# THE SOUTH EAST ASIAN JOURNAL OF MANAGEMENT

# THE SOUTH EAST ASIAN JOURNAL OF MANAGEMENT

# Contents

# Exploring CEO's Leadership Frames and E-Commerce Adoption among Bruneian SMEs

Afzaal H. Seyal*, Awg. Yussof, Awg. Mohammad and Mohd Noah A. Rahman
Faculty of Business and Computing, Department of Computing and Information Systems,
Institute of Technology Brunei

*The study examines the 250 CEOs' leadership style in adoption of electronic commerce (EC) among Bruneian SMEs. The study uses Bolman and Deals' instrument to measure the leadership frames and found that majority (70%) of the leadersare practicing all four frames and considered as effective leaders. Both human and symbolic (paired) frames of leadership remains dominant.In addition, structural, human resource and symbolic frames are ranked highest among the multiple (three) frames used. However, paired leadership frames (human and symbolic) were found to be significantpredictor of EC adoption among Bruneian SMEs. Based upon the analysis and conclusion some recommendations were made for the relevant authorities.*

## Introduction

In the recent years researchers are eager to find out the factors that are significant to adopt information technological innovations. In this concern, several of the organizational (Mirchandani and Motwani, 2001; Thong, 1999; Iacovou et al., 1995; and Scupola, 2003), environmental (Iacovou et al., 1995; Scupola, 2003; and Kuan and Chau, 2001) and technological factors have been pointed out by the researchers (Scupola, 2003; Iacovou et al., 1995; Lertwongsatien and Wongpinanwatana, 2003). Researchers have widely identified management support, managers' IT knowledge and skill, prior training of the managers cum chief executives, attitudes and personality are of prime concern. However, the question remains crucial, what causes the CEO to adopt to a new information technology features like EC? Finding an exact answer may not be easy.

In the recent years, "leadership style" from the organizational behavior is introduced in the information systems research domain and has been a focus of the researchers within the context of SMEs. It is further understood that strong leaders are important for making tough business decisions. Similarly, the emerging trend of entrepreneurship and empowerment has brought structural changes among business organizations. The business enterprises are becoming flatter in structure, decentralized in operation and lesser line of command and control has brought changes in managers' job and focus has been shifted from managers to the leader and champions of innovation and with that a new breed of leadership emerged (Cope and Waddell, 2001). A key component associated with the success of business enterprise is the effective leadership behavior of CEOs especially within the context of SMEs, which are believed to benefit from EC (OECD, 2002). In classic

* Corresponding author. Email: afzaal.seyal@itb.edu.bn

studies, leadership behavior is a factor that has been found to be significant determinant of organizational productivity and change (Almaraz, 2009), organization success (Harlow, 1994), and organizational climate (Lubbert, 1995).

In this article, the definition of SMEs is adapted after Yap et al., (1992) in which firms with size between 50 to 250 employees are treated as medium organization and those with size of less than fifty employees are treated as small organizations. Similarly, in this study Electronic Commerce (EC) is defined as the business conducted using electronic data transmission via the WWW and the focus is business to customer (B2C) e-Commerce in opposite to business to business (B2B) e-Commerce.

According to Kotter (1990), leadership consists of establishing a vision for the future along with strategies for producing the changes needed to achieve that. Unfortunately, limited studies have been done on the leadership style and IT adoption especially EC adoption. There is a dearth of research relating to the leadership behaviors of CEO within the context of SMEs. Additionally, no IS research on EC adoption and CEO leadership style have been done using Bolman and Deal's leadership theory of frame analysis. Thus, this pioneering study was undertaken to examine the use of leadership frames among CEOs and their relationship to EC adoption among Bruneian SMEs.

## Literature Review

### Foundations of Leadership Theories

Studies on leadership have passed through several changes from their early version of classical leadership styles, traits and behavioral theories originated in late 1930s. The study of leadership is based on concepts developed as a response to trait and group process theories. Leader behavior theory suggests "an attempt to relate what a leader does to leader effectiveness rather than what a leader is" (Tosi et al., 1990). Leader effectiveness is determined by those behaviors the leader exhibits to influence the group or organization. Leadership is viewed as "the particular acts in which a leader engages during the course of directing and coordinating the work of his group members" (Fiedler, 1967). An early work started at The Ohio State University by Stodgill, (1981) to obtain descriptions of leader behaviors that could be classified into more general categories or classes of behavior. Stodgill, (1981) discovered that leader behavior seemed to be of two types: system-oriented (leader shows concern for the organization and getting the job done) and person-oriented (leader shows concern for the workers). Stodgill (1981) studies have been replicated and the two categories have been given different label but the conceptual foundation remains essentially the same (Hoy and Miskel, 1991). Research states that most effective leaders are those who practice both, knowing when and where each is appropriate. The Ohio State University leadership studies resulted in the leader behavior description questionnaire measuring two dimensions of leader behavior. The first one is labeled as 'initiating structure' and second one as 'consideration structure'. Stodgill (1974) reported that both consideration and initiating structure were found to be related more to job satisfaction than to high productivity.

The University of Michigan studied leadership behavior and found that they could be characterized in two-way, either production centered or employee centered. The production centered supervisors was primarily concerned with achieving high levels of production. While the employee centered supervisor was concerned about subordinate's feelings and attempted to create an atmosphere of mutual trust and report (Tosi et al., 1990). Studies of leadership dimension led to the concept of matching leadership based on the situation. The analysis of the variable of organizational setting or situation as important factors in looking at effective leadership behavior and organizational effectiveness guided leadership theorists to adopt a contingency theory of leadership (Fiedler, 1967). This theory further suggests that effective leadership is contingent upon different factor in the leader-follower relationship. Contingences theories believe that a specific combination of leader orientations, leader behaviors, and leader characteristics are more effective in

some organizational setting than in other (Yukl, 1989). Similarly, Jones and Bearley (1986) contingency theory found that leadership is situational. Subordinates and individuals should be treated differently in various situations. The leader's responsibility is to discriminate between the situational variables and the subordinate's needs to select the appropriate leadership behavior that will fit the situation. Bennis and Nanus (1985), studied 90 successful leaders and discovered that essential factor in leadership is the capacity to influence and organize meaning for members of the organization. They further explained, "Managers are people who do things right and leaders are people who do the right thing". The leader does the right things by focusing on the symbolic and cultural aspects of an organization, while "doing things right" refers to the structural aspects of an organization. Effective leaders are concerned with the organization's basic purpose; managers are concerned with routine duties.

Bolman and Deal, (1984) asserted that leaders view their world through a framework of preconditioned lenses and filters. This framework shapes how situations are defined and determines what action are taken. Just as Fielder, (1967) developed two orientations of leadership, Bolman and Deal (1984) developed four frames that portray the way subordinates think and act in response to everyday issues and problems. The human resource frame focuses attention on human needs. The structural frame focuses on organizational goals and efficiency rather than human needs. The political frame focuses on competition for scarce resources. The symbolic frame focuses on imagery, symbols and culture. Research on the four leadership orientation frames has shown that leaders tend to use the structural or human resource frames. The structural frame is closely related to the task orientation, while the human resource frame is closely related to a consideration orientation. Bolman and Deal's (1997) research indicated that leaders rarely use more than two frames. They determined that leaders most often used the human resource frame and scarcely used the symbolic frame. The structural and human resource orientation was found to be the best pre-

dictor of managerial effectiveness; political and symbolic orientation was found to be the best predictor of leader effectiveness, but the worst predictor of managerial effectiveness. So utilizing the leadership orientation in a multi frame view would yield the most effective leadership style.

Besides the above cited leadership styles, there are two other leadership types that are classified in the same category but positioned at different points on the same continuum. They are classified as transactional and transformational leadership approaches. Bass (1985) on the basis of Burn's (1978) ideas of transactional and transformational political leaders were among the first who made an attempt to deliberate on the characteristics of transformational leadership. Bass and Avolio (1990) developed an instrument MLQ-multi-factor questionnaire to capture responses on both transactional and transformational leadership style. Sarros and Santora (2001) studied the leadership styles among Australian businesses by using Bass and Avolio multi-factor questionnaire and found that most of the Australian Executives exercise a mixed blend of both transactional and transformational style of leadership.

