

# Journal *of* Multidisciplinary Research



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# Journal of Multidisciplinary Research

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## Mission Statement

The mission of the *Journal of Multidisciplinary Research* is to provide a venue for academics, students, and practitioners to publish current and significant research as well as other publication activities. The *Journal of Multidisciplinary Research* accepts submissions of empirical and conceptual research that tests, extends, or builds leadership theory and contributes to leadership and business practices as well as other current research topics.

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## Editorial

Ever since the *Journal of Multidisciplinary Research* (JMR) started, our primary goal has been to publish quality feature and research articles on a variety of topics while ensuring our commitment to academic and professional excellence.

As part of this strategy, I am proud to announce we recently signed a licensing agreement with ProQuest, a global leader in specialized information resources and technologies. ProQuest is a great international partner that connects people and information, and, as one of the world's most important search engines, it helps us provide a global venue for academics and practitioners for research and publication activities. We will continue to strive to make each issue of the JMR interesting and valuable to our readers and contributors and to academia in general, while continually committing to our core values. As Deming once said, "Improvement is a never ending process."

This issue of the peer-reviewed, St. Thomas University *Journal of Multidisciplinary Research* (Volume 2, Issue 2) contains five articles, two book reviews, and one student article in our "student corner."

Winston Churchill once said, "The empires of the future are the empires of the mind." I hope the JMR will help provide a venue for such endeavors and, in the process, develop ethical leaders for our global community.

All the best,

Hagai Gringarten

*Editor*



# **Perceptions of Exertive Pain, Attention Allocation, and Task Adherence in Patients with Fibromyalgia using Imagery**

**Selen Razon, Guler Aarsal, Tonya Nascimento,  
Emily Simonavice , Lael Gershgoren,  
Brittany Loney, Lynn Panton,  
and Gershon Tenenbaum**

## **Abstract**

The study aimed at testing the role of dissociative imagery on perceived levels of exertive pain, attention allocation, and adherence to task-performance across a 20% handgrip-squeezing task in women with Fibromyalgia (FM). Nineteen patients diagnosed with FM were randomly assigned to two groups and performed a handgrip-squeezing task. Subsequent to determining the women's maximal squeezing capacity, they performed a 20% max squeezing-task under one of the two conditions: imagery use (n= 10) and descriptive writing (n=9) until volitional fatigue. Ratings of perceived exertion and attention strategies were measured and recoded at 30s intervals. Results revealed that women with FM developed higher self-efficacy for the squeezing task, tended to squeeze the dynamometer for longer time, but were similar to the descriptive writing group in exertive-pain perception, rating of perceived exertion, and attention allocation during the squeezing task. However, the women using imagery shifted to associative mode faster than their counterparts indicating earlier awareness to bodily sensations. Larger-scale research is needed to study the effects of imagery on individuals with chronic pain syndromes.

## **Perceptions of Exertive Pain, Attention Allocation, and Task Adherence in Patients with Fibromyalgia using Imagery**

Five million adults are estimated to suffer from Fibromyalgia (FM) in the United States (Lawrence et al., 2008). Major symptoms of FM include pervasive pain, decreased pain threshold, sleep troubles, significant fatigue, stiffness, and mood disturbance as well as irritable bowel syndrome, headache, and paresthesias (Wolfe, 1996). Comorbidities with other somatic and mental disorders are also common with FM (Henningsen, Zimmermann, & Sattel, 2003). The American College of Rheumatology (ACR) diagnostic criteria for FM consists of widespread pain for at least 3 months, with soreness on palpation of at least 11 of 18 specific tender points (Wolfe et al., 1990). Consequently, FM is associated with extensive use of health care services and considerable financial burden. To achieve both medical and financial relief, effective treatment interventions are needed for individuals afflicted with FM (Robinson & Jones, 2006).

Dual/integrative modalities are generally viewed as best treatment modalities for FM. Specifically, pharmacological interventions are used to aid specific symptom relief (Clauw &

Crofford, 2003). Non-pharmacological interventions are not used to treat specific tender points, but rather aid in reducing overall pain and improving physical functioning (Hakkinen, Hakkinen, & Alen, 2001). Traditional pharmacological interventions such as the use of tricyclic antidepressants, non-steroidal anti-inflammatory and antiepileptic drugs, sedatives, muscle relaxants, and opiates, however, were found to (a) result in limited symptom relief for less than 50% of this population and (b) cause side-effects, such as weight gain, morning “hangover,” gastrointestinal issues, and increased drug tolerance (Sewitch et al., 2004). Due to side-effects of drugs, a noncompliance trend to medication in the FM population has been observed (Sewitch et al., 2004).

Accounting for these observations, non-pharmacological/alternative medicine interventions such as resistance training (Panton et al., 2009), and/or cognitive-behavioral therapy (CBT; Peterson, 2007) have increased in popularity. One survey (Eisenberg et al., 1998) indicated that 91% of individuals with FM reported using some form of alternative medicine as compared to 42% of the general population. Among alternative medicine approaches, exercise (aerobic exercise with and without additional strength and flexibility training) for FM has received highest support from the American Pain Society (Burckhardt et al., 2005). A number of researchers have established further the ground for the beneficial effects of exercise in FM (Gandhi, DePauw, Dolny, & Freson, 2002; Meiworm, Jakob, Walker, Peter, & Keul, 2000). A comprehensive meta-analysis over many studies showed moderate effect size for exercise enhancement of overall well-being and daily functioning in FM (Busch, Barber, Overend, Peloso, & Schachter, 2007). Most improvements for pain relief and increased endurance also were noted (Brosseau et al., 2008) along with improved sleep (Jentoft, Kvalvik, & Mengshoel, 2001). Specifically, strength training has been shown to improve strength (Hakkinen et al., 2002; Rooks, Silverman, & Kantrowitz, 2002), decrease total myalgic score (Martin et al., 1996), and reduce overall FM impact (Rooks et al., 2002). Strength training also has been shown to slow the cycle of deconditioning and permit FM patients to increase participation in other type of activities (Jones, Clark, & Bennett, 2002). Overall, combined modalities of strength and cardiovascular regimens are demonstrated as safe, well tolerated, and effective for improving muscular strength, cardiovascular endurance, and functional status in patients with FM without exacerbating its symptoms. Most importantly, exercise may contribute to a reduction in the severity of several frequent symptoms (Rooks et al., 2002). As such, imminent outcomes associated with increased physical activity in FM include the improvement, or maintenance, of fitness, daily physical functioning, emotional well-being, symptom reduction and health promotion (Rooks, 2008).

In line with these findings, The American Pain Society has issued guidelines for patients to perform moderate to intense aerobic exercise (60 to 70% of age-adjusted predicted maximum heart rate; (maxHR)) 3-5 times per week (Burckhardt et al., 2005). Additional initiatives have encouraged physicians to include physical activity within treatment plans and elaborate with their patients on ways of engaging in more frequent physical activity (Rooks, 2008). One major obstacle to the effective implementation of exercise regimens in this population remains, however: the poor adherence rates to exercise programs (Hakkinen et al., 2002; Valkeinen et al., 2004). To that matter, for interventions to work, Panton et al. (2009) have suggested that strategies need to be developed to keep individuals from dropping out of exercise programs. Subsequently, further research is needed to find methods to enhance adherence to exercise interventions in this population (Panton et al., 2009). A scarcity of empirical work has been published on the adoption and continuation of exercise behaviors in the FM population.



Anecdotal accounts, however, have suggested that patients with FM minimize exercise participation due to pain and fatigue (van Santen et al., 2002). Therefore, the purpose of this study is a beginning attempt to test the effectiveness of imagery use in improving exertive pain tolerance and overall task adherence in patients with FM.

The use of imagery already has been shown to aid intense athletic performance through improved beliefs of self-efficacy, self-confidence, and positive affective responses (Callow & Hardy, 2001). Positive effects of imagery have been seen in the general population when coping with aversive stimuli in non-athletic physical activity contexts (Razon et al., 2010; Tenenbaum, 2005). In an attempt to explicate the findings for the seemingly beneficial effects of imagery use, Munroe-Chandler and Gammage (2005) have stipulated that improved self-efficacy beliefs due to imagery use may be the critical mediator to imagery's positive outcomes.

Based on Paivio's (1985) original conceptual framework, Hall, Mack, Paivio, and Hausenblas's (1998) have put forward that imagery entails a number of functions including the following: (1) *Cognitive-Specific function* (CS: mental practice of particular skills), (2) *Cognitive-General function* (CG: mental practice of tactics, routines, and game plans), (3) *Motivation Specific function* (MS: mental practice of particular outcome goals), (4) *Motivational General-Arousal function* (MG-A: mental practice of arousal and anxiety regulation), and (5) *Motivation General-Mastery function* (MG-M: mental practice of mental toughness and perceptions of control enhancement). Given these, it can be argued that when one engages in a physical task, which requires exertive effort, imagery use may affect the sensory input fed forward from the working muscles via both the cognitive-specific and motivation-specific functions. As a result, subsequent to imagery use, attention (i.e., the specific cognitive function) and perceived exertive pain (affected by the task-specific motivation function) can be altered in a way that best optimize adjustment to the task and its associated exertive pain.

Central to the concept of exertive pain perceptions is the focus of attention. Two broad attention coping strategies were outlined initially in coping with exertive pain perceptions (Morgan & Pollock, 1977): (1) *associative attention* strategies that direct the focus of attention inward and toward somatic sensory cues and (2) *dissociative attention* strategies that direct the focus of attention outward and away from somatic sensory cues (Scott, Scott, Bedic, & Dowd, 1999). Comparative research revealed that association in general helps increase pain perceptions through heightened sense of somatic awareness (Kirkby, 1996), while dissociation helps decrease pain perception (Blanchard, Rodgers, & Gauvin, 2004) most likely through decreased somatic awareness. Consistent with these findings, Tenenbaum (2005) proposed that association and dissociation represent internal and external foci, i.e., respectively indicating the extent to which the individual allocates his or her attention to the sensory cues associated with the physical activity experience. As such, during physical activity, attention is initially flexible in that it shifts between associative and dissociative modes with relative ease. As the exertive cues and task duration increases though, attention flexibility is compromised (Ekkekakis, 2003; Tenenbaum, 2005). To address the issue of attentional inflexibility, an individual perceptual threshold relative to the physiological cues of exertion was proposed (Tenenbaum, 2005). The concept of threshold holds that when a certain exertive pain perceptual threshold is reached, attention will lose its flexibility. Subsequently, attention that otherwise shifts between dissociative and associative foci is tuned to an exclusively and final associative focus—hence the imminent ending of the applied effort (Pandolf, 1978). Providing further support for the occurrence of a dissociation/association (D/A) threshold, Lind Welch, and Ekkekakis (2009) emphasized that in

cases where D/A are equally employed, associative strategies gradually take over the dissociative ones rendering the cessation of the effort imminent.

The purpose of the present study is to test the effectiveness of imagery use in delaying the D/A threshold in patients with FM throughout a 20% maximal handgrip-squeezing task until volitional fatigue. A dissociative imagery to help promote a dissociative focus of attention was used. For the purpose of this study, dissociative imagery was defined as the mental visualization of scenes that are irrelevant to task performance. This selection was based upon comparative accounts suggesting that (1) dissociation over association facilitates pain perceptions (Blanchard et al., 2004) and (2) as compared to association, dissociation appears more beneficial in enhancing the physical activity experience at large (Connolly & Jannelle, 2003). We expect that the imagery use will effectively help delay the D/A threshold, and this delay will be accounted by reduced levels of exertive pain, extended patterns of dissociative attention, and overall increased adherence to hand-grip squeezing task.

## **Methods**

### **Sampling**

Thirty women diagnosed with FM were recruited for this study. The women were assigned randomly to one experimental (imagery) and one control (creative writing) groups. Dropout of several women resulted in a final sample of 19. The age ranged between 40-78 years ( $M = 56.2$ ,  $SD = 8.9$ ). None of the women had a history of myocardial infarction, stroke, uncontrolled hypertension ( $>160/100$  mmHg), or any other condition that was contraindicated for squeezing the handgrip dynamometer. The study was approved by the University's Institutional Review Board and signed informed consents were obtained from all women before any data collection occurred.

### **Apparatus**

Handgrip capacity was measured using a calibrated Lafayette™ handgrip dynamometer Model 78010 (Lafayette instrument company, Lafayette, Indiana). The device has an adjustable hand-bar connected to a steel spring that, when compressed, moves a dial. Applied force was recorded in kilograms by the dial on the face of the device. The testing range for the dynamometer was 0-100kg.

### **Task Conditions and Interventions**

The study consisted of two conditions: (1) dissociative imagery and (2) descriptive writing conditions. In the imagery condition, women were provided with the dissociative/motivational imagery instructions and given time to practice visualizing relevant imagery scenes. Drawing upon the *model of imagery ability in relation to sport* (Watt, Morris, & Andersen, 2004), imagery training included the definition of imagery, appropriateness of its use, and critical aspects to its application (i.e., vividness of image, control over image, external and internal perspective to imagery, multisensory involvement, and importance of frequent practice) along with specific examples and rehearsals of dissociative imagery scenes. Women in this condition, for instance, were instructed to visualize themselves excelling through a competition or reaching a long desired goal. Although the imagery group received examples of acceptable imagery scenes, they also were encouraged to generate personalized scenarios because personalized imagery

interventions were found to be more effective (Lang, 1985), particularly in the motor domain (Smith, Wright, Allsopp, & Westhead, 2007).

In the descriptive writing condition, women were provided with a descriptive essay writing instructions, and given time to practice one descriptive writing essay. Consistent with the imagery training, descriptive writing training included the definition of descriptive writing, and appropriateness and critical aspects of its use (i.e., clarity, creativity, comprehensiveness, exhaustiveness, multisensory involvement, and importance of frequent practice). Specific examples and practice of one descriptive imagery essay was followed. Women in this condition, for instance, were instructed to portray vividly a person, place, or an object in such a way that the reader can picture the topic and get into the writer's experience. Although the descriptive writing group was provided with examples of acceptable descriptive essays, the group also was encouraged to generate personalized writings due to the personal basis of the writing topics.

### **Instrumentation**

**Fibromyalgic impact questionnaire (FIQ;** Burckhardt, Clark, & Bennett; 1991). The questionnaire evaluates impact of FM on subjective quality of life. The FIQ consists of 20 questions pertaining to morning stiffness, mood, pain, and ability to perform activities of daily living. Scores range from 0-100 units; the higher the FM impact score, the greater the impact of disease on quality of life. Construct validity for the FIQ has been demonstrated through correlations of FIQ scores with physical impairment, pain, depression, and anxiety with the Arthritis Impact Management Scale ( $r = 0.67-0.76$ ). Temporal stability of FIQ range from 0.56 with pain to 0.95 with the physical function scale.

