 1996). While the private sector has for some time had lucrative reward programs in place for innovative employees, the public sector is only recently beginning to establish such programs, although not at the same financial levels as the private sector (Borins, 2001b). federal government organizations and employees are eligible for innovation award programs, such as the Ford-Kennedy School of Government Innovation Award Program.

Khandwalla and Mehta (2004) included a variable in their study for management‟s rewarding of successful innovation, creativity, resourcefulness, experimentation, and improvisation. In his study, Maidique (1980) described the formalization of reward systems as organizations mature. Chandler et al. (2000) found that organizational award systems must be perceived as supportive in order to motivate employees to engage in such activities.

2.3.3 Teams

Teams engage the innovation process (Richards, 2003). Teams, groups of individuals from various divisions within organizations brought together to use their specific skills and expertise to accomplish a goal, work well for innovation efforts within organizations. Teams empowered by leaders correlates with innovation behavior and

an innovative climate (Stoker, Looise, Fisscher, & De Jong, 2001). Teams are necessary for innovation, as no single organization element has the skills and expertise to effectively implement an innovation through the complete cycle.

2.3.4 Failure tolerance

A frequently cited strategy mechanism in the literature is organizations" and leaderships" ability to be failure tolerant. Most individuals, teams and organizations avoid failure, but innovation is a high risk and high failure venture, and most will often fail in innovation efforts. Stevens & Burley"s (1997) research indicates that it requires 3,000 raw ideas to produce one successful innovative commercial product. It is important to fail intelligently, not incompetently (Farsun & Keyes, 2002). Organizations must use intelligent and tolerated failures as productive learning tools to expand knowledge and strengthen the innovation supportive culture. Behn (1997) and Schon (1963) state that innovation leaders must be willing to fail. Senior executives must use intelligent and tolerated failures as productive learning tools (Farsun & Keyes, 2002) to expand knowledge and strengthen support for innovation in organizational cultures.

2.3.5 Securing resources

Resources, such as funding, material, and people, must be available to ensure that innovation can occur. Employees without resources to complete assigned tasks are less likely to exhibit innovative behaviors (Chandler et al., 2000). Only those innovation projects with adequate resource allocation will have the opportunity to succeed (Christensen, 1997). Hamel (2000) states that typical projects are allocated resources, but innovation projects with merit attract resources.

Senior executives often have the ability to secure resources that can influence innovation (Hoffman & Hegarty, 1993). Hlavacek & Thompson (1973) state that within bureaucratic organizations, budgeting systems are obstacles to innovation resources. Gobeli & Brown (1993) found that the most common problem in the innovation process, at every stage, is inadequate resources. Borins (2001b) found that inadequate resources were the obstacle that innovators overcame least frequently. Strategically identifying and opportunistically exploiting resources identified for innovation are challenges (Schrage, 2004). Maidique (1980) suggests that a key action in successful innovation is that of sponsorship, which he describes as executives channeling resources into innovative projects.

2.4 Support for Innovation

From previous discussions, it is apparent that senior executives in public sector organizations are responsible for influencing and supporting organizations" innovation efforts, and that senior leader have a responsibility to create an environment that is supportive of innovation. This section of the chapter will discuss individual leader support for innovation as a component of senior executive leadership. The assumption is that support for innovation is a foundational characteristic that must be present in senior leaders before they can actively foster and positively influence innovation. Support for innovation and support for innovation are often used interchangeably, but both describe level of support for innovation.

2.4.1 Describing Support for Innovation

It must be clear that support for innovation is a descriptive characteristic of an individual or group. In this chapter, the term is used to describe individual senior leaders" attitudes and behaviors towards innovation, such as openness to change,

failure tolerance, and propensity to take risks. This researcher assumes that senior leaders who take action to be supportive of innovation will exhibit support for innovation characteristics. There are few studies on support for innovation, and most have been focused on organizational cultures" support for innovation (e.g., Chandler et al., 2000; Jassawalla & Sashittal, 2002).

Support for innovation must be clearly differentiated from fostering innovation. Fostering innovation is a term describing actions performed to stimulate development and growth of innovation. As described earlier in this chapter, fostering innovation includes actions such as facilitating collaborative communication, encouraging risk taking, and using a reward system. Support for innovation is a characteristic of leaders, and is assumed to be a prerequisite for fostering innovation. While high levels of support for innovation do not guarantee that a senior leader will foster innovation, it is assumed by the researcher to be indicative of leaders" potential to foster innovation. Support for innovation must also be differentiated from innovativeness. Innovativeness is a term used to describe an individual"s willingness to change (Hurt et al., 1977) or an organization"s proclivity to innovate (Salavou, 2004). While innovativeness is a descriptive term, this researcher assumes that innovativeness is the ability to create innovations and is a dependent characteristic of support for innovation. While demonstrating high levels of support for innovation does not guarantee that a senior leader will demonstrate innovativeness, this researcher assumes that support for innovation is an indicator of leaders" potential innovativeness.