Scupola (2009) used the Dunphy and Stace (1990) model of leadership that focus on different levels and degrees of change and leadership style that was mainly contributed in the theory of change management and measure four leadership attributes as Collaborative, Consultative, Directive and Coercive. Ogawa and Bossert, (1995) in their study of leadership organizational quality examined four basic assumptions underline most treatment of leadership such as: Function to influence organizational performance (Pfeffer, 1978), Role as leadership is related to organizational roles. A third assumption indicates that leaders are individuals who possess certain attributes, act in certain ways or both. A fourth assumption that has recently entered the literature is that leaders operate within organizational culture (Pfeffer, 1981, Daft and Weick, 1984).

### Organizational Adoption of Technology

The existing IT adoption literature is concerned about organizational or macro-level theory building and examines the practices of organizational IT adoption decisions. According to Fichman (2004) Diffusion of Innovation (DOI) by Rogers (1995) serves as the most widely cited theoretical framework, although other theories such as structuration theory (Walsham and Han, 1991) and network theory (Walsham, 1997) have also been used to explain IT adoption intentions in organizational settings. E-commerce adoption is an organizational innovation that is influenced by many industry-related and socio-political factors. Most studies on EC adoption among SMEs focus on factors that affect the adoption decision or factors that are significant to EC adoption. These factors are further categorized by *environmental factors* such as competitive pressure, supplier pressure (Thong, 1999), size of the business (Yap et al., 1992), information technology knowledge (Palvi and Palvia, 1991); *technological factors* such as perceived benefits (Iacovou et al., 1995). Most recently studies focusing on the strategic importance of EC (Drew, 2003) and the *organizational factor*-impact of perceived strategic value of EC by managers of Chilean SMEs on the adoption decision of EC (Grandon and Pearson, 2003; Seyal, 2009).

### The Importance of Leadership style to technology adoption

The early works of Thong and Yap (1996) and Thong (1999) have not only pointed out the relative importance of organizational variable in the adoption of technology but also found the significance of owner/managerial attribute towards information technology innovations. Within the owner/managerial attribute, much attention was given to characteristics of CEO especially in the context of SMEs as it is believed that CEO of the SMEs has a major role in the business decision making and act as catalyst to decide on the major information technology innovation and the major variable investigated are CEOs' IT knowledge, prior training, attitudes towards IT innovations (Thong and Yap, 1995) and personality of the CEOs (Harris, 1999). Thong (1999) in his study found the CEO's IT knowledge and innovativeness in IT adoption as significant.

On the other hand empirical evidences advocate that CEOs in SMEs are not IT knowledgeable and this ignorance is further treated as one of the barriers in IT adoption. Cragg and King (1993) found that owner managers/CEOs of SMEs lack IT knowledge and this also discourages other members in the organizations to explore further IT opportunities. The studies by Thong and Yap (1995) and Thong, (1999) provide a theoretical background of the later works on the CEO's role in identifying new technological opportunities, therefore the management support is crucial for IT adoption (Thong and Yap, 1995; Chau, 2001; and Scupola, 2003). Iacovou et al., (1995) further pointed out the role of CEO and top management as a significant variable in investing in IT and e-Commerce within the context of SMEs.

Previous studies have indicated the relationship of variable 'personality of CEO' with the technological innovation and adoption. Melone (1990) has found that personality has an impact on the attitude of computer usage. Mawhinney and Lederer (1996) reported that there exists a fairly consistent relationship between adoptions of computer with managerial personality type. Harris (1999) found that individuals with stronger personality trait of autonomy display more positive attitude towards EUC. Freese and Rivas (2006) studied personality as one of the variables toward Internet adoption in Wisconsin, USA and found that personality variable openness is strongly associated with the adoption, while neuroticism is inversely related to the adoption. Similarly, Marcati et al., (2008) studied the role of SMEs' entrepreneur's innovation and personality as significant toward adoption of innovation at SMEs. Howell and Higgins (1990) argued that personality characteristics influence the emergence of innovation champions in organization and the role of champion demands personal attributes. Finally, transformational leadership theory further supports the notion of a leader's personality char-

acteristics as a major determinant of organizational innovativeness (Conger and Kanungo, 1987).

It is evident from the above mentioned studies that variable personality has an influence on the EC adoption. However, there are some studies that have focused on the leadership attribute instead of personality towards the EC adoption. Lewin and Stephens (1994) proposed an integrated model in which CEO background, attitudes and demographics (along with external and internal factors) influences organizational innovativeness. Papadakis and Bourantas (1998) studied the role of CEO as a corporate champion of technological innovations (TI) and found that CEO characteristics significantly influence TI and further outweigh environmental and internal organizational factors. Ahn and Kwon (2000) studied the effect of CIO's transformational leadership on empowerment and leadership performance among Korean businesses and found that transformational leadership is positively related to leaders' performance.

Cope and Waddell (2004) studied 182 Australian managers and found that within most successful organizations; leaders had a distinctive style that facilitated the appropriate change suitable to promote an e-commerce environment. Sophonthummapharn (2005) studied the leadership style of three hundred Thai food companies' CEOs toward the e-Commerce adoption. The result confirms that there was a significant difference in e-Commerce adoption based upon the leadership style. However, the leaders with both task and people concern were found to be early adopters of e-Commerce.

O'Regan and Ghobadian, (2007) examined the relationship between leadership, operating environment, use of process technologies, management practices, innovation and performance and found that transformational/human resource leadership style is more conducive to innovation and introduction of new products whereas, transactional leadership tends to modify products. Scapola (2009) explored the leadership styles in e-Commerce adoption among Australian SMEs and found the role of consultative leadership style as significant in e-

Commerce adoption. Similarly, Almaraz (2009) in his study of effective change leadership style among SMEs found that visionary leadership style was strongly linked with the organizational change.

Chang (2005) studied the academic department chairs' leadership and integration of ICT into teaching using Bolman and Deal's four-frame pattern and found that all four leadership frames of academic department chairs were significantly correlated to IT infrastructure and human resource are insignificant with technology utilization. However, all four frames were significant with technology and administrative support. 26% were using single frame approach and 24% were using paired frame. Out of these 24% paired-frame users, 55% were using a combination of human resource and structural frames and 18% used human resource and political frames. None was reported to use combined pattern of structural and symbolic frames. Multiple four-frame patterns were reported to be used by 50% of the respondents. He concluded that chairs' leadership styles had a significant influence on technical and administrative support for faculty utilization of IT.

### Bolman and Deal's Leadership Style and the Study

A review of literature on leadership provides rich information of research studies that were conducted in the educational leadership and reviewing the schools' performance (Eckeley, 1996; Durocher 1996) and have further found empirical evidences of Bolman and Deal's leadership orientation scale and strong correlation exists between the leadership style and school outcome and performance. Durocher (1996) found in his study of school's administrators that human resource frame was the predominant frame used by the administrators. The other frames were used to a moderately high extent by the respondents and 45.3% consistently used three or four frames. His research concluded that use of the multiple framework perspective mainly responsible for the success of the administrators.

However, Scapola (2009) asserted that leadership styles and organizational transformation types were not developed originally for the SMEs and the assumption is made that the Bolman and Deal's (1992) four leadership behavior and five dimensions of leadership style can be of use to investigate leadership in SMEs because of its high reliability coefficient and further parsimony. Bolman and Deal's (1991,1997) theory was selected for this study because of its proven usefulness in understanding how leaders' cognitive abilities relates to managerial and leadership effectiveness and also how balanced leadership style contribute towards effective management and leadership. It is relevant to mention here that Bolman and Deal's (1991, 1997) theory of leadership has four essential component and these four frames represent the ways in which leaders perceive organizational situation. Leaders possessing multiple or all four frames will provide effective leadership (Thompson, 2000). So if the leader is using one frame he is categorized as 'unbalanced' orientation of leadership and those who utilize two frames are categorized into 'moderately balanced' orientation and those using three or four frame are categorized into 'fully balanced' orientation. Originally Bolman and Deal (1991, 1997) examined the relationship between management and leadership within educational setting in the schools in USA and Singapore and found all four frames were positively associated with measures of effectiveness. However, the effective school management is somewhat oriented towards structure and symbolic frame. Findings also included significant positive predictors of success for both leaders and managers who used human resource and political frame. The leadership orientation survey instrument has better parsimony as Bedore (2000) studied 119 Human Resource Executives and found significant positive relationships between multiple frame orientations. Further the structural and symbolic frame was significantly related to the effectiveness. Bensimon (1989) asserted that ability to use multiple frames associated with greater effectiveness for managers and leaders.

Bolman and Deal (1980) noted that leaders views organizational experiences according to leadership styles and frames. These frames can be used to evaluate managerial and leadership effectiveness. They developed one of the most useful organizational typologies for viewing and studying leadership.