**Current pain levels scale.** A one-item scale was used to measure women's pain levels prior to participation. The scale included the following item: "please indicate how you are feeling RIGHT NOW. What is the intensity of your pain?" The item was rated on a 10-point category-ratio scale ranging from 0 (*none/low*) to 10 (*severe*).

**Ratings of perceived exertion (RPE;** Borg, 1982). A 10-point category-ratio scale ranging from 0 (*nothing*) to 10 (*extremely strong*), RPE was used to measure perceived levels of exertion during task performance. The higher the RPE score, the higher the rating of perceived exertion. The scale was shown to possess high intra-test ( $r = .93$ ) and re-test ( $r = .83 - .94$ ) reliabilities. RPE also is used extensively in most exercise laboratories because of its strong correlation with a number of physiological and chemical measures of exertion including lactic acid, heart rate, aerobic capacity, and ventilation (Borg, 1982; 1998).

**Attention** (Tammen, 1996). A 10-point scale ranging from 0 (*external thoughts, daydreaming, environment*) to 10 (*internal thoughts, how body feels, breathing technique*) attention scale was used to measure attention focus throughout the task performance. The scale initially was designed to represent the continuum of attention strategies ranging from 0 (*pure dissociation*) to 10 (*pure association*). Tammen (1996) found the one-question scale to be an efficient and valid measure of attention strategies during effort expenditure of elite runners. The one-question scale also was used in a study prompting runners to estimate the percent of time allocated to association and dissociation (Baden, McLean, Noakes, & St. Clair Gibson, 2005). Major findings stemming from these studies indicated that an individual's use of association and dissociation varied along a continuum, and that the one-item measure was an effective measure in capturing an individual's attention focus. Lending additional support to the previous findings, Masters and Ogles (1998) reported that the use of one-item measurements remain effective in encapsulating

an individual's attention focus immediately following the experimental task. Based on similar measures, Hutchinson and Tenenbaum (2007), and Tenenbaum and Connolly (2008) confirmed that during physical effort, attention shifts from dissociation to association as a function of the workload intensity, further validating the use of the scale.

**Commitment check.** The scale included the three following items aimed at measuring task commitment: (a) "How committed were you to the task while performing?"; (b) "How well do you think you tolerated the effort associated with the task?"; and (c) "How much effort did you invest in the task?" Women were instructed to rate each question on a scale ranging from 0 (*none/not at all*) to 5 (*very much/very well*).

**Task-specific self-efficacy (TSSE; Bandura, 1977, 1986).** The TSSE scale is used to measure an individual's belief in one's capacity to allocate resources required for the successful completion of a task. For the purposes of the present study, one item from the TSSE was used to measure women's beliefs in their physical capabilities to tolerate the physical exertion/discomfort associated with the task. The one-item scale included the following prompt: "How confident are you that you have the capacity to sustain physical exertion through the upcoming task?" and was rated on a scale ranging from 0 (*none/not at all confident*) to 5 (*completely confident*).

**Task adherence.** Using a single standard stopwatch, the amount of time each woman adhered to the handgrip-squeezing task was recorded. Time was measured to the nearest second. The start time corresponded to the initial physical effort in the squeezing task following a verbal indication of readiness to begin the task. The stopping time corresponded to volitional fatigue, meaning the volunteer release of the handlebar, or the decrease in the handgrip pressures by more the 10% of the maximal value.

**Imagery check scale.** The scale includes 10 items aimed at evaluating the vividness, controllability, kinesthetic, motivational properties, and ease and speed of generation as well as duration and perceived level of involvement with the mental images. The 10 items of the check scale were compiled from a number of imagery scales including Sheehan questionnaire of mental imagery (SQMI; Sheehan 1967), vividness of visual imagery questionnaire (VVIQ; Marks, 1973), Gordon test of visual imagery control (GTVIC; Gordon 1949; Richardson, 1969), vividness of movement imagery questionnaire (VMIQ; Isaac, Marks & Russell, 1986), movement imagery questionnaire (MIQ; Hall, Pongrac, & Buckolz, 1985), sport imagery questionnaire (SIQ; Martens, 1982), and sport imagery ability measure (SIAM; Watt & Morris, 1998). Each of the 10 items of the check scale was rated on 10-point continuum ranging from 0 (*not at all/immediately*) to 10 (*very much/toward the end*).

**Imagery practice log.** A daily log was designed to keep records of the women's daily imagery applications with respect to its total duration, and fundamental characteristics including its clarity, and ease of generation. The log mirrors the imagery manipulation check scale.

**Descriptive writing check scale.** The scale includes 10 items aimed at evaluating the clarity, creativity, comprehensiveness, exhaustiveness, multisensory inclusiveness, and thought flow related properties associated with the descriptive writing essay. Each of the 10 items of the check scale was rated on 10-point continuum ranging from 0 (*not at all*) to 10 (*very much*).

**Descriptive writing log.** A daily log was designed to keep records of the women's daily descriptive writing practices with respect to its clarity, creativity, comprehensiveness, exhaustiveness, multisensory inclusiveness, and thought flow related properties. The log mirrors the descriptive writing check scale.

## **Procedures**

The study was conducted in two sessions separated by one week. In the first session, a detailed explanation of the study was provided verbally to each woman. In order to ensure that the women with FM had no contraindications to exercise testing a health history, FIQ, pain level check scale, and demographic forms were administered. Maximal handgrip capacity was established by recording three consecutive squeezes with a 2 minute rest between each attempt. Women were asked to squeeze the handlebar of the dynamometer as strong as they could in one explosive effort. This effort was repeated three times. The strongest of the three squeezes in kilogram was considered the maximal handgrip capacity. After establishing the maximal handgrip capacity (i.e., highest value of the three attempts), 20% of the max was calculated. Similar submaximal values (e.g., 20-50%) have been used in previous studies with the handgrip-squeezing task to examine exercise-related cognitive and affective components (Hutchinson, Sherman, Martinovic, & Tenenbaum, 2008; Koltyn & Umeda, 2007). Each woman was assigned randomly to one of the two conditions. Prior to task performance, RPE and attention scales were explained. RPE instructions were given following Borg's (1998) guidelines in that women were given simple examples of intensities and were asked to confirm their understanding. In addition, women were asked to practice squeezing the handlebar for a few seconds to insure they understood the task and felt comfortable with it. Furthermore, they were given the TSSE form measuring their beliefs of self-efficacy related to the task specifics. Following the completion of the TSSE form, women were asked to engage in the squeezing task under their assigned condition. In order to control for the variability of 20% set limits, the static gage of the dynamometer was set for each woman's respective 20% effort limits. Across task performance, the researcher monitored and controlled the dynamic (i.e., moving) gage of the dynamometer not to swing above or below the set limits. The test was terminated when either volitional fatigue was reached, or when the contraction could not be held, demonstrated by a 10% decrease in performance of the designated 20% value. Throughout the task performance, RPE and attention scales were introduced at 30 s intervals. Every 30s, women were asked to express verbally their level of effort (RPE) and attention-focus based on the one-item effort and attention scales that were placed in front of them at eye level and within their view. Upon the completion of the task, they were administered the commitment check and debriefed. At the end of the first session, each woman was provided with training, which lasted approximately 15 minutes. Subsequently, the imagery group was instructed to take a few moments to visualize a practice scene. The descriptive writing group was instructed to elaborate and write about given descriptive essay topics. Following the completion of the practice of the imagery scene/descriptive essay writing, women were administered the imagery/descriptive writing check scales. Upon completion of the practice session, women were asked to practice their imagery scenes/writing essays daily until their scheduled testing appointment—in a week. They also were provided with imagery/descriptive writing logs for keeping daily records of their practices (i.e., total of 7 sheets, 1/day).

At the onset of the second session, women in the imagery and descriptive writing groups handed their daily logs to the experimenter. At this point, the women in the imagery group were informed that they were expected to perform the handgrip squeezing task up to volitional fatigue and use their imagery scenes at times of fatigue and pain throughout the task performance. Next, pain level check and TSSE forms were administered. The imagery/descriptive writing check

scales were provided upon participants' completion of task performance. Women were finally administered commitment check scale and debriefed.

## Results

### Manipulation Checks

**Self-efficacy.** A Repeated Measure (RM) ANOVA with group as a between-subjects (BS) factor was conducted to determine possible differences in task-specific self-efficacy across 2 trials. The results revealed a significant trial,  $Wilk's \lambda = .76$ ,  $F(1, 17) = 5.40$ ,  $p < .05$ ,  $\eta_p^2 = .24$ , and group,  $F(1, 17) = 4.47$ ,  $p < .05$ ,  $\eta_p^2 = .21$  effects on self-efficacy. Figure 1 shows that women using imagery displayed higher self-efficacy ( $M = 4.13$ ,  $SD = .60$ ) than patients in the descriptive writing condition ( $M = 3.50$ ,  $SD = .58$ ,  $ES = .31$ ). The trial by group interaction effect,  $Wilk's \lambda = .98$ ,  $F(1, 17) = .37$ ,  $p = .55$ ,  $\eta_p^2 = .02$  was non-significant.

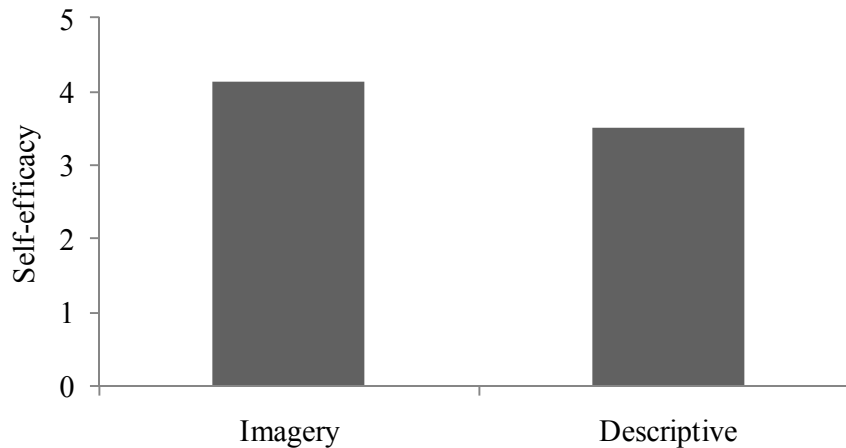


Figure 1. Mean self-efficacy under imagery and descriptive writing conditions

**Commitment check.** Each of the 3 items in the commitment check scale was subjected to mixed group by trial RM ANOVA. To the item "How committed were you to the task while performing?" women in both groups rated their commitment very high ( $> 4.0$ ). No significant differences were indicated for trial, group, and trial by group interaction. Similar analysis performed for the item "How well do you think you tolerated the effort associated with the task," and "How much effort you have invested in the task?" revealed similar non-significant effects. Women in both groups rated commitment highly ( $> 4.0$ ).

**Maximum handgrip squeezing value.** A one-way ANOVA was conducted to determine if there were statistically significant differences among the participants' maximum squeezing values prior to performing the task. The results indicated that the groups did not significantly differ on the maximum squeezing capacity,  $F(1, 17) = .10$ ,  $p = .75$ .

**Pain level.** Mixed RM ANOVA revealed non-significant ( $p's > .05$ ) effects for trial, group, and trial by group effect interaction. Pain levels ranged between 4.5-6.0 on a 10-point scale.

**Fibromyalgia impact questionnaire (FIQ).** A one-way ANOVA performed for participants' total FIQ scores revealed non-significant ( $p > .05$ ) difference between the groups ( $M_{Imagery} = 63.11$ ,  $SD_1 = 7.38$ ;  $M_{Descriptive} = 60.19$ ,  $SD = 19.90$ ).

**Imagery check.** Women in the imagery group reported high level of self-efficacy ( $M > 8.5$ ). High level of image vividness, motivation while imaging, perceived effectiveness of the imagery use, and kinesthetic involvement ( $M > 7$ ) also were reported. Low to moderate ratings were reported for the ease of generating the imagery scene ( $M < 4$ ). Thus, it is evident that the imagery used by the women during the squeezing task was implemented as instructed. Figure 2 illustrates the item answer patterns in the imagery check scale.

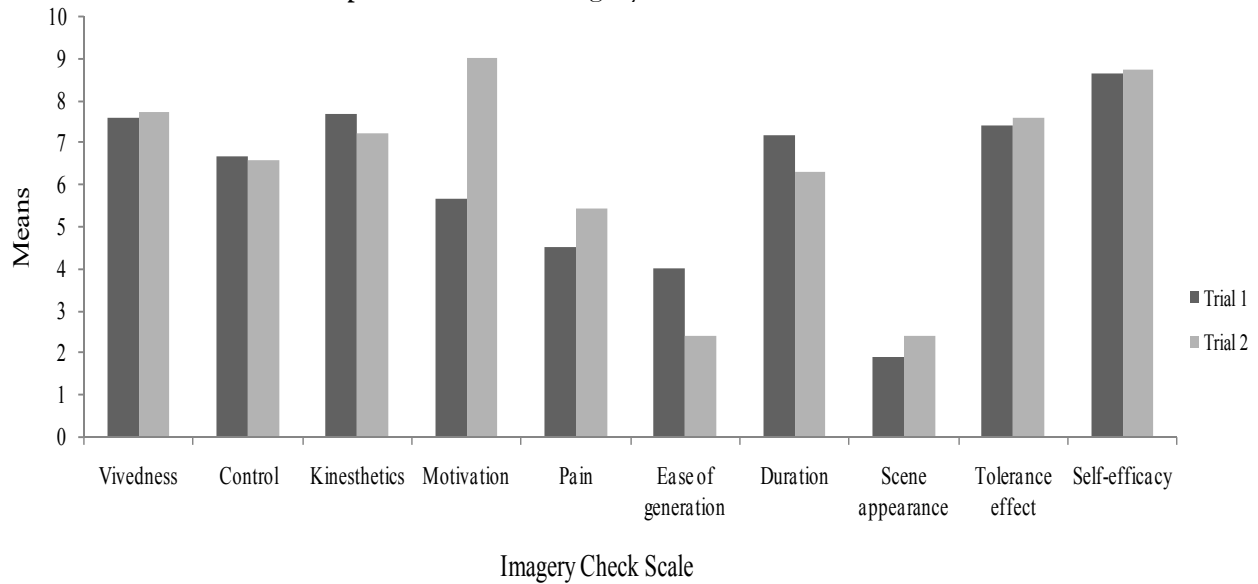


Figure 2. Means of the 10 imagery-related items.

**Descriptive writing check.** Women in the descriptive group reported high level of sensory-modality inclusion, and perceived self-efficacy with the performance ( $M > 8.5$ ). Moderate ratings were reported for the perceived clarity of the descriptive essay, thought flow associated with the writing, exhaustiveness of the essay, and perceived effectiveness of writing for pain tolerance ( $M = 6-7$ ). Thus, it is evident that the descriptive writing was implemented as instructed. Figure 3 illustrates the mean ratings on the items related to the descriptive check scale.