Bolman and Deal (1991) professed that the ability to understand the strengths of the various frames helped leaders understand and manage their organization more effectively. Executives that integrate the frames and use multiple frames would be more successful than executives that view organizational problems using single frames or perspective. They believe that modern organizations are complex and a single frame leadership perspective is likely to produce error and self-imprisonment for the managers (Bolman and Deal, 1984).

Miller (1998) studied occupational therapy directors and noticed that 40% rated themselves a multi frame user indicative of effective leadership. Findings indicated that directors reported their human resource skills the highest (84%), followed by symbolic (76%), political (75%) and structural (72%) frames. Similarly, Turley (2004) studied the program directors' leadership and found that directors were more effective managers than leaders due to their usage of human resource and structural frames. It was therefore recommended that in order to improve their leadership effectiveness, the program directors could benefit from development of their political and symbolic skills. The study found that only 44% of the directors used three or more frames and human resource frame was most frequently used (73%) followed by structural (69%), symbolic (41%) and political (32%). Sasnett (2006) examined the leadership of health science education program and found leaders operated most often in human resource frame (67%), followed by symbolic (47%), political (27%) and structural frame (7%). Approximately 40% of the leaders surveyed reported using more than one frame combination of human resource and symbolic frame. In another study, Sasnett and Ross (2007) discussed the role of leadership frames and perception of effectiveness among health management program directors using Bolman and Deal's four-frames typology and noticed that program di-
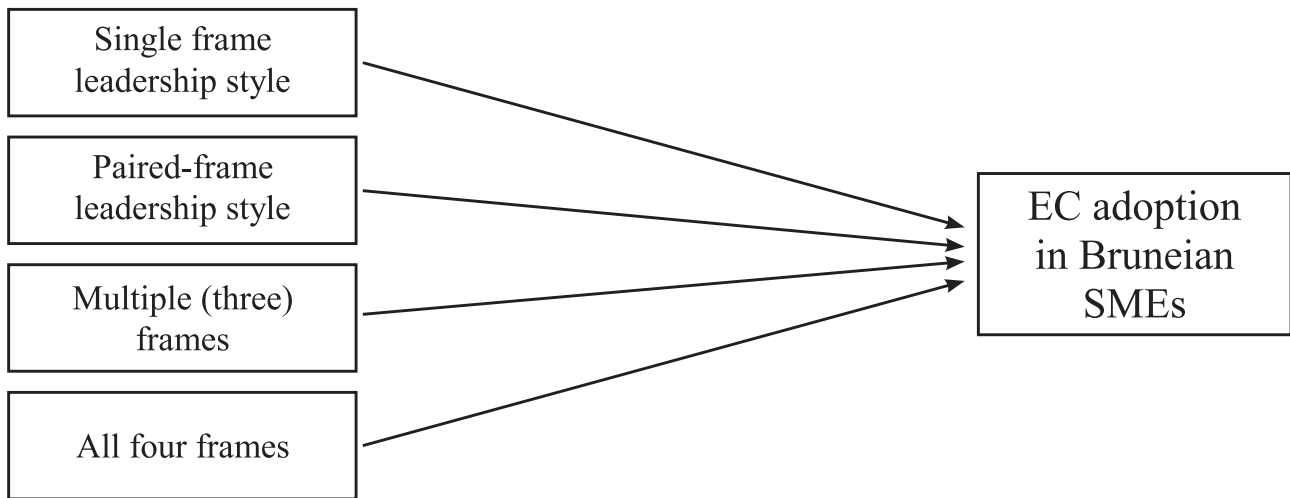
Figure 1. Normative Research Model

rectors are confident of their HR and Structural skill and less sure of the political and symbolic skills required of leaders and these skills are correlated with their self-perceived effectiveness as manager and leaders.

Similar findings were obtained by Bigham (1999) and Cote (1999). Mosser and Walls (2002) used the Bolman and Deal's framework to study leadership frames of Nursing Chairpersons and the organizational climate. The study indicates that 60% of the chairperson used the leadership behavior as described in one or more of the leadership frames. However, the followers perceived their leaders to use the HR frame the most, followed by structural, symbolic and political frame. Thompson (2000) studied the gender, leadership orientation and effectiveness by testing the theoretical model of Bolman and Deal's (1991, 1997) and examined the difference in gender between a 'balanced' or 'unbalanced' orientation of leadership, leadership characteristics, and perceived effectiveness of educational leaders and found that gender has no impact and female leaders were perceived to be equally effective.

It is evident from the above discussion that majority of the studies on the organizational leadership have used the Bolman and Deal's instrument because of its proven usefulness in understanding as how leader's thinking relates to managerial and leadership effectiveness and that a multiframes or balanced leadership orientation yields the most effective managers and leaders. This study therefore focuses on examining the difference between a fully balanced, moderately balanced and/or unbalanced orientation of leadership, leadership characteristics in the context of Bolman and Deal's (1991, 1997) four frame leadership theory. Because of the above assertion, we believe that managerial versus leadership grid can be best indicator of CEOs styles especially within the context of SMEs. This study is unique in a way as of using Bolman and Deal instrument to measure the leadership orientation and e-commerce adoption among SMEs. None of the prior research used the Bolman and Deal instrument within the context of technology adoption among SMEs in particular to ASEAN perspective.

Based upon the assertion above, we propose the following three research questions. *First*, why is it interesting to test the parsimony of the Bolman and Deal's instrument within the context of SMEs? *Second*, up to what extent any of the leadership frames (human resource, structural, symbolic and political orientation) do most of the CEOs' of Bruneian SMEs exercise at workplace? *Third,* what is the relationship between moderately unbalanced leadership orientations of CEOs with the EC adoption? *Fourth,* what is the relationship between fully balanced orientations of CEOs with the EC adoption? In addition a normative model (Fig 1) is prepared to reflect the leadership frames with the leaders' or CEOs' adoption of EC treated as dependent variable.

# Research Method

## Instrument

This study was grounded in the philosophy of leadership style of the CEO, which is a determining factor in adoption of EC among SMEs. To determine the quality of leadership we used a leadership-orientation survey (self/CEO) developed by Bolman and Deal (1991). The leadership orientation survey is composed of three parts. The first part asked the respondent to answer thirty-two questions on behavior dimension of leadership (The Appendix provides the details). In the second part, respondents have to answer six questions on leadership style; while the third part asked the respondent to answer one question for an overall rating of their leadership style, in addition to the section that defines demographics. Bolman and Deal (1991) laid out a clear four frame approach to organizations and leadership that was specifically given; the four frames (human resource, structural, political and symbolic) provide the leaders a way to cope with the complexity and ambiguity that surrounds life in the organization. Bolman and Deal (1991) assert that managers and leaders often bring too few ideas and too many habitual responses to organizational problems and challenges. Bolman and Deal (1991) further suggest that successful managers and leaders require more comprehensive perspectives and therefore need multiple lenses and skills to reframe and to look at old problems in new ways. The definition and item measuring dependent variable EC adoption was adapted after Al-Qirim and Corbitt, (2002) on five-point Likert scale starting with "1" from "connected to the Internet with email but no Web site" to the "5" for "fully integrated Web site".

## Population and Sample

Data for the study was collected in March 2010 by means of the questionnaire shown in the Appendix. *The questionnaire captured the respondent's demographic profile: gender, age, length of experience as business owner, type of business, commencement of business, tech-* nology infrastructure, type of web in the business, number of employees and how much the business uses e-commerce. The behavior perceptual items were measured using five-point scales representing a range from "Never" to "Frequently if not always". As for the Leadership style perceptual items were measured from "Least" to "Best". Every effort was made to ensure an effective response rate; with the use of phone calls, covering letters and responsive questionnaires. A questionnaire survey was conducted on owners/managers' in 300 small and medium enterprises. A total of 250 valid responses were obtained thus making the response rate of 83% sufficient for the descriptive nature of this study. It is interesting to note that the target population is the 6576 SMEs in Brunei Darussalam. Random samples of 300 small and medium enterprises were compiled from a key business directory of Brunei (Goldpages, 2010). This inclusion was based upon those SMEs which at least have the web address regardless of the particular business types.

# Result and Discussion

Data obtained from the survey were analyzed using descriptive statistics, factor analysis as well as correlation analysis using SPSS version 17.