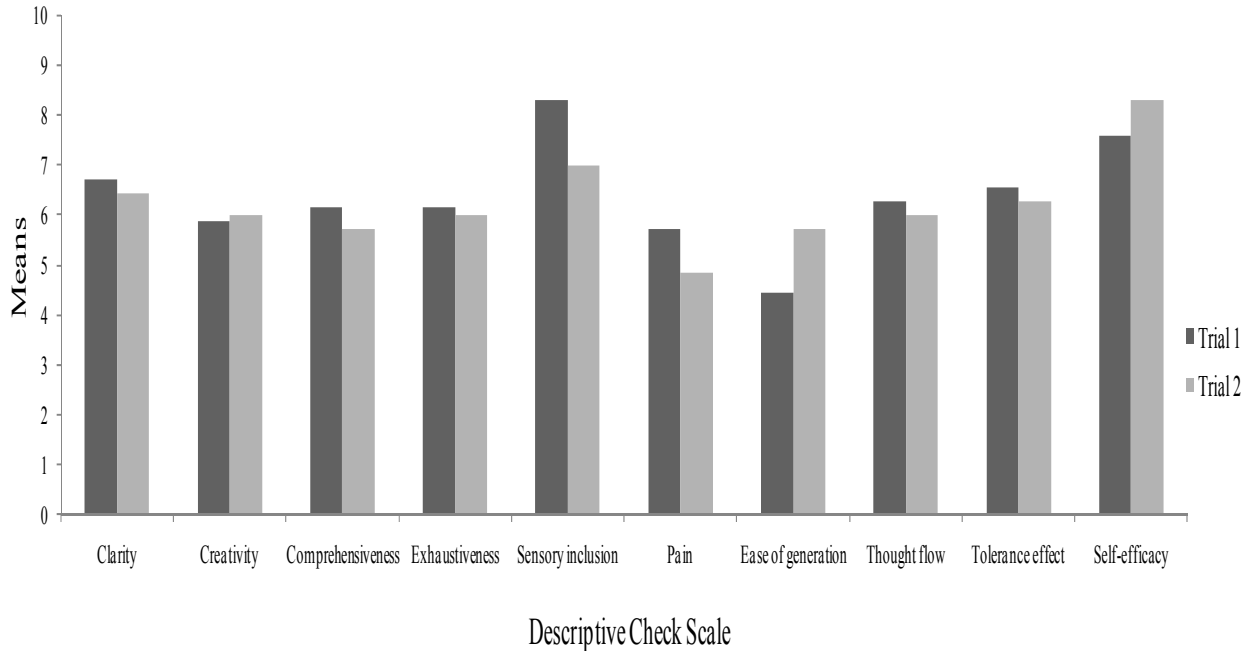


Figure 3. Means of the 10 descriptive-related items.

**Imagery and descriptive log.** Women in the imagery and descriptive writing groups reported high level of compliance with the dimensions of the imagery and descriptive writing logs respectively ( $M > 6.5$ ) during each day between the two sessions. Thus, it is evident that the women appropriately practiced imagery/descriptive writing prior to task-performance. However, more time was allocated for practicing descriptive writing as compared to practicing imagery. Figure 4 depicts time spent practicing across 6 days for both groups.

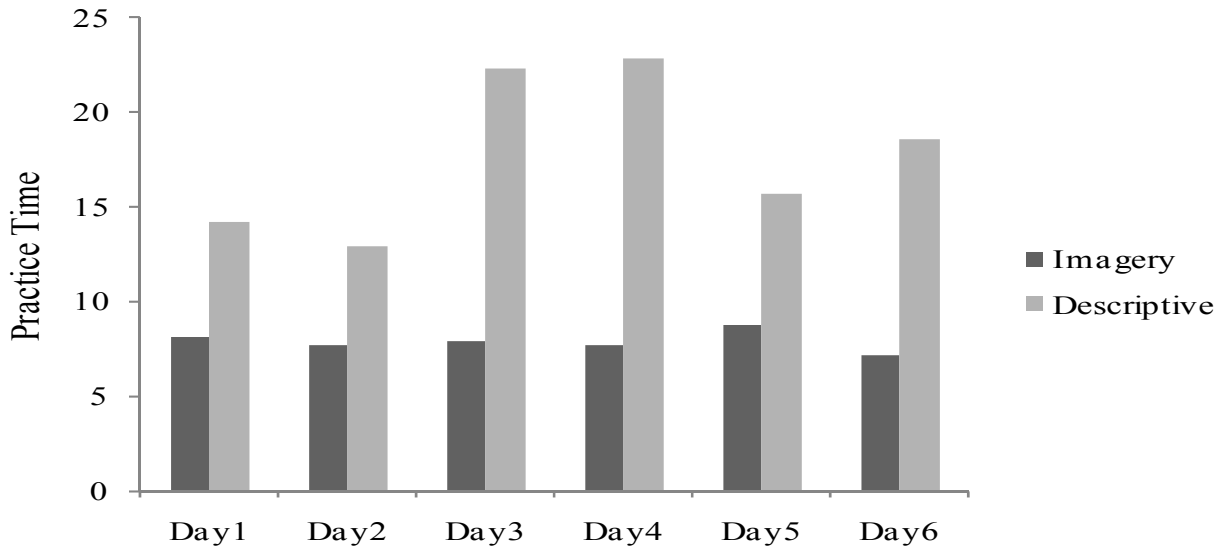


Figure 4. Means of practice time (minutes) during 6 days.



### Main Findings: Task adherence, perceived exertion, and task allocation

**Attrition.** Descriptive examination of adherence to the squeezing task indicated high women's attrition rate following the 6<sup>th</sup> time interval (e.g., 3 minutes). Thus, the 6<sup>th</sup> interval was set as the cut-off point—i.e., for the analysis included data up until the 6<sup>th</sup> time interval.

**Task adherence.** Mixed RM ANOVA revealed non-significant ( $p$ 's > .05) effects for trial, group, and trial by group, though descriptively women in the imagery group showed higher mean for "time on task" (see Figure 5).

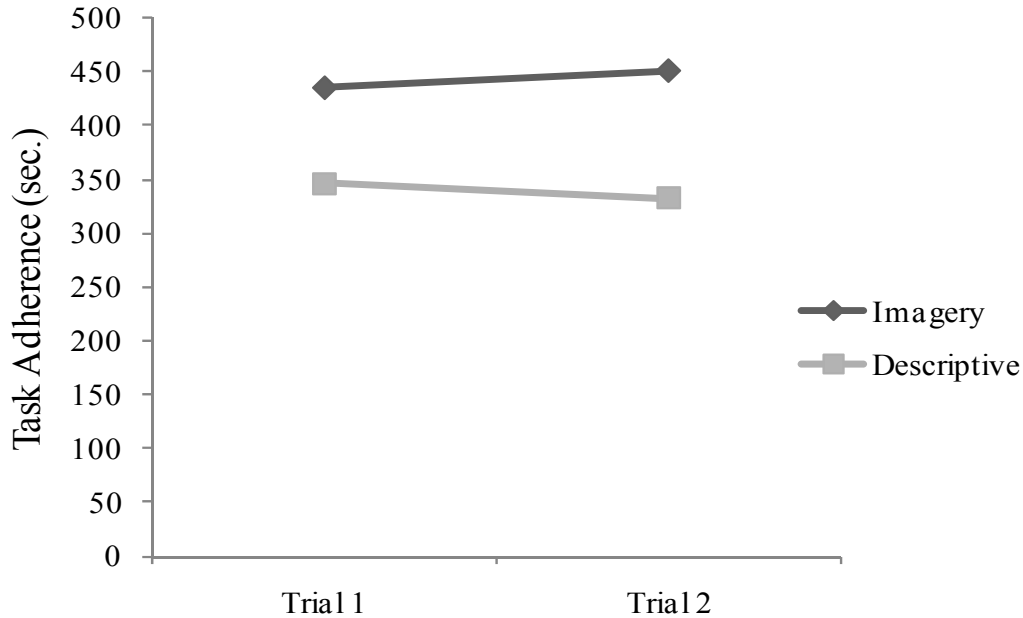


Figure 5. Mean squeezing time during the two trials by FM patients during 2 trials.

**Ratings of perceived exertion.** Mixed RM ANOVA performed on RPE, 6 (time intervals) by 2 (imagery, descriptive writing) by 2 (trial 1, trial 2), resulted in non-significant interval by trial by group effect,  $Wilks's \lambda = .75$ ,  $F(12, 5) = .82$ ,  $p = .56$ ,  $\eta_p^2 = .25$ . Figure 6a,b shows mean ratings of perceived exertion during 6 time intervals and 2 trials (prior and during intervention) for the imagery and descriptive writing groups. For the imagery condition, RPE at the 6<sup>th</sup> time interval was larger for trial 1 ( $M = 7.36$ ,  $SD = 2.29$ ) than trial 2 ( $M = 6.64$ ,  $SD = 2.13$ ,  $ES = .10$ ). For the descriptive writing condition, RPE at the 6<sup>th</sup> time interval was larger for trial 1 ( $M = 7.00$ ,  $SD = 2.23$ ) than trial 2 ( $M = 6.57$ ,  $SD = 2.07$ ,  $ES = .08$ ).

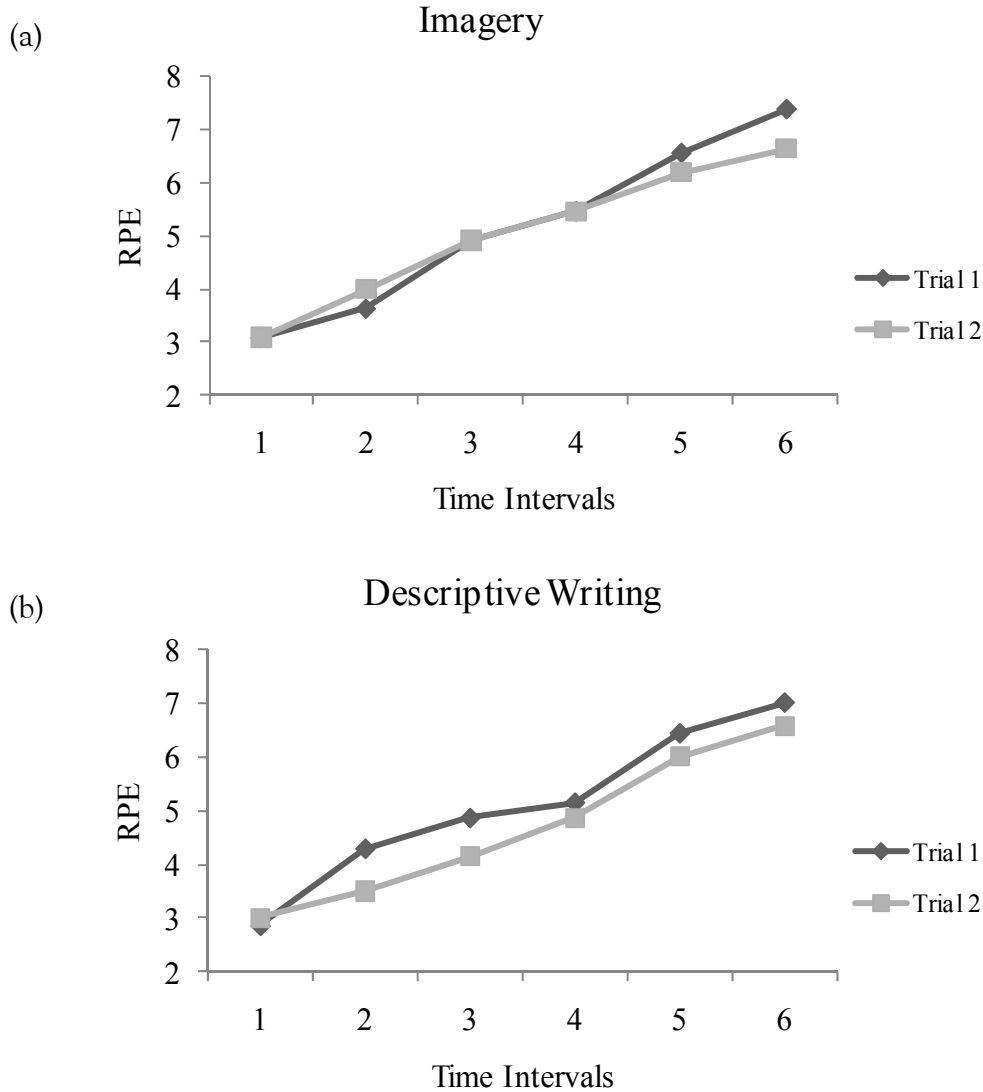


Figure 6. Mean ratings of perceived exertion during 6 time intervals and 2 trials for patients using (a) imagery and (b) descriptive writing

**Attention allocation.** Similar to RPE, a 6 (time intervals) by 2 (imagery, descriptive writing) by 2 (trial 1, trial 2) mixed RM ANOVA was performed for attention allocation during the squeezing dynamometer task. The results indicated a non-significant time interval by trial by group effect, *Wilk's*  $\lambda = .89$ ,  $F(12,5) = .30$ ,  $p = .91$ ,  $\eta_p^2 = .11$ . Figure 7a,b displays mean ratings of attention during 6 time intervals and 2 trials for the two groups. Women using imagery condition reached Attention = 5 rating approximately after 79 seconds and 82 seconds during trial 1 and trial 2, respectively. Women in descriptive writing condition reached Attention = 5 rating approximately after 115 seconds and 163 seconds, during trial 1 and trial 2, respectively.