## Background profile

The background data of individual CEO, as well as their organizational profile is summarized in Table 1. Table 1 describes the characteristics of respondents. Majority (61%) is males within age group of 25-35 years and possesses 1-5 years of experience. Majority of the respondents are from wholesales/retailer business sector with a total number of employees ranging 10-50.

## Validity and Reliability

In order to assess the validity and reliability, tests were performed in this study. For getting the reliability of the questionnaire the coefficient of Cronbach's alpha (1951) were taken

## Table 1. Demographical data

| Variable | Description | Percentage |
|---|---|---|
| Gender | Male | 61% |
| | Female | 39% |
| Age | Between 25-30 | 30% |
| | Between 31-35 | 30% |
| | Between 36-40 | 20% |
| | Between 41-45 | 11% |
| | Above 45 | 9% |
| Yearsof experience | 1-5 | 44% |
| | 6-10 | 28% |
| | 11-15 | 6% |
| | More than 15 years | 22% |
| Web presence | Static | 45% |
| | Transitive | 10% |
| | Semi Integrated | 32% |
| | Fully integrated | 13% |
| Type of business | Wholesales/Retailers | 37% |
| | Travel/Shipping | 12% |
| | Manufacturing | 6% |
| | Services/Consulting | 15% |
| | Printing/Media | 4% |
| | Advertising | 2% |
| | Hospitality | 13% |
| | IT Sales & Supplies | 10% |
| | Others | 1% |
| No of Employees | At least 10 | 38% |
| | Between 10-50 | 40% |
| | Between 51-100 | 15% |
| | Above 100 | 7% |
| Use of EC | Very little 10% or less[1] | 23% |
| | Between 11%to 25%[2] | 10% |
| | Between 26%-50%[3] | 23% |
| | Between 51% to 75%[4] | 31% |
| | Above 75%[5] | 13% |

*(1-connected to the Internet with e-mail but no Web site, 2-static Web, 3-interactive Web, 4-transitive Web, 5-fully-integrated Web)*

## Table 2. Descriptive statistics for leadership frames

| | | Mean | Std.dev | Cronbach Alpha($\alpha$) | Bolman & Deal ($\alpha$) |
|---|---|---|---|---|---|
| Leadership Frames | Structural (1) | 4.04 | 0.61 | .92 | .92 |
| | Human (2) | 4.12 | 0.72 | .93 | .93 |
| | Political (4) | 3.48 | 0.64 | .91 | .91 |
| | Symbolic (3) | 3.75 | 0.63 | .93 | .93 |

*(The figures in parentheses represent ranking)*

into account. Minimum Cronbach's alpha value of above 0.90 indicates reliability of the instrument. During the initial screening of conducting reliability tests the four items were dropped because of low correlation and the remaining items were subjected to principal component analysis by using varimax rotation, in addition to considering Kaiser-Normalization as techniques of rotation to examine both the individual items and the relationship among them (Hair et al., 1979). All the four factors explain the 63% of variance suggesting a sufficient validity and parsimony of the instrument. Bolman and Deal (1991) initially reported the reliability of the instrument for field test reported in "images of leadership" (Fears, 2004) represents the survey results from over 1000 respondents in business, education and healthcare organizations. Bolman and Deal assessed the internal consistency (Cronbach alpha) of their instrument and its subscales and the alpha value is provided in Table 2. The Cronbach alpha coefficient of the instrument was compared with previous study and found both to be similar. This comparison indicates that the instrument in this study as reliable.

### Factor Analysis

Factor Analysis is one of the several statistical techniques that were designed to enable the researcher to classify data on several vari-

## Table 3. Result of factor analysis showing leadership behavior

| | | Factor 1 | Factor 2 | Factor 3 | Factor 4 |
|---|---|---|---|---|---|
| HR10 | I show high sensitivity and concern for others' needs and feelings | .70 | | | |
| HR22 | I listen well and am usually receptive to other peoples' ideas and input. | .70 | | | |
| HR14 | I foster high levels of participation and involvement in decisions | .75 | | | |
| ST1 | I think very clearly and logically | | .87 | | |
| ST9 | I approach problems through logical analysis and careful thinking | | .80 | | |
| ST13 | I develop and implement clear, logical policies and procedures | | .82 | | |
| POL3 | I have exceptional ability to mobilize people and resources to get things done | | | .52 | |
| POL311 | I am usually persuasive and influential | | | .75 | |
| POL 23 | I am politically very sensitive and skillful | | | .63 | |
| SYM4 | I inspire others to do their best | | | | .67 |
| SYM 12 | I am able to be an inspiration to others | | | | .58 |
| SYM 24 | I see beyond current realities to generate exciting new opportunities | | | | .65 |
| | Percentages of variance explained | 35.86 | 10.65 | 9.26 | 7.20 |

*HR-human resource frame, ST-structural frame, POL-political frame and SYM-symbolic frame*

ables with reference to a much smaller number of supposed underlying dimensions. So in Exploratory Factor Analysis (EPA) the claim is to determine the number and nature of the factors necessary to account adequately for the correlation in the correlation or R-matrix (Hair et al., 1979). It is further assumed that correlation among the observed variable can be accounted for in term of comparatively few factors (Hair et al., 1979).

The initial version of the instrument was developed to study leadership orientation frames from Bolman and Deal (1991) and the instrument consists of thirty-two items that was further analyzed using Churchill (1979) purification techniques for EPA. By using Churchill's suggestions some of the items were eliminated for the corrected-item-total correlation was less than 0.30 while EPA eliminated those items that loaded on more than one factor with cut-off value of 0.40 or greater. Thus the thirty-two items were reduced to 12-items grouped into four-factors named as structural, human resource, political and symbolic frames. The Kaiser-Meyer-Olkin measure of sampling adequacy was 82%. In this connection several decision rules based on Hair et al., (1979) were used to aid extraction process and to derive these four factors. The rules includes (a) minimum Eigen value of 1.0; (b) simplicity of factor structure and (c) exclusion of single-item factor from the stand point of parsimony. Hair et al., (1979) further suggests that in order to get a power level of 80% at 0.05 significant level a factor loading of 0.50 or higher should be considered as cut-off value. The 12-items together with the corresponding factor loading is shown in Table 3 indicating further that factor loading is quite high and in range from 0.52 to 0.87. These four factors together explained 63% of the total variance. Similar result was attained by Fears (2004) who found that 64% of the variance was explained by the original four-factor solutions of Bolman and Deal's instrument. In factor analysis the ratio of sample size to number of item (10:1) is important and in the study it is high as suggested by Nunnally (1975). The result of factor analysis further satisfies both the convergent and discriminant validity.

### Multiple leadership frames of CEOs

The fundamental assumption of Bolman and Deal (1991) leadership theory is that, for leaders to be considered as effective, leaders must have the ability and should further exercise all four leadership frames. On the contrary, the use of only one or two frames will not be considered as effective leadership. This further elaborates that while using all four frames the CEOs practice the balance approach. Thompson (2000) have created three leadership types, as previously pointed that indicate, the degree to which perception of the behavior of leaders reflected their balanced or unbalanced use of the four leadership frames. He further suggests that leaders who scored above the mean on all four of the Bolman and Deal leadership frame are considered having fully balanced leadership style. In the study about 75% of the CEOs are using all four frames and so are considered to be balanced leaders. Secondly, the leaders

## Table 4. Paired and three frames as exercised by CEOs

| Paired Frames | Mean | Percentage | Rank |
|---|---|---|---|
| ST-HR | 3.81 | 82% | 2 |
| HR-SYM | 3.93 | 86% | 1 |
| ST-POL | 3.57 | 68% | 6 |
| ST-SYM | 3.65 | 72% | 4 |
| HR-POL | 3.70 | 74% | 3 |
| POL-SYM | 3.60 | 66% | 5 |
| Three Frames used | | | |
| ST-HR-POL | 3.71 | 72% | 3 |
| ST-HR-SYM | 3.79 | 78% | 1 |
| ST-POL-SYM | 3.67 | 68% | 4 |
| HR-POL-SYM | 3.76 | 75% | 2 |

*Note: HR-human resource frame, ST-structural frame, POL-political frame and SYM-symbolic frame*

## Table 5. Result of regression analysis

| Variables | Beta | t-value | Significance | Variance |
|---|---|---|---|---|
| *Single-frame used* | | | | |
| HR frame | -.036 | -.215 | .83 | |
| ST frame | -.186 | -1.23 | .21 | |
| POL frame | .094 | .607 | .54 | |
| SYM frame | .222 | 1.18 | .24 | |
| | | | | $R^2 = 9\%$ |
| *Paired frames used* | | | | |
| ST-HR | -.073 | -.253 | .80 | |
| ST-POL | -.250 | -.693 | .49 | |
| HR-SYM | .391 | 2.21 | .04* | (Significant) |
| ST-SYM | .108 | 1.06 | .30 | |
| HR-POL | .420 | 1.17 | .24 | |
| POL-SYM | -.505 | -1.41 | .16 | |
| | | | | $R^2 = 11\%$ |
| *Multiple (three) frames used* | | | | |
| ST-HR-POL | -.510 | -.995 | .32 | |
| ST-HR-SYM | -.155 | -.380 | .70 | |
| ST-POL-SYM | .195 | .441 | .66 | |
| HR-POL-SYM | .568 | 1.51 | .13 | |
| | | | | $R^2 = 9\%$ |
| *All four frames used* | | | | |
| ST-HR-POL-SYM | -.116 | -1.15 | .25 | |
| | | | | $R^2 = 12\%$ |

*Dependent Variable (DV): EC Adoption   F= .89, p>.05   Durbin-Watson= 1.39*

who scored above the mean on any of three frames of four of Bolman and Deal leadership continuum are considered as moderately balanced leadership style and finally CEOs in the category that scored above the mean on only one or two of the four frames are considered having unbalanced leadership style. Table 4 further highlights the paired and multiple (three) frames used by Bruneian CEOs. This provides support to the first two research questions.

### Regression Analysis

The regression analysis was conducted to find out the relationship between the various combinations of leadership frames and e-Commerce adoption. In line with the principles of multivariate data analysis, data was screened for outliers. Cases with standard deviation greater than 2.00 and cases with missing values were removed. The result of regression analysis

is presented in Table 5. The model has moderate *F* ratio indicating low to moderate fit of the model. The Beta's (standardized coefficient) indicate the relative importance of the independent variables in explaining the adoption of EC by SMEs. Durbin-Watson test for autocorrelation indicated the absence of correlated residuals.

From Table 5 it is evident that only one of the leadership frames (paired) of CEOs is significant predictor of EC adoption. Moreover the maximum 12% of the variance is shared by these variables that further indicate the low predicting power of the model. Thus in their final analysis this answers the third research question.

### Discussion

The findings of this pioneering study among CEOs leadership frames and EC adoption reflect a unique finding and contribute to the growing body of knowledge, supporting the use of Bolman and Deal's (1991) work in an effort to understand the cognitive complexity of leadership.

At the outset, the result of factor analysis has reduced the thirty-two items to 12-items solution grouped into four factor solution and has further supported the parsimony of the instrument. The factor analysis result also provide a convergent and discriminant validity. The instrument therefore found to be parsimonious within the context of SMEs.

Secondly, the results further support Bolman and Deal's (1991) that in order to be effective leader, the leader must exercise all four-frames. Our study result indicates that 70% of the CEOs are exercising all four-frames. Interestingly, CEOs who used a single frame, among them HR frame is most commonly used by 90% of the CEOs followed by symbolic (88%), structural (80%) and finally political frame is exercised by 75% of the CEOs.

There were six different paired frames (ST-HR, HR-SYM, ST-POL, ST-SYM, HR-POL, POL-SYM) and four different multi-frame combinations (ST-HR-POL, ST-HR-SYM, ST-POL-SYM, and HR-POL-SYM). Table 4 reflects the self-reported single, paired, multiple frames (three) along with their ranking. In paired frame combinations, HR-SYM ranks highest with 86% of the CEOs using that frame, followed by ST-HR (82%), HR-POL (74%), ST-SYM (72%), POL-SYM (66%) and finally ST-POL is used by 68% CEOs. This provides an interesting dimension of leadership orientation. Bolman and Deal's (1991) assertion is that leaders that follows structural and human resource frames frequently are considered as effective managers and those with high score on political and symbolic frames are considered as effective leaders. Our result shows a good combination of the leadership orientation that the CEOs are good blend of both effective managers and effective leaders. This is further supported by the facts that while answering a self-reported question as "how you rate yourself as effective managers or effective leaders". The mean for effective managers is 3.60 and mean of effective leader is 3.65, and t-test results did not find any difference in the mean of EC adoption (F = 1.30, p>.05). However, we certainly agree with Bolman and Deal (1991) that utilizing the leadership orientation in a multi-frame would yield the most effective leadership dimension. The result further supports the Bolman and Deal (1991) and Bensimon (1989) with 75% of CEOs utilizing all four-frames.

The major focus of this study was to examine the relationship between current level of E-Commerce utilization and various leadership frames used by the CEOs of Bruneian SMEs. This was accomplished through regression analysis. The result indicates that only one pair (HR-Symbolic) out of six paired frames found to be significant predictor of EC adoption among Bruneian SMEs. This sole significance of leadership frames with the dependent variable EC adoption further poses several questions. However, it can be safely deduced that all others leadership frames either moderately or fully balanced are not contributing towards EC adoption. The result support Sasnett (2006) who found 40% of the leaders reported using two frames, combination of HR and Symbolic. The finding partially support several studies on the leadership that suggest the strong

relationship exists with the CEO leadership and organizational productivity (O'Regan and Ghobadian, 2007), and specifically to the role of CEOs toward technology and EC adoption (Sophonthummapharn, 2005), and consultative leadership style is significant with EC adoption (Scupola, 2003). The results also partially in line with Chang, (2005) that symbolic and HR frames are highly correlated with the four domains of IT such as technology infrastructure, technology utilization, technology support and administrative support. The significance of HR and Symbolic frames in the study further demonstrates the style that is dominant by the effective managers. In fact, CEOs of Bruneian SMEs are exercising more soft skills that can be more effective at the later stage of the technology adoption. However, at the early stage of technology adoption such as building a technology infrastructure and providing technology and administrative support, the use of the structural and political frames are more appropriate. There is a strong need that CEOs should adjust their leadership frames to fit-in the various situations related to each stage of EC adoption.

Another reason for this contrasting result of leadership frames with EC adoption is might be due to the fact that mean use of EC adoption among these SMEs are below the mean (2.77) indicating that most of the Bruneian SMEs are at infant stage and practicing static Web to transitive Web activities. Therefore the adoption of EC does not depend solely on the leadership frames. It is evident from the results that decision to adopt EC within the context of SMEs is a combination of several technological, organizational, environmental and cultural factors. Prior studies on EC adoption indicate these factors (Seyal and Rahman, 2003; Looi, 2005; Seyal et al., 2007; and Seyal, 2009). The results of these studies highlight the slow adoption of EC among Bruneian SMEs. It might be due to the reason that EC among these SMEs did not appear to be significant. The Bruneian CEOs are not aware of the impact of EC on the businesses and had no experience in integrating EC adoption for competitive advantage (Seyal and Rahman, 2003). The EC adoption in SMEs further require that CEOs must be provided with

additional education to realize the influence of EC adoption and government bodies in this regards develop a proactive approach and further establish a discussion forum where the CEOs of these SMEs can learn from the best practices.

# Conclusion

This pioneering research contributes to knowledge and gives some interesting insight into the role of the leadership in EC adoption. The study provides answers to all the four research questions. The research is significant and discusses the CEOs leadership orientation frames as majority of them are using multiple or balanced frames. Secondly, Bolman and Deal's instrument is found to be a reliable instrument with an internal consistency and appropriate to measure leadership orientation among CEOs within the context of SMEs. Thirdly the result of factor analysis supported the four-factor solution; however, the original 32-items were classified into 12-items, so a shorter version of the instrument could further be used within this context. Finally, the research has answered all the four questions that were proposed in section two.

However, the use of only one paired (moderately balanced) frames was found significant towards the EC adoption. While most of the previous researches have focused that balanced leadership orientation has strong impact on the technology adoption, the study results partially support the previous findings. We finally recommend that future research endeavors with additional organizational, environmental and technological variables might bring some interesting findings and could further change the results. Similar studies should be conducted other than SMEs to find out what kind of leadership styles is most appropriate for the other e-businesses.