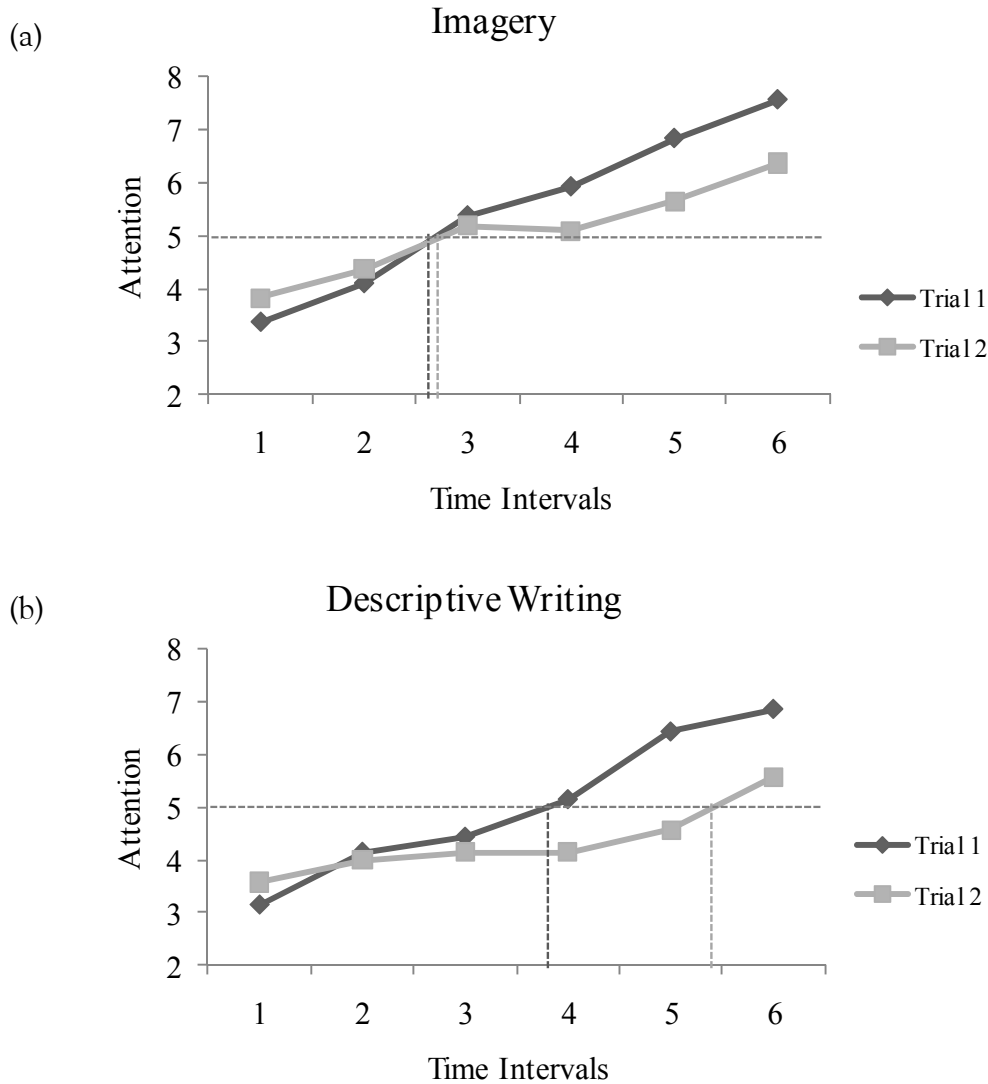


Figure 7. Mean ratings of attention during 6 time intervals and 2 trials for (a) imagery and (b) descriptive writing groups.

## Discussion

Physical activity and exercise in FM-diagnosed individuals seems to maintain or enhance fitness, daily physical functioning, emotional well being, symptom reduction, and health promotion (Rooks, 2008). However, a major concern is the dropout rate in these individuals attributed to the discomfort and painful sensations associated with the disease and the exercise regimen (Hakkinen et al., 2002; Valkeinen et al., 2004). This concern recently was echoed by Panton et al. (2009) who advocated that further research must explore innovative methods aimed at increasing adherence-rate to exercise regimens (Panton et al., 2009). A scarcity of empirical work has been published on the adoption and persistence of exercise behaviors in the FM population. Anecdotal accounts, however, have suggested that patients with FM minimize exercise behaviors due to pain and fatigue (van Santen et al., 2002). The purpose of this study

was to test the effectiveness of imagery use in improving exertive pain tolerance and overall task adherence in women with FM.

The use of imagery was found effective in athletic performance through improved beliefs of self-efficacy, self-confidence, and positive affective responses (Callow & Hardy, 2001). Positive effects of imagery use also were evidenced for the general population coping with aversive stimuli in non-athletic physical activity contexts (Razon et al., 2010; Tenenbaum, 2005). Furthermore, self-efficacy beliefs were set to be the critical mediator for imagery's positive outcomes (Munroe-Chandler & Gammage, 2005). When one engages in a physical task, which requires exertive effort, imagery use may affect the sensory input fed forward from the working muscles via both the cognitive-specific and motivation-specific functions. As a result, subsequent to imagery use, attention (i.e., the specific cognitive function) and perceived exertive pain (affected by the task-specific motivation function) can be altered in a way that best optimizes adjustment to the task and its associated exertive pain (Hall, Mack, Paivio and Hausenblas, 1998; Paivio, 1985). To empirically test this postulation, we tested women with FM whose records indicated episodes of coping with pain in muscles and joints. Thus, it was expected that when applying motivational/dissociative imagery to a task evoking exertive-pain, such as dynamometer squeezing, these women would adhere longer to the task and would feel less exertive pain throughout the squeeze than women engaged in an alternative task such as descriptive writing. In other words, imagery use was thought to enable women to persist longer through increased self-efficacy (motivation) and through diversion of attention to the imagery scenes.

The results of this study showed that women using imagery perceived on average higher self-efficacy in their ability to tolerate the exertive-pain than women engaged in descriptive writing ( $ES = 31$ ). Women using imagery and descriptive writing were highly and similarly committed, reported similar painful experiences, and shared similar values of FM impact. Imagery and descriptive writing checks indicated extensive and efficient use of both interventions during the 6-days practice, though women engaged in descriptive writing spent longer time practicing writing than women in the imagery group practicing imagery. The main results are less convincing. Women using imagery remained on-task for longer duration only descriptively, but this difference cannot be generalized. There were no differences between the groups in RPE. A non-significant trend, however, was noted in RPE in the last time interval, where women using imagery perceived slightly less exertion than in the first trial performed without systematic practice of imagery. Such trend was not noted for women in the descriptive writing group. Finally, women in the imagery group while squeezing tended to shift attention to the exertive-painful sensations earlier than women the descriptive-writing group, though in the second trial, women in the imagery group were more dissociative than they were in the first trial. This trend also was noted in women in the descriptive-writing group. As one may notice, the results are not in line with our initial expectations and necessitate further elaborations.

The non-significant results, and some descriptive trend in the data, are attributed to several issues. Two methodological concerns deserve attention. The sample size was unfortunately small and lacks sufficient power to infer causality and generalizability. In addition, the dropout rate could not be avoided due to objective consequences of individuals with FM suffering severe pain preventing them from attending to the second session. Though patients showed serious attitude and practiced their assigned activities, the intervention was apparently too short to yield expected significant effects. For imagery to be effective, individuals must practice more and be familiarized more extensively with the exertive painful sensations (see

Morris, Spittle, & Watt, 2005 for extensive review). Indeed, the exertive pain implemented in the study was not identical to the pain FM patients experience during the disease-related episodes and flare-ups. Thus, it is recommended that more attention should be given to the practice time of imagery and the use of this promising technique during disease-associated pain episodes.

The women using imagery were instructed to visualize themselves excelling through a competition or reaching a long desired goal. They also were encouraged to generate personalized scenarios since these were found to be more effective (Lang, 1985), particularly in the motor domain (Smith et al., 2007). The present findings clearly indicate that the images these women generated diverted their attention inward leading them to adopt an associative focus much earlier than the women engaged in descriptive writing. We believed that dissociative imagery would divert attention outwards and away from the painful sensations, which was not the case in the present study. Along with increased self-efficacy, women using imagery tended to adhere longer while feeling the exertive-painful sensations. Thus, the present findings support the notion, yet cautiously, that associative focus and imagery affect task adherence via the motivational channel. However, this trend must undergo a vigorous experimental procedure before reaching conclusion. In addition, associative and dissociative imageries must be contrasted for their possible effectiveness of diverting/focusing attention from/to the painful sensations after a long practice. We believe that imagery has the potential to substitute medical treatment in mild-moderate pain episodes in all individuals suffering pain sensations.

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# **Impact of Offshore Outsourcing on Competitive Advantage of U.S. Multinational Corporations**

**Yoram Benit, Eldon Bernstein, John Cipolla,  
and Ralph Norcio**

## **Abstract**

Offshore outsourcing became a common practice by most United States and Western corporations after the Internet became viable. Outsourcing also has occurred within Information Technology (IT) and subsequently has become part of the strategy of numerous American and Western European corporations. The question, therefore, is whether outsourcing is a significant contributor to building and sustaining a firm's competitive advantage. We examine the question in terms of the types of contracts generally employed, the degree of market freedom in the offshore country, its national culture, knowledge transfer, legal and political conditions, and the costs involved.

Our research found that offshore outsourcing had no significant impact on the competitive advantage of a multinational corporation. We did find considerable support for regarding the time and material elements of the contract. Market freedom factors and multinational corporations' offshore outsourcings were significant variables of the competitive advantage of multinational corporations.

## **Introduction**

Offshore outsourcing became a common practice by most United States (U.S.) and Western corporations after the Internet became viable. It is estimated that by 2015, the U.S. market will outsource 3.3 million employment opportunities and will pay \$136 billion in salaries to foreign workers (Hemphill, 2004).

In the U.S., there are many companies, stakeholders within companies, members of the general public, and representatives from the government who are concerned about preserving jobs in the domestic economy. In spite of these concerns, the economic incentives for companies to outsource employment and production to other countries still encourage these practices to continue. Outsourcing also has occurred within Information Technology (IT) and subsequently has become part of the strategy of numerous American and Western European corporations.

The advantages and disadvantages of offshore outsourcing deserve examination. It is argued that offshore outsourcing promotes the status of the U.S. multinational corporation in the sense that economic stability is improved, thus enabling the organization to concentrate on new areas of research and development. Additionally, it is argued that the multinational corporation has obligations to its stockholders that demand that the multinational corporation achieves specific financial goals and that offshore outsourcing facilitates these processes (Chase, Jacobs, & Aquilano, 2005). Conversely, arguments against offshore outsourcing include loss of economic

stability through reducing employment opportunities and removing the earned income to employees as well as considerations such as regulatory outcomes (e.g., tariffs and trade) and problems that defy quantification in the areas of ingenuity (Hemphill, 2004). One persistent argument is that outsourcing certain functions will allow the firm to achieve a competitive advantage. We propose to test several concepts to see if that theory is supported.

### Definition of Terms

*A multinational corporation* was defined in 1992 by Dunning “as any company, which owns, controls and manages income generating assets in more than one country” (as cited in Zekos, 2005, p. 52, para. 3).

*Competitive advantage*, “occurs when businesses seeking advantage are exhorted to develop distinctive competences and manage for lowest delivered cost or differentiation through superior customer value. The promised payoff is market share, dominance and profitability above average for the industry” (Day & Wensley, 1998, p. 1).

*Outsourcing*, “occurs when an organization transfers some of its tasks to an outside supplier” (Gnuschke et al., 2004, p. 1, para. 3).

*Offshore outsourcing* “occurs when these tasks are transferred to other countries. Offshore outsourcing may involve the utilization of offshore facilities and labor for the importation of goods and services into the U.S.” (Gnuschke et al., 2004, p. 1, para. 3).

*National culture* “is the collective programming of the human mind that distinguishes the members of one human group from those of another. Culture in this sense is a system of collectively held values” (Brown, 1995, para. 1).

*Power distance* is “defined as the level of acceptance of an uneven distribution of power in the society” (Couto & Vieira, 2004, p. 20).

*Individualism* “is defined as the importance of the individual as compared with collective goals and efforts” (Couto & Vieira, 2004, p. 20).

*Masculinity* is defined as “the level of assertiveness that is promoted in the national culture by either gender” (Couto & Vieira, 2004, p. 20).

*Uncertainty avoidance* “is related to the level of uncertainty with regards to future events that people from a specific national culture are willing to accept” (Couto & Vieira, 2004, pp. 20-21).

*Market freedom* is “the degree of economic freedom and economic growth. Quite simply, when entrepreneurs are unfettered by regulation or high taxes, they are more likely to design and produce better mousetraps. When the government owns the factors of production, imposes high taxes, or tightly regulates output, there is little opportunity or incentive to design better product or pursue new technology” (Schiller, 2003, p. 36).

*Industry* is “the basis of firms that compete for the same customers, and not merely of firms that produce similar products” (Friese, 2005, p. 3).

*Types of industries* involved in outsourcing include “manufacturing, process industries and services” (Monczka et al., 2005, p. 33).

*Time and material contract* is defined as a “hybrid type of contractual arrangement that contains aspects of both cost-reimbursable and fixed-price-type arrangements” (Wideman, 2002, para. 10). The variables used to assess arrangements of this nature are assigned through numeric values attached to exchange of resources (e.g., time, price of materials, etc.) and agreed-upon

standards for payment based upon the criteria of the labor involved (e.g., benchmarks of performance met within a specific degree of time, etc.).

*Fixed price contract* is “a fixed total price for a well-defined product. Fixed-price contracts may also include incentives for meeting or exceeding selected project objectives, such as schedule targets” (Wideman, 2002, para. 8).

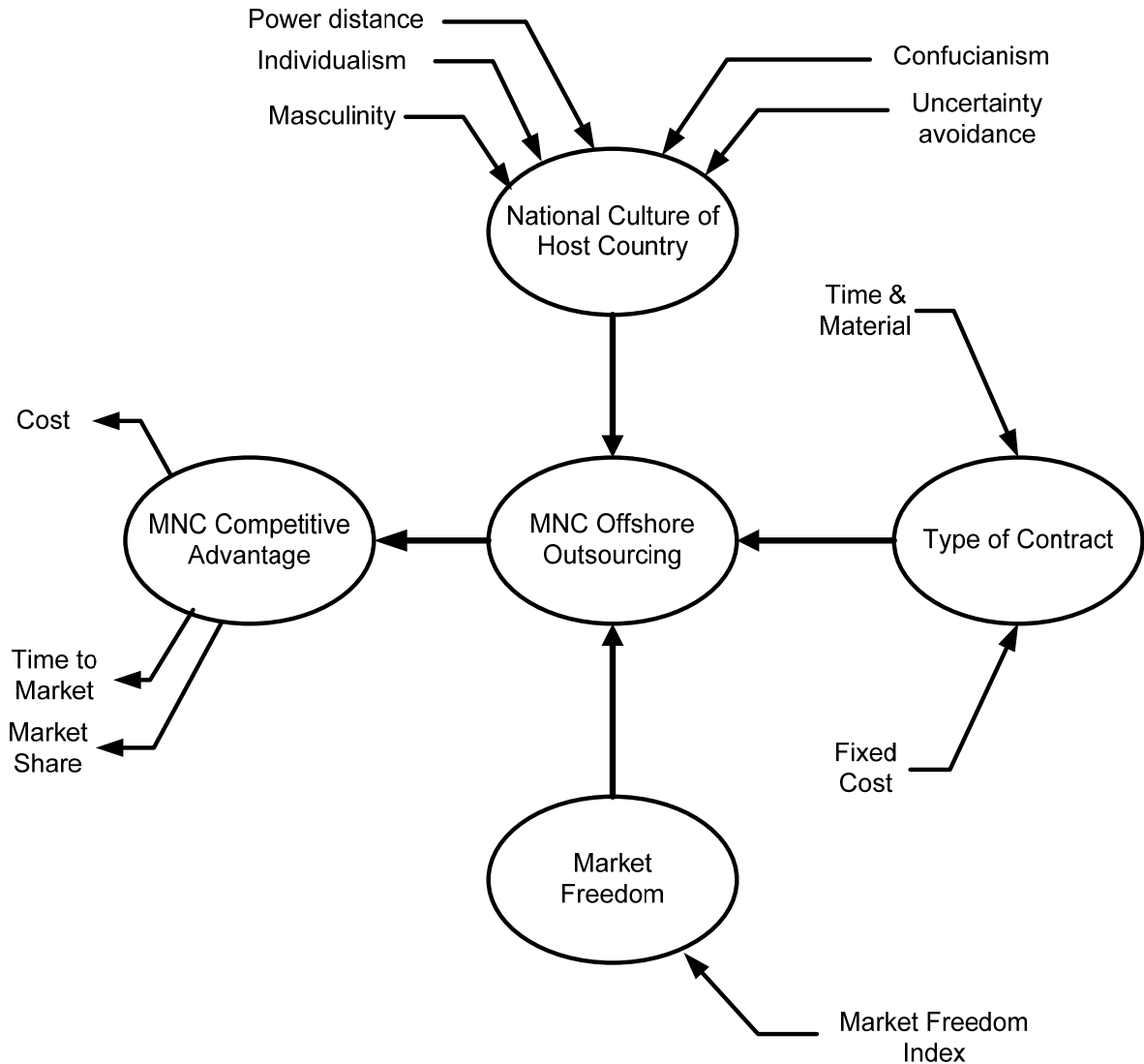


Figure 1. Integrative model demonstrating the impact of offshore outsourcing on competitive advantage.

#### Multinational Corporations

Multinational corporations can be viewed from different perspectives such as management, ownership, operations, and strategy. A common working definition of the multinational corporation is one that invests in physical assets in foreign countries. The multinational corporation is able to operate in one or more foreign countries in addition to the home country of origin. Most multinational corporations have no outright ownership of their

assets in foreign countries, but maintain control through subsidiaries that work within the local host country culture (Root, 1994).

Root (1994) defined a multinational corporation as a parent company that conducts production in different countries through its foreign affiliates (e.g., subsidiaries) and establishes international strategies to conduct business in marketing, production, finance, and staffing.

#### *Competitive Advantage*

Porter (1998) introduced his theory on global economic interconnectivity: *The Competitive Advantage of Nations*. He stressed countries and organizations that take advantage of opportunities and maintain their core strengths tend to succeed, while countries and organizations that succumb to threats and their internal weaknesses tend to fail.

Porter suggested there are strategic operations that emerge from the relative positioning of specific stakeholders within a supply chain. He continued that the assessment process of these needs can result in improving a stakeholder's competitive advantage through informed decision-making and goal orientation. Porter also argued governments can impose regulations, taxes, antitrust laws, and policies that mandate buyer needs, thereby influencing competition in a particular industry.

Grant (1991a) added the concept of determinacy, wherein the stated relationships between two partners are arbitrary, and the connections binding them are even more so.

Franklin and Fredericks (2003) argued Porter perceived competition as placing inherent value on survival at the cost of another party, where one party "wins" and the other "loses," and where Porter argued that the winner attained success because it was best able to identify and use advantages. Both Grant (1991a) and Franklin and Fredericks (2003) stressed the theory of competitive advantage aggressively oversimplifies most core components of human relationships into viewing these as either beneficial or undesirable, with no realistic middle ground. In this process, there is no option to form relationships without the conceptual attachment of intrinsic value.

Several concepts serve to identify and to respond to the assessment of competitive advantage. The *knowledge base* refers to the information an organization has toward internal strengths and weaknesses, and external opportunities and threats (Grant, 1991b). The *resource base* refers to the resources an organization can draw upon to effectively follow a specific course of action, and the ability of the firm to best exploit the internal firm resources and capabilities relative to external resources (Grant, 1991b). The *brand name* of the company is the result of marketing and the quality of the product, and refers to the identity of the company as perceived by the consumers; brand name identity is recognized as a company's single most important asset and most organizations strive to cultivate a positive brand name identity regardless of cost (Grant, 1991b). Finally, the *cost base* of the company refers to the market position held and the abilities to seek out and define specific outcomes, such as cost reduction, revenue generation, and market share based upon the advantages held by this company (Grant, 1991b).

Grant (1991b) studied the resources and capabilities of a firm as a way to achieve and to sustain competitive advantage. Through assessing the positioning of specific elements within a given industry, Grant demonstrated there is a strategic framework through which competitive advantage can be realized. Moreover, he stressed competitive advantage can be applied within the context of specific organizations (e.g., a multinational corporation) through isolating specific processes and identifying the status of these within strategy formulation.

### *Knowledge Transfer*

Based on the classification of global strategies of Ghoshal and Bartlett (1990) and Yip (1995), Tseng (2006) introduced his model that examined the relationship between global strategy and knowledge transfer. He found links that associated all of these functions within the scope of the multinational corporation within the global economy.

### *Measurement of Competitive Advantage*

Methodologies selected and applied by researchers and analysts interested in measuring competitive advantage tend to be focused selectively on specific areas or themes. This is advantageous in that it facilitates a micro level of assessment in which specific variables can be isolated independently by systemic influences and examined in terms of their overall impact on competitive advantage. It is, however, limited in terms of its capacity to identify and integrate other elements of competitive advantage that may not be considered to be important by the researcher (Chase, Jacobs, & Aquilano, 2005). The macro level of assessment, in which multiple variables are examined as part of an overall systemic process, is similarly limited because it does not provide an assessment of pertinent data on a highly-focused level.

A performance management system (PMS) includes a set of financial measurements focusing on profitability. The seven PMS criteria identified by Sink and Tuttle (1989) are effectiveness (the actual outcome compared with the expected outcome), efficiency (the actual resources used compared to resources planned), quality, productivity (output compared to input), quality of work life, innovation for performance improvement, and profitability (as cited in Tangen, 2005, pp. 728-729). Similarly, Kaplan and Norton (1996) developed the balanced scorecard that helps top managers of the company to evaluate four performance areas, which are financials perspective, internal business perspective, customer perspective, and innovations.

Neely and Platts (1995) suggested measurement should lead to efficiency and effectiveness of action. They defined performance measurement as the efficiency and effectiveness of an action, performance measure as efficiency and/or effectiveness of an action, and PMS as a set of metrics to quantify efficiency and effectiveness of an action (as cited in Tangen, 2005, p. 727).

### *Offshore Outsourcing*

Offshore outsourcing has become an important business practice by companies to reduce cost, focus on core businesses, and gain competitive advantage in the marketplace. Others see offshore outsourcing as a threat to jobs, companies, and the economy (Monczka, Markhan, Carter, Blascovich & Slaight, 2005). Ahlawat and Ahlawat (2006) reported outsourcing of “production and services” continued to be a beneficial strategy for American companies.

In the 1960s and 1970s, a lack of skilled IT personnel and affordability of computers caused outsourcing of employment to become a vital business practice in time sharing for operational support and finance. In the 1980s, companies kept IT knowledge in-house since it was perceived as a key value element for the company's success. Companies developed a customized IT infrastructure that addressed the need of every business function in the corporation. In the 1990s, the market matured and companies started outsourcing IT call centers, finance, and some of their operations. Today, most multinational corporations are using outsourcing as a leverage tool for a total solution in Business Processes Outsourcing (BPO), in Application Service Provider (ASP), and in other business functions such as e-business hosting (Ramanujan & Jane, 2006).

### *Offshore Management and Execution Models*

Babu (2006) indicated offshoring in the production of goods and of services share many similarities but ultimately are governed by separate management processes. The study identified significant variables that play a role in specific industrial relationships (e.g., within the IT sector exclusively), knowledge management, economics management, and globalization.

#### *Type of Contract, Offshore Outsourcing, and Competitive Advantage*

To eliminate ambiguities associated with identifying specific themes and processes found within the assessment of effective outsourcing, contract management has been used as a measurement tool because is a legally binding document that exists between multinational corporations and functions both within the legal parameters of the host and the target company, and represents an agreement between the multinational corporations that have agreed to participate within the contract. As such, contract assessment can be used as a benchmark from which analysis of the position of the multinational corporations can be derived; this leads to information relevant to competitive advantage.

Contract assessment offers opportunities to identify input and output associated with specific offshore outsourcing processes. The use of contract assessment helps facilitate research efforts in identifying which aspects of organizational culture and performance are deemed important to one or more participants involved in the process.

#### *Assessment Measures of Offshore Outsourcing*

Kirkegaard (2004) found the assessment process is more appropriate when framed according to “the degree of uncertainty regarding international trade data in areas affiliated with offshore outsourcing” (p. 22). Cost-benefit analysis, he wrote, did not appropriately quantify overall tradeoffs that can result from processes such as job loss from secondary service sector outlets, or from process that are not quantified such as the streamlining of new technology within various areas of job creation. He wrote that “[M]easurement of trade in services is inherently more difficult than measurement of trade in goods” (p. 22), and a broader strategy to incorporate both trade service data and data collection processes corresponding to both goods and services not only within the affected countries but also in those who act as secondary and tertiary suppliers.

#### *Offshore Outsourcing and Competitive Advantage*

Carmel and Agarwal (2002) found offshore outsourcing had entered a new phase, where offshore outsourcing became a known and quantitative practice that can be evaluated according to specific themes and outcomes. They described four transitional stages in the offshoring process: first, an offshore bystander phase, in which there is no offshore outsourcing; second, a reactive/experimental phase, in which the country or domestic companies begin to dabble in offshoring; third, a proactive phase, in which cost and expenses are the focus, and all strategies found tend to identify the process phase to enhance efficiency; finally, a proactive strategic focus, which explores the many diverse environments and circumstances in which offshore outsourcing occurs, and this enables strategic positioning in order to maximize competitive advantage.

#### *National Culture, Outsourcing, and Competitive Advantage*

Data indicate that while offshore outsourcing has commonalities regardless of the host (originator of the offshore outsourcing contract) or the target (recipient of the offshore outsourcing contract) countries involved, there are specific cultural traits that must be considered indicative of outsourcing within these countries.



### *Hofstede's Cultural Dimensions Model*

Hofstede (2003) proposed a cultural dimension model comprised of five components used to assess the value found among distinctive criteria in all relationships. Links between offshore outsourcing and Hofstede's Cultural Dimensions model are found within the need to find a point of synchronicity between cultures participating in offshore outsourcing, or to recognize the unique cultural concerns that typify a specific population. Hofstede suggested all culturally-dependent associations—that is to say, all forms of relationships between persons—manifest this dependence within five dimensions of culture. These five dimensions are as follows:

- *Distance between loci of power*: All cultural organizations (e.g., countries, business, etc.) have some degree of distance between the highest members of the hierarchy and the lowest members of the hierarchy.
- *Individualism versus collectivism*: This dimension measures this degree of entitlement, and seeks to determine the extent of assumptions concerning how and to what extent entitlement occurs.
- *Aggressiveness versus emotion*: Also referred to as *masculinity versus femininity*, this dimension refers to the modes through which the culture approaches problem-solving.
- *Long-term versus short-term*: The study of goal orientation suggests that some cultures have goals that require a long time frame to accomplish, while others rely heavily on short-term goal orientation.
- *Uncertainty avoidance*: Cultures with high levels of avoidance will accept a small level of uncertainty and will be unable to function once this tolerance has been exceeded, while cultures with low levels of avoidance will accept significant uncertainty.

### *National Culture, Outsourcing, and Competitive Advantage*

The study by Couto and Vieira (2004) illustrated the importance of the relationship between national culture and research and development (R&D), recognizing that national culture can lead to advantages of a specific phase of the process. They found low power distance and uncertainty avoidance, and high masculinity and individualism can foster higher innovation (Couto & Vieira, 2004, p. 21). Nakata and Sivakumar in 1996 conducted a study on the relationship between national culture and R&D and found selection of location is the selection of national culture.

### *Political Relations and Offshore Outsourcing*

The literature indicates that geo-political positioning has an impact on offshore outsourcing. Companies are most likely to attract customers but also are more likely to experience geopolitical pressures when they produce high-quality products in widespread use. This is, Lyengar (2004) noted, especially true in software development where standardization of software product use facilitates data movement, and execution of high-quality products helps to facilitate willingness of software use. Countries have distinctive legal, cultural, and ethical codes that impact what a saleable product can contribute. There are, however, at the same time, penalties for failing to adhere to those rules and regulations. Those may range from the loss of a customer to legal actions.

### *The Impact of Regulations on the U.S. and the Offshore Outsourced Service Provider*

Multinational corporations experience significant challenges relating to the offshore outsourcing processes. Clarke (2006) reflected upon these issues in the study of corporate scandal as it reflects upon the provider of outsourcing, wherein the decisions made concerning the availability and applicability of outsourcing often are undermined on the grounds of illegitimate

or misplaced concerns. Regulatory efforts in the wake of scandals and abuses in the processes created sweeping changes in the responses by regulatory agencies.

*Offshore Outsourcing: Legal Risks*

To be successful, firms need to examine potential financial problems such as budgeting, intellectual property rights, patent protection, legal issues, and privacy laws in the foreign country being considered. Ramanujan and Jane (2006) noted the procedures of the vendor might be in conflict with the laws of either or both of the contracting parties.

*Home Country Decision Factors of Offshore Outsourcing*

Jennex and Adalakun (2003) studied the factors that affect the success of small and medium companies that offshore their software development. They identified these as the general knowledge skills of outsource workers; telecommunications infrastructure; technical skills of the outsourced workers; client knowledge, trusting relationship, and intellectual property rights.

Researching the Question

Five hypotheses were formulated to address the questions. Therefore,

H1: Offshore outsourcing has a significant positive impact on the competitive advantage of an MNC.

H1a: Types of offshore outsourcing contracts (time and material, and fixed cost) and MNC offshore outsourcing are significant explanatory variables of the competitive advantage of multinational corporations.

H1b: National culture factors of host country (power distance, individualism, masculinity, Confucianism, and uncertainty avoidance) and MNC offshore outsourcing are significant explanatory variables of the competitive advantage of multinational corporations.

H1c: Market freedom factors and MNC offshore outsourcing are significant explanatory variables of the competitive advantage of multinational corporations.

H2: The degree of offshore outsourcing of multinational corporations is a positive explanatory variable of competitive advantage.