### *Limitations*

Like every research, present study is not free from its limitations. The study does not take into account the demographical variables to study the leadership dimension. The inclusion

of demographical factors might further change the findings. Secondly, racial ethnic (Chinese, Indian, Malays) CEOs were not considered in this study. The inclusion of this variable might add new dimensions to the study and will improve the total shared variance. Thirdly, most of the questions used in this study are self-reported; the subordinate responses were not included. The inclusion of subordinate's responses might bring different insights. This non-inclusion of the subordinate version was mainly due to the facts that it was found in the initial version of the research design that most of the subordinates or employees of these SMEs are high school graduates. The subordinate might not be able to perceive their CEOs' leadership style and provide misleading answers, thus the subordinate responses were dropped. Fourthly, the study is limited by the use of only one instrument to measure leadership style i.e. the Bolman and Deal's leadership orientation survey instrument. However, more appropriate instrument to measure EC adoption representing different stages will contribute significantly to the practice. Finally, the results of this research should be carefully generalized as the cultural dimensions may alter the findings.

### Lesson learnt

The evidence from the study has provided an insight of the applicability of the paired frames (HR-SYM) that are significantly related to EC adoption among the surveyed SMEs. This further elaborates that by approaching these CEOs through professional development workshops and senior management training programs, the task of EC adoption could further be geared up. The study has provided evidence that by using the paired-frames these CEOs are exercising both managerial as well as leadership dimensions. This is true to the very distinct nature of the SMEs where CEOs are directly involves not only in running daily day-to-day operation but also taking major business decisions. So any serious and concerted efforts by external agencies such as Brunei Ministry of Industry

and Natural Resources (MIPR) could further exhibit balanced leadership frames to enhance organizational productivity through investment in technology. This will help in promoting the successful adoption of technology in Bruneian SMEs and any further endeavor would definitely promote the e-business applications especially the e-Commerce adoption among SMEs.

### Practical Implications

The research contributes to knowledge and gives some interesting insight into the role of the leadership in EC adoption. The findings of this study have implications both for the CEOs' of these SMEs and for the relevant authorities responsible for preparing policy framework for the new technology adoption among SMEs. For instance, the relevant authorities might further educate the CEOs to explore how they generally define organizational goals, establish roles to the subordinates and allocate resources for the technology adoption. The research results may help CEOs better understand the influence of their leadership on the adoption of technology adoption. CEOs can benefit from knowing what leadership styles are more likely to promote adoption of technology.

The slow intake of EC adoption among SMEs should be considered seriously by the CEOs as majority of them have balanced leadership orientation, deemed necessary pre-requisite for enhancing the organizational productivity. The CEOs should implies the allocation of resources and investment in technology is more important than just developing and maintaining the static Web sites and this further demand strategic planning. The CEOs should realize the importance of "fit" between technology and business. With the CEOs' balanced leadership orientation, they could further be trained as technological savvy leaders so that they must be able to link the technology with the organizational goals and to explore other venues of business and technology that could further provide a competitive advantage.

# Reference

Ahn, J.H., & Kwon, S. (2000), The Effect of CIO's Transformational Leadership in Empowerment and Leadership Performance: An Analysis using Structural Equation Modeling, *Proceedings of Pacific Asia Conference,* Seoul, Korea, 791-800.

Almaraz, J. (2009), Effective Change Leadership in Small and Medium Sized Organization, *Working paper College of Business Administration, California State Polytechnic University*, Pomona, Ca. 91780.

Al-Qarim, N., & Corbitt, B. (2002), An Empirical Investigation of E-Commerce Adoption in Small to Medium sized Enterprises in New Zealand, *Proceeding of 6th Pacific-Asia Conference on Information Systems (PACIS 2002),-The next e-what? For business and community,* Tokyo, Japan, Sept 2nd-4th, 343-362.

Bass, B. M., & Avolio, B.J. (1990), The Implication of Transactional and Transformational Leadership for Individual, Teams and Organizational Development, *Research in Organizational Behavior*, 4, 231-272.

Bedore, M. (2000), A Multi-frame Analysis of Leadership Orientation and its Relationship to the Leadership Effectiveness and Management Effectiveness of Human Resource Executives *Doctoral Dissertation, Nova South-Eastern University, USA.* Dissertation Abstracts International, 60 (7-A), 2569.

Bennis, W., & Nanus, B. (1985), *Leaders: The Strategies for Taking Charge*, NY: Harper & Row.

Bensimon, E.M. (1989), The Meaning of Good Presidential Leadership: A Frame Analysis, *Review of Higher Education*, 12, 107-123.

Bigham, G. (1999), Preferred Leadership Frames of Texas Principals Implementing the Professional Development and Appraisal, *Doctoral Dissertation*, Texas Tech University, *Digital Dissertation* AAT: 9951522.

Bolman, L., & Deal, T. (1984), *Modern Approaches to Understanding and Managing Organizations,* San Francisco, CA: Jossey-Bass.

Bolman, L., & Deal, T. (1991), Images of Leadership: Occasional Paper No. 7 The *National Center for Educational Leadership,* Nashville, Tennessee. ERIC Document Number: 332345.

Bolman, L. & Deal, T. (1997), *Reframing Organizations*, San Francisco: Jossey Bass.

Chang, T. (2005), Department Chairs Leadership and Integration of Instructional Technology into Teaching, *Doctoral Dissertation*, West Virginia University, publication no: 3152254, www.gradwork.umi.com).

Chau, P.Y.K. (2001), Influence of Computer, Attitude and Self-Efficacy on IT Usage Behavior, *Journal of End-User Computing,* 13, 26-33.

Churchill, G.A.J. (1979), A Paradigm for Developing Better Measures of Marketing Constructs *Journal of Marketing Research,* 15 (Feb), 64-73.

Cote, A. (1999), Leadership Orientation Frames of Florida Elementary Principals in Relationship to School Context and Principal Characteristics, *Doctoral Dissertation*, the University of Florida, *Digital Dissertation*, AAT: 995656.

Cope, O., & Waddell, D. (2001), An Audit of Leadership Style in E-Commerce, *Management Auditing Journal*, 16(9), 523-529.

Cope, O., & Waddell, D. (2004), Leadership in E-businesses in M. Singh and D. Waddell (Ed), *E-businesses Innovation and Change Management*, 19-37, Hershey, PA: Idea Group Publishing.

Conger, J. A., & Kanungo, R.N. (1987), Toward a Behavioral Theory of Charismatic Leadership in Organizational Settings, *Academy of Management Review*, 12, 637-647.

Cragg, P. B., & King, M. (1993), Small Firm Computing: Motivators and Inhibitors, *MIS Quarterly*, 17, 47-60.

Cronbach, L. J. (1951), Coefficient Alpha and the Internal Structure of Test, *Psychometrika,* 16, 297-334.

Daft, R.L., & Weick, K. E. (1984), Toward a Model of Organization as Interpretation Systems, *Academy of Management Review*, 9, 284-295.

Davenport, J. (2010), Leadership Style and Organizational Commitment: The Moderation Effect of Locus of Control, *Proceedings of ASBBS Annual Conference in* Las Vegas, USA. Feb, 271-290.

Drew, S. (2003), Strategic Uses of E-Commerce by SMEs in the East of England, *European Management Journal,* 21(1), 79-89.

Durocher, E. (1996), Leadership Orientation of School Administrators: A Survey of Nationally Recognized School Leaders, *Doctoral Dissertation*, Colombia University Teachers College, *Digital Dissertation*: AAT 9620148.

Dunphy, D. & Stace, D. (1990), *Under New Management-Australian Organizations in Transition,* Sydney: McGraw-Hill.

Eckeley, M. (1996), The Relationship between Teachers' Empowerment and Principal Leadership Styles, *Doctoral Dissertation*, the Pennsylvania State University, *Digital Dissertation*: AAT 9802625.

Eppal, R. G. (2004), Leadership Style and Organizational Culture, *Doctoral Dissertation,* http://scholar.lib.vt.edu/theses/available/etd-02182004-165946/unrestricted/DissertationFinalDoc.pdf.

Fears, A. A. (2004), A Study of School-Based Leadership and the School Improvement Process for Elementary Schools that Have Demonstrated High and Low Student Achievement, *Doctoral Dissertation*, Union Institute, Baltimore, Maryland, USA.

Fichman, R. G. (2004), Going Beyond the Dominant Paradigm for Information Technology Innovation Research: Emerging Concepts and Methods, *Journal of AIS,* 5(8), 1-30.

Freese, J. & Rivas, S. (2006), Cognition, Personality and Individual Response to Technological Change: The Case of Internet Adoption, *CDE Working Paper No: 2006-07,* Center for Demography and Ecology, University of Wisconsin-Madison, USA.

Goldpages (2010), Brunei Online Yellow Pages Directory Of Businesses (www.goldpages.com.bn).