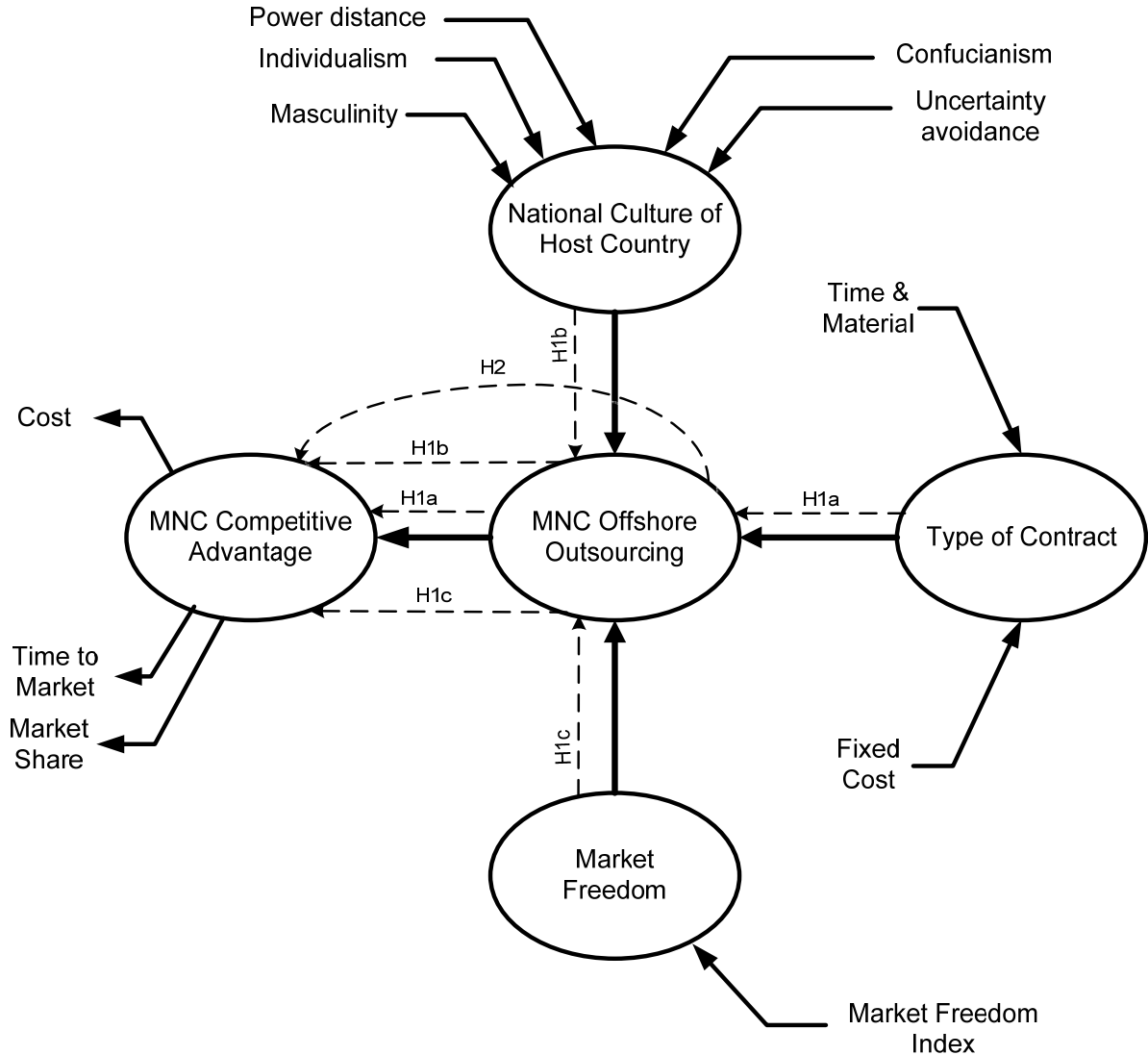


Figure 2. Hypothesized model.

## Population and Sampling Plan

### Target Population

The target population for the current study included telecommunication MNCs based in the United States. The MNCs selected for the study have at least 5,000 employees. These MNCs are among corporations that maintain a certain level of offshore outsourcing through China and India. Within each of the corporations selected in the study, a random number of employees was selected to participate in the study. For the employees to qualify for the study, they had to hold a managerial position within the company, so information regarding the offshore outsourcing from the corporation can be used.

#### *Accessible Population*

The population accessible for the current study was the population of telecommunication MNCs that currently have projects outsourced to either India or China.

#### *Sampling Plan*

Data was collected from the telecommunication companies using a questionnaire targeted to business managers, procurement managers, and assistant managers who deal with outsourcing in India and China. The surveys were distributed to a random sample of the employees who had access to information about their corporations' offshore outsourcing projects. An e-mail based sampling plan was used.

#### *Sample Size*

The minimum sample size for the current study was calculated by using the statistical power calculator G\*Power. As for the number of predictor variables, the most that will be in a model at any given time were national culture factors of host country (power distance, individualism, masculinity, Confucianism, and uncertainty avoidance) and MNC offshore outsourcing, which gives 6 predictor variables. In this case, the minimum sample size required is 98. This is for a power of 0.80 and an effect size of 0.15.

Assuming a 5% response rate to the surveys distributed to the target population, the minimum number of surveys required to be distributed would be 1,960. To ensure a sample of 98 participants, the number of surveys that was distributed was 5,000.

#### *Inclusion Criteria*

The inclusion requirements for this study were as follows:

1. The person is employed by a large telecommunications MNC.
2. The person is a business manager, procurement manager, or assistant manager who would have access to the corporation's offshore outsourcing projects.
3. Managers had direct contact or decision-making capabilities.
4. The person was 21 years old or older.

#### *Instrumentation*

Two methods of data collection were used in this study: questionnaire and historical data. The questionnaire for the current study was modified from different surveys by Gopal (Gopal et al., 2003) and Couto (Couto and Vieira, 2004). The information collected from Gopal includes information regarding data collected for types of contracts used by the MNC. Couto's survey includes information for the national culture and indicates a measurement of offshore outsourcing of MNC. The second method of data collection is the market freedom scores of India and China obtained from the Heritage Foundation Website.

#### *Contract Type Questionnaire*

*Description:* The adapted questionnaire used to look at the different contract types for the MNC in the study was that of Gopal (Gopal et al., 2003). The items used for the construction of the survey used in the current study include the following:

- "There was a clearly known way to convert offshore supplier into requirements specifications."
- "Established processes could be relied upon to convert offshore supplier needs into requirements specifications."
- "There was a clearly known way to develop software that would meet these functional requirements."

"There were established procedures and practices that could be relied upon to develop software to meet these requirements."

"It was difficult to hire trained people for this project."

"There was a shortage of trained people for this project in the company."

"It was difficult to provide training to employees in the skills required for this project."

"The offshore supplier's MIS department was very experienced with handling outsourcing projects."

"The offshore supplier MIS was technically capable of managing outsourced projects like the present one."

"The offshore supplier company had a very capable MIS department."

"The project could have been as successfully executed by the MIS department of the offshore supplier organization."

"The offshore supplier company was very experienced with the process of outsourcing software for its operations."

"A significant part of the offshore supplier's IT needs were outsourced to various vendors, both onshore and offshore."

"Employee turnover from the project teams was a major problem during the execution of this project."

"It was difficult to retain people with the skills required for this project within the company."

These are ranked using a 5-point Likert type scale that goes from 1 "strongly disagree" to 5 "strongly agree."

#### *Validity*

The validity of the instrument was ensured by creating several questionnaire items for the different constructs included on the survey (Gopal et al., 2003). By including multiple items for each of the created constructs in the survey, the validity of the construct will increase (Gopal et al., 2003). Also, by adding more items to the survey, the reliability of the questionnaire increases.

#### *Reliability*

The reliability of the instrument was examined by using Cronbach's alpha scores. It was found for the different constructs that reasonable reliability scores were observed. The lowest reliability score was 0.56 for the client experience construct with the highest reliability score resulting for the requirements uncertainty ( $\alpha = 0.90$ ) (Gopal et al., 2003).

#### *National Heritage Questionnaire*

For Couto's questionnaire, there was a total of nine questions that had several sub-questions used to answer the question of interest. Most of the questions were modeled as a Likert type scale that had three to five different levels. For the questions that contained three different levels, there were three scores: a score of 1, activity not performed by subsidiary; a score of 2, activity performed in a single country by subsidiary; and a score of 3, activity performed in multiple countries by subsidiary. These scores were converted into a five-point scale to remain consistent with the remaining questionnaires. Other three point Likert scales also were converted to a five-point scale to measure the variables of interest.

For the four-point scales in the survey, they included a range from a score of 1, "This does not apply at all," to a score of 4, "This applies fully." These scales were converted to a five-point scale: a score of 1, "This does not apply"; a score of 5, "This applies fully." The remaining five-point scale was used to gather information on the decision making process of the company as well

as the expectations on the financial, sales and marketing side of the company. The questions on this survey were adapted to take into consideration the effect MNCs have with regard to national culture. Also used from this questionnaire are questions to obtain demographic information on the company or in the case of the current study the MNC.

#### *MNC Questionnaire*

The questionnaires by Couto (Couto & Vieira, 2004) and Gopal (Gopal et al., 2006) were used to obtain information regarding MNC offshore outsourcing. Some of the items in the original surveys were modified to obtain information regarding the offshore outsourcing of MNCs. The original questionnaire consisted of questions that indicate various sources of financing at the end of December 2004 with options for the amount from local and foreign sources. This is adapted so information regarding the current year's financing is obtained. Also included in the survey is information regarding marketing strategies, inventory management, production management, and other functional areas of the corporation and whether these are conducted locally or by outsourcing to foreign countries, such as India or China. Questions concerning the profit and sales figures of the MNCs also were obtained from the survey to measure the amount of money made by outsourcing to India and China. In each case, the items on the MNC questionnaire are measured using a five-point Likert type scale that ranges from 1 to 5.

The MNC questionnaire also was used to obtain a measurement of cost of the corporation as well as the time to market the product and the corporation's market share. The production cost of the corporation is measured in millions of dollars and indicates the amount of money spent during the production stage. The time to market is a measure used to determine the amount of time it takes the product to be released to the market and is measured as a continuous variable in weeks. The market share also is operationalized as a continuous variable that measures the percentage of the market being served by the corporation.

#### *Operational Definition*

MNC competitive advantage was measured by cost, time to market, and market share.

National culture of host country was measured by masculinity, individualism, power distance, Confucianism, and uncertainty avoidance.

Type of contract was measured by time and material contract and fixed cost contract.

MNC offshore outsourcing was measured by the degree of investment in offshore outsourcing.

Market freedom scores were obtained from the Heritage Foundation Website and were used to measure the impact on MNCs competitive advantage.

Offshore outsourcing is the independent variable, while the outcome (dependent variable) is competitive advantage of U.S. multinational corporations. National culture of the host country is the contextual variable. The intervening variable is market freedom. Finally, type of contract is the mediating variable.

To assess the first hypothesis that "Offshore outsourcing has a significant positive impact on the competitive advantage of MNC," the variable looked at is the MNC variable used to represent the offshore outsourcing of that corporation.

To assess the second hypothesis that "Types of offshore outsourcing contracts is a significant explanatory variable of the competitive advantage of multinational corporations," the variable looked at is type of offshore outsourcing contracts used by the corporations.

To assess the third hypothesis that "National culture factors of host country are significant explanatory variables of the competitive advantage of multinational corporations," the

variable looked at is national culture of the host country used by the corporations.

To assess the fourth hypothesis that “Market freedom factors are significant explanatory variables of the competitive advantage of multinational corporations,” the variable looked at is market freedom of the offshore country. For the analysis using the simple regression model, the effects of each one of the independent variables as stated above was looked at by using the following regression equation:

$$CA = a + b_h * MNCOO.$$

In this model,  $b_h$  represents the coefficients for each one of the independent variables, which in this case is the MNC Offshore Outsourcing (MNCOO) as measured by the MNC questionnaire. The MNC Offshore Outsourcing is operationalized as a continuous variable based on the items on the MNC questionnaire. This model would be used in the assessment of H1 and H2 where the stated hypothesis is whether the types of contract and MNC offshore outsourcing have an effect on competitive advantage.

To assess H1a, the model used was:

$$CA = a + b_h * MNCOO + b_i * Contract$$

In this model, the  $b_h$  and  $b_i$  represent the coefficients for each one of the independent variables, which in this case are MNC Offshore Outsourcing and the type of contract (time and material and fixed costs). To test the H1a hypothesis, the coefficient that was used was  $b_i$ .

To assess H1b, the model used was:

$$CA = a + b_h * MNCOO + b_j * National Culture$$

In this model, the  $b_h$  and  $b_j$  represent the coefficients for each one of the independent variables, which in this case are the MNC Offshore Outsourcing and the national culture factors (power distance, individualism, masculinity, Confucianism, and uncertainty avoidance). These coefficients explain how much each of the individual variables in the model affects the dependent variable after controlling for the other variables in the model.

To assess H1c, the model used is:

$$CA = a + b_h * MNCOO + b_m * Market Freedom$$

In this model, the  $b_h$  and  $b_m$  represent the coefficients for each of the independent variables, which in this case are the MNC Offshore Outsourcing and market freedom. These coefficients explain how much each of the individual variables in the model affects the dependent variable after controlling for the other variables in the model.

Pearson's correlation coefficients were used to illustrate the relationship that exists between two variables.

The reliability of the instrument can be measured by using Cronbach's alphas. These demonstrate the internal consistency of the items in the survey instrument. These are similar to Pearson's correlation coefficients in that a higher reliability score of 1 would indicate there is a strong correlation between the items on the survey, whereas a smaller value of around 0 would indicate there is very little reliability amongst the items on the survey. Because the survey instrument used has been adapted from surveys that have been proven to be valid and reliable, it could be determined for the items that are similar to one another that there is one general construct. However, because some of the questions on the survey have been modified, a factor analysis was conducted to determine if relationships exist between the items on the survey. Whichever items are correlated with one another then could be used as a construct that measures one of the desired outcomes being assessed.

*Descriptive Statistics*

Frequency distributions for the demographic characteristics of the participants in the study are presented in Table 1.

Table 1. *Descriptive Statistics for Demographic Characteristics.*

Variable	Frequency (N = 279)	Percentage
<i>Management Level</i>		
Area Manager	81	29.0
Director	65	23.3
General Manager	31	11.1
Other (please specify)	87	31.2
Vice President	15	5.4
<i>Age</i>		
Younger than 21	3	1.1
21-34	44	15.7
35-44	118	42.3
45-54	90	32.3
55-64	23	8.2
65 and older	1	.4
<i>Gender</i>		
Female	104	37.3
Male	175	62.7
<i>Education</i>		
Some High School	1	.4
High School Diploma	19	6.8
Associates Degree	21	7.5
Bachelors Degree	99	35.5
Masters Degree	120	43.0
Doctoral Degree	7	2.5
Other (please specify)	12	4.3
<i>Current Position</i>		
Less than 2	46	16.5
2 to 5	74	26.5
6 to 10	57	20.4
11 to 15	55	19.7
16 to 20	30	10.8
More than 20	17	6.1

*Degree of Market Freedom*

The National Heritage scores for each of the participants were collected from the National Heritage Website for each of the countries in which the offshore outsourcing is occurring. The National Heritage score for China was 52.8% (126<sup>th</sup> overall), which indicated that only 53% of China's market is considered to be free. The market freedom scores are based



on different economic factors that include the following: (a) Business Freedom, (b) Trade Freedom, (c) Fiscal Freedom, (d) Government Size, (e) Monetary Freedom, (f) Investment Freedom, (g) Financial Freedom, (h) Property Rights, (i) Freedom from Corruption, and (j) Labor Freedom. Similarly, the market freedom for India is calculated using the same economic factors.

Based on this, India had a market freedom score of 54.2% (115<sup>th</sup> overall) indicating that 54% of India's market is considered to be free. To account for the market freedom of the organization in the analysis, a dichotomous indicator variable was used. These variables were based on whether the country had a lot of involvement or substantial involvement in the offshore outsourcing of the organization. Therefore, if the organization was found to have a lot of involvement or substantial involvement in the offshore outsourcing then the participant was assigned to the more market freedom group, while if China or India did not have much, if any, involvement with the organization then the participant was assigned to the less market freedom group. More than half of the participants were observed to have a lot of involvement or substantial involvement in the offshore outsourcing with China (55.2%), while 54.5% had a lot of involvement or substantial involvement in the offshore outsourcing with India. For both of the variables, 25 (9%) of the participants were missing responses to these questions. The 9% of the participants who have missing values were not included in the subsequent analyses.

Table 2. *Descriptive Statistics for Market Freedom Variable.*

Variable	Frequency	Percent
<i>China</i>		
Less Market Freedom	100	35.8
More Market Freedom	154	55.2
Missing	25	9.0
<i>India</i>		
Less Market Freedom	102	36.6
More Market Freedom	152	54.5
Missing	25	9.0

#### *Reliability Analysis*

To assess the internal consistency/reliability of the items used on the survey instrument to measure the variables required for analysis, Cronbach's alpha statistics were computed. The Cronbach's alpha statistics were computed for the competitive advantage of the corporation as measured by the MNC Questionnaire, the offshore outsourcing as measured by the MNC Questionnaire, the national culture as measured by the National Culture Questionnaire, and the type of contract as measured by the Type of Contract Questionnaire. The results for the competitive advantage of the corporation are presented in Table 3. The questions that comprised the competitive advantage of the corporation were the performance trend over the last three years questions and the corporation's performance in the current year questions. Based on the results for the competitive advantage, the questions used were found to be highly reliable estimates of the competitive advantage ( $\alpha = .921$ ). This indicated the competitive advantage of

the corporations was adequately measured. Therefore, to obtain an overall measurement for the competitive advantage of the corporation, the item response scores for each question were averaged together to give an overall score. For example, if there were five questions that corresponded to the competitive advantage, and the responses that were provided by a participant were 3, 4, 5, 4, and 4 then their overall score for the competitive advantage would be equal to 4, since this is the average of the five items.

Table 3. *Reliability Analysis for Competitive Advantage.*

Variable	Cronbach's Alpha	Number of Items
Competitive Advantage	.921	9

The reliability analyses for the remaining independent variables are presented in Table 4, where once again the Cronbach's alpha and number of items for each variable are presented. Based on the results presented in Table 4, it was found that for the offshore outsourcing of the corporation, there was a very high reliability between the items ( $\alpha = .967$ ). This indicated the offshore outsourcing of the corporations was adequately measured. The questions used for the offshore outsourcing measurement were the business areas to which the organization outsources its products. For this variable, the scores for these 17 items were averaged together in the same fashion as the competitive advantage of the organization variable was averaged. This means a higher score would indicate a higher degree of offshore outsourcing by the corporation. For the national culture variables of the study, Cronbach's alpha statistics were observed to range from  $\alpha = .182$  for the masculinity score up to  $\alpha = .850$  for the Confucianism score. Even though low reliability coefficients were observed for three of the national culture variables, the item responses were averaged to provide an overall measurement for each of the national culture variables. Finally, for the contract type, the reliability coefficients were found to be equal to  $\alpha = .203$  for the fixed cost contract type and  $\alpha = .714$  for the time and material contract type. For exploratory purposes as well as for the purpose of this study, the items that comprised each variable were averaged to give an overall measurement for the contract type variables.

Table 4. *Reliability Analysis for Independent Variables.*

Variable	Cronbach's Alpha	Number of Items
<i>Multinational Offshore Outsourcing</i>		
Offshore Outsourcing	.967	17
<i>National Culture</i>		
Power Distance	.735	2
Individualism	.593	2
Masculinity	.182	2
Uncertain Avoidant	.456	2
Confucianism	.850	2
<i>Contract Type</i>		
Fixed Cost	.203	2
Time and Material	.714	3

To examine the distribution of the before mentioned constructed variables, measures of central tendency are presented in Table 5. This included the mean, standard deviation, minimum, maximum, skewness, and kurtosis statistics for each of the variables. Based on the results of the summary statistics for the constructed variables, the variable that had the highest average value was the power variable from the national culture component of the study ( $M = 3.79$ ,  $SD = .84$ ). The variable with the lowest average then was observed to be the offshore outsourcing variable from the MNC questionnaire ( $M = 2.80$ ,  $SD = 1.01$ ), which indicated only a moderate degree of offshore outsourcing in the sample. This is because the scores for the variables range from a low of one to a maximum of five. Based on the skewness and kurtosis statistics for each of the variables, it appeared that none of the variables had a significant amount of skewness because the skewness statistic was  $< |1|$  (Tabachnick & Fidell, 2001). For this reason, it would suggest that no transformation would be required for these variables since there was little skewness in their distributions. It also can be gleaned from Table 5 that there are several missing values for the variables in the study. This is because several of the participants did not respond to the questions used in the analysis. For this reason, the results in the following section were based on the participants who had valid responses for each of the variables in the study.

Table 5. Measures of Central Tendency for Constructed Variables.

	N	Min	Max	M	SD	Skewness	Kurtosis
Competitive Advantage	213	1.00	5.00	2.95	.85	-.183	-.577
Offshore Outsourcing	231	1.00	5.00	2.80	1.01	-.497	-.867
Power	205	1.00	5.00	3.79	.84	-.503	.514
Individualism	205	1.00	5.00	3.51	.75	-.418	.725
Masculinity	205	1.00	5.00	3.20	.79	.009	.895
Uncertainty Avoidant	205	1.00	5.00	3.30	.81	-.180	.299
Confucianism	205	1.00	5.00	2.99	1.02	-.037	-.289
Fixed Cost	201	1.00	5.00	2.95	.76	-.249	.569
Time and Materials	201	1.00	5.00	3.10	.72	-.346	1.148

#### *Analysis of Variance and Regression Analysis*

The first sets of results presented are for the correlation analysis between the independent variables in the study. This included the correlation among the offshore outsourcing, power, individualism, masculinity, uncertainty avoidant, Confucianism, fixed costs, and time and materials. The results of the correlation analysis are presented in Table 6. There were several variables that were significantly correlated with one another ( $p < .05$ ). In fact, the significant correlations between the variables ranged from a low of  $r = .151$  ( $p < .05$ ) between the fixed costs and the power of the corporation to a high of  $r = .526$  ( $p < .01$ ) between Confucianism

and uncertainty avoidant. Although there were several significant correlations among the independent variables in the study, none of them exceeded .90, which indicated there is little evidence of multicollinearity in the model (Tabachnick & Fidell, 2001). Multicollinearity means the independent variables are highly correlated not only with the dependent variable but also with the other independent variables in the model, which in turn would have an effect of the estimates obtained for the variables in the study. It was observed that there was no correlation of .90 or greater between the independent variables in the study.

Table 6. *Correlation Results for Independent Variables.*

	1	2	3	4	5	6	7	8
1. Offshore Outsourcing	1							
2. Power	-.088	1						
3. Individualism	.180**	.503**	1					
4. Masculinity	.347**	.190**	.434**	1				
5. Uncertainty Avoidant	.182**	.202**	.485**	.499**	1			
6. Confucianism	.265**	0.103	.194**	.413**	.526**	1		
7. Fixed Cost	0.126	.151*	0.122	-.031	0.053	0.029	1	
8. Time and Materials	0.112	.224**	.378**	.230**	.409**	.241**	.307**	1

Note. \*\*  $p < .01$ , \*  $p < .05$

## Results and Discussion

H1: Offshore outsourcing has a significant positive impact on the competitive advantage of an MNC.

H2: The degree of offshore outsourcing of multinational corporations is a positive explanatory variable of competitive advantage.

To address these hypotheses, an ANOVA with a simple regression analysis was used. This was done to determine whether the degree of offshore outsourcing of the corporation had a significant positive impact on the competitive advantage of the corporation. For this hypothesis, the dependent variable was the competitive advantage of the corporation, while the independent variable was the offshore outsourcing of the corporation. The ANOVA results are presented in Table 7. There was not a significant relationship between the offshore outsourcing of the corporation and the competitive advantage of the corporation  $F(1, 211) = .45, p = .50; \eta^2 < .01$ . This meant the degree of offshore outsourcing did not significantly explain the variation in the competitive advantage of the corporation.

Table 7. *Analysis of Variance Results for Competitive Advantage with Offshore Outsourcing.*

Source	SS	df	MS	F	p	$\eta^2$
Offshore Outsourcing	.327	1	.327	.452	.502	.002
Error	152.499	211	.723			

The results of the simple regression analysis are presented in Table 8. As was found in the ANOVA, the offshore outsourcing of the corporation did not significantly predict the competitive advantage of the corporation  $t(211) = .67, p = .50$ . Even though there was not a significant relationship between the competitive advantage and the offshore outsourcing, there was a positive relationship between the variables as indicated by the coefficient estimate for the regression analysis model ( $B = .041$ ). However, it should be noted this relationship was not significant and in fact only explained 2% of the variation in the competitive advantage scores as indicated by the R squared value for the model.

Table 8. Simple Regression Results for Competitive Advantage with Offshore Outsourcing.

Parameter	B	SE	t	p	$\eta^2$
Intercept	2.831	.185	15.270	.000	.525
Offshore Outsourcing	.041	.061	.673	.502	.002

What factors of offshore outsourcing (contracts, national culture, and market freedom) have an impact on U.S. MNC competitive advantage?

H1a: Types of offshore outsourcing contracts (time and material, and fixed cost) and MNC offshore outsourcing are significant explanatory variables of the competitive advantage of multinational corporations.

To address this hypothesis, an ANOVA with a simple regression analysis was used. This was done to determine whether the offshore outsourcing contracts as well as the degree of offshore outsourcing of the company had a significant positive impact on the competitive advantage of the company. For this hypothesis, the dependent variable was the competitive advantage of the corporation, while the independent variable was the offshore outsourcing of the corporation as well as the type of contracts of the corporation. This included the fixed costs, and time and material contract types. The ANOVA results are presented in Table 9. There was not a significant relationship between the offshore outsourcing of the corporation and the competitive advantage of the corporation  $F(1, 197) = .08, p = .78; \eta^2 < .01$ , and there was not a significant relationship between the fixed costs contract and the competitive advantage  $F(1, 197) < .01, p = .96; \eta^2 < .01$ . This meant the degree of offshore outsourcing and the fixed costs contracts did not significantly explain the variation in the competitive advantage of the organization. There was, however, a significant relationship between the time and materials contract type, and the competitive advantage of the organization  $F(1, 197) = 48.77, p < .01; \eta^2 = .20$ .

Table 9. Analysis of Variance Results for Competitive Advantage with Offshore Outsourcing and Type of Contract.

Source	SS	df	MS	F	p	$\eta^2$
Offshore Outsourcing	.045	1	.045	.078	.780	.000
Fixed Costs	.001	1	.001	.002	.961	.000
Time and Materials	27.834	1	27.834	48.772	.000	.198
Error	112.426	197	.571			

The results of the simple regression analysis are presented in Table 10. When examining the regression analysis results for this hypothesis, there was a significant positive relationship between the time and material variables, and the competitive advantage of the organization. In fact, the model predicted that for every unit increase in the time and material contract, the competitive advantage of the organization would increase by .54 units, after controlling for the fixed costs contract and offshore outsourcing. This meant that when the scores for the time and material contracts increased, the competitive advantage of the organization increased as well. This model was able to explain 21.8% of the variation in the competitive advantage scores as indicated by the R squared value for the model.

Table 10. *Simple Regression Results for Competitive Advantage with Offshore Outsourcing and Type of Contract.*

Parameter	B	SE	t	P	$\eta^2$
Intercept	1.196	.302	3.960	.000	.074
Offshore Outsourcing	.016	.056	.280	.780	.000
Fixed Cost	.004	.074	.048	.961	.000
Time and Material	.543	.078	6.984	.000	.198

H1b: National culture factors of host country (power distance, individualism, masculinity, Confucianism, and uncertainty avoidance) and MNC offshore outsourcing are significant explanatory variables of the competitive advantage of multinational corporations.

To address this hypothesis, an ANOVA with a simple regression analysis was used. This was done to determine whether the national culture factors as well as the offshore outsourcing of the corporation had a significant positive impact on the competitive advantage of the corporation. For this hypothesis, the dependent variable was the competitive advantage of the corporation, while the independent variable was the offshore outsourcing of the corporation as well as national culture factors of the host country. This included the power distance, individualism, masculinity, Confucianism, and uncertainty avoidance. The ANOVA results are presented in Table 11. There was not a significant relationship between the offshore outsourcing of the corporation and the competitive advantage of the corporation  $F(1, 198) = 2.32, p = .13; \eta^2 = .01$ , and there was not a significant relationship between the masculinity national culture and the competitive advantage  $F(1, 198) = .23, p = .63; \eta^2 < .01$ .

Similarly, there was not a significant relationship between the uncertainty avoidant national culture and the competitive advantage of the corporation  $F(1, 198) = 2.40, p = .12; \eta^2 = .01$ . This meant the degree of offshore outsourcing, the masculinity or uncertainty avoidant national culture did not significantly explain the variation in the competitive advantage of the corporation. There was, however, a significant relationship between the power distance national culture and the competitive advantage of the corporation  $F(1, 198) = 4.59, p = .03; \eta^2 = .02$ , the individualism national culture and competitive advantage of the corporation  $F(1, 198) = 16.01, p < .01; \eta^2 = .08$ , and the Confucianism national culture and the competitive advantage of the corporation  $F(1, 198) = 10.47, p < .01; \eta^2 = .05$ .

Table 11. *Analysis of Variance Results for Competitive Advantage with Offshore Outsourcing and National Culture.*

Source	SS	df	MS	F	p	$\eta^2$
Offshore Outsourcing	1.283	1	1.283	2.315	.130	.012
Power	2.545	1	2.545	4.594	.033	.023
Individualism	8.871	1	8.871	16.012	.000	.075
Masculinity	.128	1	.128	.232	.631	.001
Uncertainty Avoidant	1.331	1	1.331	2.402	.123	.012
Confucianism	5.802	1	5.802	10.473	.001	.050
Error	109.694	198	.554			

The results of the simple regression analysis are presented in Table 12. When examining the regression analysis results for this hypothesis, there was a significant positive relationship between the individualism and Confucianism national cultures, and the competitive advantage of the corporation, while there was a significant negative relationship between the power distance of the corporation and the competitive advantage of the corporation. In fact, the model predicted that for every unit increase in the individualism national culture, the competitive advantage of the corporation increased by .38 units, after controlling for the other variables in the model. This meant that when the scores for the individualism national culture increased, the competitive advantage of the corporation increased as well.