Grandon, E. & Pearson, J. (2003), Strategic Value and Adoption of Electronic Commerce: An Empirical Study of Chilean Small and Medium Sized Business, *Journal of Global Information Technology Management*, 6(3), 22-43.

Hair, J.F., Anderson, R. E., Tatham, R.L. & Black, W.C. (1998), *Multivariate Data Analysis with Readings* .Upper Saddle River, NJ: Prentice-Hall.

Harris, R. (1999), Attitudes towards End-User Computing: A Structural Equation Model, *Behavior and Information Technology*, 18(2), 109-125.

Harlow, J. (1994), Educational Leadership: A Frame Analysis, Doctoral Dissertation, SeattleUniversity, *Digital Dissertation:* AAT 9427416.

Howell, J.M., & Higgins, C.A. (1990), Champions of Technological Innovation, Administrative Science Quarterly, 35, 317-341.

Hoy, W., & Miskel, C. (1991), *Educational Administration: Theory, Research and Practice* (3rd Ed),. NY: Random House.

Iacovou, C., Benbasat, I. & Dexter, A. (1995), Electronic Data Interchange and Small Organizations: Adoption and Impact of Technology, *MIS Quarterly*, 1995(Dec), 465-485.

Jones, J., & Bearley, W. (1986), *Participative Management Profile. King of Prussia,* P.A: Organizational Design and Development.

Kotter, J. (1990), *A Force for Change: How Leadership differs from Management,* NY: Free Press.

Kuan, K.K.Y., & Chau, P.Y.K. (2001), A Perception-based Model for EDI Adoption in Small Business using a Technology, Organizational and Environment Framework, *Information and Management*, 38, 507-521.

Lertwongsatien, C., & Wongpinanwatana, N. (2003), Electronic Commerce Adoption in Thailand: An Empirical Study of Small and Medium Organizations, *Journal of Global Information Technology Management,* 6(3), 67-83.

Lewin, A.Y., & Stephens, C.U. (1994), CEO Attitudes as Determinants of Organization Design: An Integrated Model, *Organization Studies*, 15(2), 183-212.

Looi, H. C. (2005), E-Commerce Adoption in Brunei Darussalam: A Quantitative Analysis of Factors Influencing its Adoption, *Communications of the AIS*, 15, 61-81.

Marcati, A., Guido, G., & Peluso, A.A. (2008), The Role of SME Entrepreneurs'' Innovativeness and Personality in the Adoption of Innovations, *Research Policy*, 37(9), 1579-1590

Mawhinney, C.H., & Lederer, A.L. (1996), A Study of Personal Computer Utilization by Managers, *Information and Management*, 18, 369-376.

Melone, N. P. (1990), A Theoretical Assessment of the User Satisfaction Construct in Information System Research, *Management Sciences*, 36(1), 76-91.

Miller, P. (1998), Directors/Chairpersons of Occupational Therapy Professional Programs: A Study of Leadership in Higher Education, *Columbia University Teachers College*.

Mirchandani, D., & Motwani, J. (2001), Understanding Small Business Electronic Commerce Adoption: An Empirical Analysis, *Journal of Computer Information Systems,* Spring, 70-73.

Mosser, N. R. & Walls, R. T. (2002), Leadership Frames of Nursing Chairpersons and Organizational Climate in Baccalaureate Nursing Programs, *Southern Online Journal of Nursing Research* (www.snrs.org), 3(2).

Nunnally, J.C. (1978), *Psychometric Theory,* NY: McGraw-Hill.

OECD (2000), ICT and Electronic Commerce for SMEs: Progress Report, *Directorate for Science, Technology and Industry Committee on Industry and Business Environment,* Italy.

Ogawa, R.T., & Bossert, S.T. (1995), Leadership and Organizational Quality, *Educational Administration Quarterly*, 31(2), 224-243.

O'Regan, N., & Ghobadian, A. (2007), Leadership and its Impact on the Use of Process Technologies and Management Practices in the Manufacturing Sector, *International Journal of Business Performance Management*, 9(4), 419-433.

Pfeffer, J. (1981), Management as Symbolic Action: The Creation and Maintenance of Organizational Paradigms. In B. Staw (Ed), *Research in Organizational Behavior,* 1-52, Greenwich, CT: JAI.

Palvia, P. & Palvia, S. (1999), An Examination of the IT Satisfaction of Small Business Users, *Information and Management,* 35(3), 127-137.

Papadakas, V. & Bourantas, D. (1998), The CEO as Corporate Champion of Technological Innovation: An Empirical Investigation, *Technology Analysis and Strategic Management,* 10(1), 89-109.

Rogger, E. M. (1995), *Diffusion of Innovation* (4th Ed), NY: The Free Press.

Sarros, J. D. & Santora, J. C. (2001), The Transformational, transactional Leadership Model in Practice, *Leadership and Organizational Development Journal*, 22(8), 383-393.

Sasnett, B. (2006), Leadership Styles of Interdisciplinary Health Science Education Leaders of Quentin Burdick Programs, *Doctoral Dissertation*, East Carolina University.

Sasnett, B., & Ross, T. (2007), Leadership Frames and Perceptions of Effectiveness among Health Information Management Program Directors, *Perspectives in Health Information Management,* 4(8).

Scupola, A. (2003), The Adoption of Internet Commerce by SMEs in the South of Italy: An Environmental, Technological and Organizational Perspective, *Journal of Global Information Technology Management,* 6(1), 52-62.

Scupola, A. (2009), Exploring Leadership in E-Commerce Adoption in Australian SMEs in P.Yoong (Ed), *Leadership in the Digital Enterprises: Strategies for Planning and Training,* IGI, Global.

Seyal, A.H., & Rahman, M.N. (2003), A Preliminary Investigation of E-Commerce Adoption in Small and Medium Enterprises in Brunei, *Journal of Global Information Technology Management,* 6(2), 6-26.

Seyal, A.H., Rahman, M.N., & Tajuddin, S.T. (2007), Internet Users Behavior Model: A Structural Equation Approach, *Proceedings of 13th Asia Pacific Management Conference,* Melbourne, Australia, 210-221.

Seyal, A.H. (2009), Re-examining Electronic Commerce Adoption among Bruneian SMEs, in proceedings of 6th International Conference on Information Technology in Asia (CITA), 2009, Hilton Hotel, Kuching, Sarawak Malaysia. July 6th-9th.

Sophonthummapharn, K. (2005), Leadership Styles and E-Commerce Adoption: An Analysis of Thai Food Exporters Masters Theses, *Blekinge Institute of Technology*. kittipong@hotmail.com

Stodgill, R.M. (1981), Traits of Leadership: A follow-up to 1970 in B. Bass (Ed), *Handbook of Leadership*, NY: Free Press.

Stodgill, R.M. (1974), *Handbook of Leadership: A Survey of Theory and Research*, NY: Free Press.

Thong, J.Y.L. (1999), An Integrated Model of IS Adoption in Small Businesses, *Journal of Management Information Systems*, 15(4), 187-214.

Thong, J.Y.L., & Yap, C.S. (1995), CEO Characteristics, Organizational Characteristics and Information Technology Adoption in Small Businesses, *OMEGA, International Journal of Management Sciences*, 23(4), 429-442.

Thompson, M.D. (2000), Gender, Leadership Orientation and Effectiveness: Testing the Theoretical Models of Bolman and Deal and Quinn, *Sex Roles.* 42 (11/12), 969-992.

Tosi, H., Rizio, J., & Carroll, S. (1990), *Managing Organizational Behavior*, Cambridge, MA: Ballinger Publishing Co.

Turley, C. (2004), A Frame Analysis of Radiation Therapy Program Director Leadership, *Radiation Therapist*, 13(1), 15-19.

Walsham, G. & Han, C. (1991), Structuration Theory and Information Systems Research, *Journal of Applied Systems Analysis*, 17, 77-79.

Walsham, G. (1997), Actor-Network Theory and IS Research: Current Status and Future Prospect, *IEIP TC8-WG8.2, International Conference on Information Systems and Qualitative Research*, London: Chapman Hall.

Yap, C.S., Soh, P.P., & Raman, K.S. (1992) Information Systems Success Factors in Small Business, OMEGA-International Journal of Management Sciences, 20(5/6), 597-609.

Yukl, G. (1989), *Leadership in Organization*. Englewood Cliffs, NJ: Prentice-Hall.

# Appendix

**Items Measuring CEOs' Behavior**

Please rate your level of satisfaction with the following aspects of this site
Scale:
1 = Never
2 = Occasionally/once in a while
3 = sometimes
4 = fairly often
5 = frequently if not always

1. *I think very clearly and logically*

2. *I show high levels of support and concern for others*

3. *I have exceptional ability to mobilize people and resources to get things done*

4. *I inspire others to do their best*

5. *I strongly emphasize careful planning and clear time lines*

6. *I build trust through open and collaborative relationships*

7. *I am a very skilful and shrewd negotiator*

8. *I am highly charismatic*

9. *I approach problems through logical analysis and careful thinking*

10. *I show high sensitivity and concern for others' needs and feelings*

11. *I am unusually persuasive and influential*

12. *I am able to be an inspiration to others*

13. *I develop and implement clear, logical policies and procedures*

14. *I foster high levels of participation and involvement in decisions*

15. *I anticipate and deal adroitly with organizational conflict*

16. *I am highly imaginative and creative*

17. *I approach problems with facts and logic*

18. *I am consistently helpful and responsive to others*

19. *I am very effective in getting support from people with influence and power*

20. *I communicate a strong and challenging sense of vision and mission*

21. *I set specific, measurable goals and hold people accountable for results*

22. *I listen well and am unusually receptive to other people's ideas and input*

23. *I am politically very sensitive and skilful*

24. *I see beyond current realities to generate exciting new opportunities*

25. *I have extraordinary attention to detail*

26. *I give personal recognition for work well done*

27. *I develop alliances to build a strong base of support*

28. *I generate loyalty and enthusiasm*

29. *I strongly believe in clear structure and a chain of command*

30. *I am a highly participative manager*

31. *I succeed in the face of conflict and opposition*

32. *I serve as an influential model of organizational aspirations and values*

# Instructions to Contributors

## Aim and Scope

The South East Asian Journal of Management (SEAM) aims to present the latest thinking and research that tests, extends, or builds management theory and contributes to management practice. Contents of the Journal will be of interest to management teachers, students and researchers as well as to practicing managers. Journal materials should be analytical rather than descriptive.

Whilst a major focus of the journal is on management issues related to South East Asia, increasingly global concerns and conceptual topics will be covered also. The journal does not take a narrow view of business and management. Manuscripts from other disciplines might be published if considered to offer significant contributions to solve existing managerial problems.

In order to be published in SEAM, a manuscript must make strong empirical and theoretical contributions to the field of management. Thus, preference is given to submissions that test, extend, or build strong theoretical frameworks while empirically examining issues with high importance for management theory and practice.

## Manuscripts

Manuscripts must be double-spaced on 8 1/2 x 11" paper. Body text should be in Times New Roman, font size 12. Manuscript length should be reasonable for the contribution offered. Soft copy of the article should be sent to:

Sari Wahyuni, Ph.D
Editor in Chief
The South East Asian Journal of Management
Departement of Management
Faculty of Economics Universitas Indonesia
Departement of Management Building,
Kampus Baru UI,
West Java, Indonesia
Phone : +62-21-7272425 ext 503
Fax : +62-21-7863556
Email: seam@ ui.ac.id

Manuscripts are reviewed by the editor, members of the SEAM Editorial Review Board, and occasional reviewers. The author's name and affiliation are removed before reviewing in order to ensure objectivity. Please do not identify the author(s) in the body of the paper either directly or by citation. Manuscripts with poor English will be directed to an appointed Language Editing partners before further review process can be done.

**With the submission of a manuscript, the following three items should be included in a separate page:**

1. Cover page showing title, each author's name, affiliation, complete address, telephone and fax number, and the category of the article. Select one category from the following: Finance, Marketing, Human Resource, Innovation, Knowledge Management, Strategic, and Organization.
2. Abstract of up to 150 words.
3. Keywords, approximately five to seven words.

# Heading

Manuscript should be divided into five heading, i.e. Introduction, Literature Review, Research Method, Result and Discussion and Conclusion. Each heading should be in Times New Roman, bold, font size 14. Sub-heading should be in Times New Roman, bold-italic, font size 12.

# Mathematical Notation

Notations should be clearly explained within the text. Equations should be centered on the page. If equations are numbered, type the number in parentheses flush with the right margin. Unusual symbols and Greek letters should be identifed. For equations that may be too wide to fit in a single column, indicate appropriate breaks.

# Table and Figures

Indicate table placements within text. Camera-ready tables should be typed flush with the left-hand margin and have proper labeling of sources, column headings, and other notations. Once the manuscript has been accepted for publication, complex tables and figures (diagrams, charts, graphs, etc.) should be prepared professionally for camera-ready reproduction.

# References

Reference citations within the text should consist of the author's last name and date of publication, without punctuation, enclosed within parentheses, and should be inserted before punctuation and/or at a logical break in the sentence. If several citations are needed, separate them with semicolons, and list alphabetically. If two or more works by an author have the same year, distinguish them by placing a, b, etc. after the year.

References should be double-spaced and attached on a separate page. Works by single author, *list chronologically*; two authors, alphabetically and then *chronologically*; three authors, the same; four or more, *list chronologically*. References should be in the following:

**Books:**
Bagozzy, R.P. (1980), *Causal Models in Marketing*, New York: Wiley.

**Journals:**
Singh, J. (1991), Understanding the Structure of Consumers' Satisfaction Evaluations of Service Delivery, *Journal of the Academy of Marketing Science*, 19 (Summer), 223-244.

**Three or More Authors:**
Zeithaml, V.A., Berry, L.L., & Parasuraman, A. (1993), The Nature and Determinants of Customers Experiences of Service, *Journal of the Academy of Marketing Science,* 21 (Winter), 1-12.

**Article in a Book Edited by another Author:**
Levitt, T. (1988), The Globalization of Markets, in *Multinational Marketing Management*, Robert, D.B., & Quelch, J.A. (Eds.), Reading, MA, Addison Weley, 186-205.

**Unpublished Dissertations:**
Paterson, K.S. (1985), The Effects of Bilingual Labels in Buyer Behaviour, *Dissertation*, University of California at Irvine.

A copy of the SEAM Journal style sheet is available from the editor on request. For further information, please visit our website **http://seam.pascafe.ui.ac.id or http://journal.ui.ac.id/tseajm**

# About MRC

The Management Research Center (MRC) laboratory was created in March 2006 due to the particular reason of relative weakness on management research in Indonesia. MRC is national research center dedicated to contribute the theoretical, empirical, and practical research in recent management issues.

The intention is not only to stimulate research and discussion within scholarly circles, but also to enhance business community and public awareness to stimulate thinking on and exploring solutions in management issues.

The MRC is placed to assist local, regional and international scholar and other researcher that provides a congenial and stimulating intellectual environment, encouraging the fullest interaction and exchange ideas.

To achieve these aims, the MRC conducts a range of research programs; holds public lecturers, seminars, workshops, and conferences; publishes research journals and books, support research facilities, including data, financial subsidy and library collections.

## Research

Research within MRC covers the fields of interest in:
- Business Policy & Strategy
- Entrepreneurship
- Finance and Banking
- Gender and Diversity in Organizations
- International Management
- Management Education & Development
- Operations Management
- Organization Development & Change
- Organization & Management Theory
- Organizational Behavior
- Research Methods in Management
- Social Issues in Management
- Technology & Innovation Management

## Activities

MRC has a program of public lecturers, seminars, workshops, and conferences, organized independently or in collaboration with other research organization and also with private sectors. The scope of these ranges activities from informal discussion group to major international events.

Especially for the public lecturer, MRC invites and opens the opportunity for distinguish professor, leaders and CEO of the companies to share their knowledges and their experiences.

## Publications

To facilitate timely dissemination of research and commentaries on recent and current developments, MRC produce monographs under the Working Paper Series.

MRC also publishes academic journals which is called The South East Asian Journal of Management (SEAM), Indonesia Capital Market Review (ICMR) and Asean Marketing Journal (AMJ).

## Library

The MRC library collaborates with the Graduate School of Management, Faculty of Economics, University of Indonesia. This library has many excellent collections of management studies in Bahasa Indonesia and English, in print and multimedia formats.

## Contact us

**Management Research Center (MRC)**

Department of Management
Faculty of Economics and Business,
Universitas Indonesia

Department of Management  Building 2nd floor.
Kampus Baru UI Depok,
West Java, Indonesia 16424
Phone  : 021- 7272425 ext 503
Fax      : 021- 7863556
E-mail  : mrc@ ui.ac.id

http://pascafe.ui.ac.id
http://seam.pascafe.ui.ac.id