Similarly, the model predicted that for every unit increase in the Confucianism national culture, the competitive advantage of the corporation increased by .20 units, after controlling for the other variables in the model. This meant that when the scores for the Confucianism national culture increased, the competitive advantage of the corporation increased as well. Alternatively, the model predicted that for every unit increase in the power distance national culture, the competitive advantage of the corporation decreased by .16 units, after controlling for the other variables in the model. This meant that when the scores for the power distance national culture increased, the competitive advantage of the corporation decreased. This model was able to explain 25.1% of the variation in the competitive advantage scores as indicated by the R squared value for the model.

Table 12. *Simple Regression Results for Competitive Advantage with Offshore Outsourcing and National Culture.*

Parameter	B	SE	t	p	$\eta^2$
Intercept	1.290	.337	3.830	.000	.069
Offshore Outsourcing	-.092	.060	-1.522	.130	.012
Power	-.158	.074	-2.143	.033	.023
Individualism	.379	.095	4.001	.000	.075
Masculinity	.040	.083	.481	.631	.001
Uncertainty Avoidant	.137	.088	1.550	.123	.012

Parameter	B	SE	t	p	$\eta^2$
Intercept	1.290	.337	3.830	.000	.069
Confucianism	.204	.063	3.236	.001	.050

H1c: Market freedom factors and MNC offshore outsourcing are significant explanatory variables of the competitive advantage of multinational corporations.

To address this hypothesis, an ANOVA with a simple regression analysis was used. This was done to determine whether the market freedom factors as well as the offshore outsourcing of the corporation had a significant positive impact on the competitive advantage of the corporation. For this hypothesis, the dependent variable was the competitive advantage of the corporation, while the independent variable was the offshore outsourcing of the corporation as well as market freedom factors. The market freedom factors included the dichotomous variables based on whether the corporation did a lot or substantial offshore outsourcing with China or India. The ANOVA results are presented in Table 13. There was a significant relationship between the offshore outsourcing and the competitive advantage of the corporation  $F(1, 209) = 10.84, p < .01; \eta^2 = .05$ , the China market freedom variable and competitive advantage of the corporation  $F(1, 209) = 7.10, p < .01; \eta^2 = .03$ , and the India market freedom variable and the competitive advantage of the corporation  $F(1, 209) = 10.58, p < .01; \eta^2 = .05$ . This meant the China and India market freedom variables as well as the offshore outsourcing variable significantly explained the variation in the competitive advantage of the corporation.

Table 13. Analysis of Variance Results for Competitive Advantage with Offshore Outsourcing and Market Freedom.

Source	SS	df	MS	F	p	$\eta^2$
China Market Freedom	4.633	1	4.633	7.100	.008	.033
India Market Freedom	6.901	1	6.901	10.575	.001	.048
Offshore Outsourcing	7.071	1	7.071	10.835	.001	.049
Error	136.394	209	.653			

The results of the simple regression analysis are presented in Table 14. When examining the regression analysis results for this hypothesis, there was a significant positive relationship between the China and India market freedom factors as well as the offshore outsourcing variable and the competitive advantage of the corporation. In fact, the model predicted that for every unit increase in offshore outsourcing, the competitive advantage of the corporation increased by .23 units, after controlling for the market freedom variables in the model. This is different from what was observed in the previous hypotheses, where the offshore outsourcing was not significant. This indicated the offshore outsourcing of the corporation may be significantly related



whether the corporation outsourced to China or India as measured by the market freedom variables.

In terms of the market freedom variables, if the corporation did outsource to China or had more market freedom then the competitive advantage of the corporation would increase by .37 units when compared to the corporations that did not outsource to China or had less market freedom. Similarly, if the corporation did outsource to India or had more market freedom then the competitive advantage of the corporation would increase by .45 units when compared to the corporations that did not outsource to India nor had less market freedom. This meant that for those who did have a lot or substantial outsourcing involvement with China or India, they would have a higher competitive advantage than those who had little or no outsourcing with China or India. Overall, this model was able to explain 10.8% of the variation in the competitive advantage of the corporation as indicated by the R squared value of the model.

Table 14. *Simple Regression Results for Competitive Advantage with Offshore Outsourcing and Market Freedom.*

Parameter	B	SE	t	p	$\eta^2$
Intercept	2.029	.239	8.487	.000	.256
China – More Market Freedom	.372	.140	2.665	.008	.033
India – More Market Freedom	.454	.140	3.252	.001	.048
Offshore Outsourcing	.226	.069	3.292	.001	.049

#### Summary of Findings

Based on the results and findings for this study, for the first hypothesis there was not a significant relationship between the offshore outsourcing of the corporation and the competitive advantage of the corporation. For part (a) of the hypothesis, there was once again no significant relationship between the offshore outsourcing and the competitive advantage of the corporation, after controlling for the type of contract. There was, however, a significant positive relationship between the time and materials contract, and the competitive advantage of the corporation, but there was no relationship between the fixed costs and competitive advantage of the corporation.

As for part (b) of the hypothesis, the offshore outsourcing was not significantly related to the competitive advantage after controlling for the national culture variables. Similarly, there was not a significant relationship between the masculinity or uncertainty avoidant national cultures with the competitive advantage of the corporation. There was a significant negative relationship between the power distance of the corporation and the competitive advantage, while there were significant positive relationships between the individualism and Confucianism national cultures, and the competitive advantage of the corporation.

Finally, for part (c) of the hypothesis, there was a significant relationship between all of the independent variables and the dependent variable in the model. This meant the offshore outsourcing of the corporation was significantly related to the competitive advantage of the corporation after controlling for the market freedom factors of the participants. The relationship between the offshore outsourcing and the competitive advantage was positive. Similarly, there

was a positive relationship between the China and India market freedom variables with the competitive advantage of the corporation. This meant that those who had a lot or substantial involvement with China or India in terms of offshore outsourcing had higher competitive advantages when compared to those who had little or no involvement with China or India in terms of offshore outsourcing.

### Discussion

Offshore outsourcing is commonplace among most U.S. and western corporations (Hemphill, 2004). Current technological and telecommunications advances have only fueled the growth of the use of outsourcing as a business practice. It is expected for this growth to continue and that by 2015 the U.S. market will outsource 3.3 million employment opportunities and will pay \$136 billion in salaries (Hemphill, 2004). This is an increase from the currently estimated two million jobs outsourced. With the increasing popularity of outsourcing comes an ongoing debate of whether outsourcing is good for the domestic economy and for outsourcing companies alike. Outsourcing reduces cost and allows companies to focus on core business and maintain competitiveness in the marketplace domestically. Outsourcing also eliminates jobs domestically and may result in the loss of incentives for technological advancement.

### Practical Implications

The results and analyses herein have helped answer questions about what elements of offshore outsourcing have a significant effect on the competitive advantage of United States multinational corporations. The results and analyses herein can be applied in practice. Some examples of the practical usage of the results and analyses are these:

1. These results could assist in what Carmel and Agarwal (2002) describe as an “offshore bystander phase.” During this stage, companies weigh their options with respect to the cost effectiveness of outsourcing in different environments. Several aspects of this study could guide prospective outsourcers in a direction that leads them to an increased competitive advantage (and steer them away from those that do not increase competitive advantage).
2. The results and analyses herein could help settle the ongoing debate of whether outsourcing is the proper measure for corporations to take to result in the economic well being of not only the corporation but also the domestic economy. This study could add to the debate, however, merely giving one side of the debate more argumentative evidence.
3. The results in this study regarding national cultures impact on competitive advantage could be used to assist in finding a point of synchronicity, when links between offshore outsourcing and Hofstede’s (2003) Cultural Dimensions model.
4. The results and analyses in this study could be used for companies that currently are outsourcing to re-evaluate their position and determine the importance of their outsourcing. Companies could adjust or amend their current outsourcing plans to create more of a competitive advantage based on the relationships provided in this study. Moreover, some companies could view the results here and decide to eliminate some or all of their outsourcing.

## Conclusions

The results and analyses of data in this study have led to some general and specific conclusions about the relationship between offshore outsourcing and the competitive advantage of United States multinational corporations. These conclusions include the following:

1. Offshore outsourcing has no significant impact on the competitive advantage of a multinational corporation. This was the subject matter of the first hypothesis, which failed when tested with a combined approach made up of analysis of variance results and simple regression analysis. It should be noted that while a positive relationship did exist, it was not nearly significant. This small relationship was able to account for only .2% of the variation in the competitive advantage scores.
2. There is a positive significant relationship between the time and material contract type, and the competitive advantage. For each unit increase in the time and material contract, the competitive advantage increased .54 units. No significant relationship exists when the fixed cost contract type is used. These findings are consistent with Gopal et al.'s (2003) suggestions.
3. National culture has an effect on competitive advantage. Significant positive relationships between culture and comparative advantage existed for individualism national culture and Confucianism national culture. A significant negative relationship existed between power distance national culture and competitive advantage. Masculinity national cultures and uncertainty avoidance national cultures had no discernable relationship with the competitive advantage. These findings are consistent with Cuoto and Vieira (2004), Nakata and Sivakumar (1996), and Hofstede (2003) in the sense that national culture matters. Discrepancies with regard to findings about particular cultures exist and are detailed earlier in this paper.
4. Market freedom factors and multinational corporations' offshore outsourcings are significant variables of the competitive advantage of multinational corporations. The model predicted that for every unit increase in offshore outsourcing, the competitive advantage of the corporation increased by .23 units, after controlling for the market freedom variables in the model. Also, more market freedom in China resulting in an increase of competitive advantage by .37 units. Similarly, a one unit increase in market freedom in India resulted in an increase of competitive advantage by .45 units. This indicates that companies that conducted outsourcing gained the largest competitive advantages.

## Limitations

Some limitations of this study were inherent to its methodology. These limitations include the following:

1. A selection bias may exist since it cannot be determined which people will respond to the distributed surveys. It is possible corporate employees other than managers, procurement managers, and assistant managers have access to offshore outsourcing information.
2. Responders' answers to different questions may have been conflicting.
3. Responders may not answer all posed questions on the questionnaire.

4. Responders may not answer the questions with complete accuracy or with any accuracy at all.
5. The internal validity of the study is weakened because of a lack of evidence in the internal validity for the questions based on Couto (Couto & Vieira, 2004) are a concern.
6. The internal validity of the study also is weakened since the study was not experimental in nature.
7. The study's focus on telecommunications multinational corporations limits the application of the results to other multinational corporations.

#### Recommendations for Future Study

Because the study was conducted focusing mainly on telecommunications multinational corporations, future studies also should examine the effects of offshore outsourcing on other types of multinational corporations in an effort to develop a more clear understanding of the effects of offshore outsourcing across all multinational corporations.

1. Because a quantitative study cannot capture the essence of employees' thoughts and feelings, future studies should include a qualitative research approach. Such an approach may reveal new theories regarding the relationship between offshore outsourcing and competitive advantage.
2. Because this study focused mainly on outsourcing to China and India, future studies could explore outsourcing to other countries. As time progresses and countries develop, other countries are sure to emerge as prime locations for outsourcing, and a future study could examine outsourcing in these countries, whatever they may be.
3. Because this study was limited to United States multinational corporations, future studies should attempt to study the impact of offshore outsourcing on the competitive advantages of other nations.

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# **Perceived Impact of District Leadership Practices on School Climate and School Improvement**

**Donovan A. McFarlane**

## **Abstract**

This paper presents the findings of research examining the impact of the perceived leadership practices of school district leaders, superintendents' leadership practices on school climate and school improvement based on a survey consisting of leadership practices statements assessed by observer-principals in large urban school districts using the Leadership Practices Inventory (LPI) Online, and its exemplary leadership construct or framework, along with existing literature on the superintendency, the principalship, and efficacy affects across school district leaders and personnel. The author evaluates the literature, and relates findings and discoveries correlating with, and differing from, those in the current study being reported. Implications for district leadership and the superintendency are discussed consistent with the themes of school improvement, school climate, accountability, increased student achievement, and the current challenges to success in public schools.

## **Introduction**

Leadership is the key variable impacting and determining organizational performance and success as leaders develop vision for change and influence others to share their vision (Zekeri, 2004). Regardless of industry type, product, service, sector, prevailing and emerging organizational culture, leadership affects outcomes through the ability of leaders to directly and indirectly influence our perceptions, behaviors, attitudes, values, and ultimately, our inclination to be responsible and accountable in our roles. The public school system is one area in which leadership, especially emanating from administrators at the school district level is having tremendous impact on the state and future of education. Writers, practitioners, and researchers such as Waters and Marzano (2006), Leithwood (1994), and Marzano, Walters, and McNulty (2005), among others, have long deliberated on the impact of district leadership on schools, schooling, the quest for effective schools and improved student achievement, higher test scores, and greater accountability with major focus on the school superintendent as the key district leader. The rationale for singling out the superintendent as the responsible leader among so many for school improvement and increased student achievement stems from his or her job as the chief of the school district system and,

[An] understanding [that] the superintendent's leadership practices and behaviors are very important in understanding the nature of leadership and important attributes of an effective school district, and the influencing relationship that affects school success because research has proven that the superintendent's leadership is a major factor influencing school success or failure (McFarlane, 2010, p. 8).

District leadership matters (Griffiths, 1966; Blumberg, 1985, 1989; Murphy & Hallinger, 1986; Paulu, 1988; Leithwood, 1989b, 1994; Buck, 1991; Thomas & Moran, 1992; Bjork, 1993; Sergiovanni, 1994b; Norton, Webb, Dlugosh, & Sybouts, 1996; Hoyle, 2002; Lashway, 2002; Brunner, Grogan, & Bjork, 2002; Leithwood & Riehl, 2003; Marzano, Walters, & McNulty, 2005; Waters & Marzano, 2006; Chapman, 1997; Brent, 2007; McFarlane, 2010). These researchers and practitioners in educational administration and leadership have time and again reasserted the importance of district leadership in building successful schools and improving performance score cards in public schools. The call for school improvement and improved student achievement in public education has increased the attention given to the superintendent as the chief school district leader, and has dramatically increased his or her responsibility and accountability as the key player in school reform (Paulu, 1988). Since the publication of *A Nation at Risk* (United States, National Commission on Excellence in Education, 1983), the call for improved schools has become a fixture of educational reforms and policies. The politicization of education after the publication of the famous *A Nation at Risk* led to increasing pressures on superintendents and school districts to strengthen standards, test more rigorously, and increase school choice (Brunner, Grogan, & Bjork, 2002). Moreover, McFarlane (2010) argues that, "This led to an interest in systemic reform and further research into leadership and redefinition of the superintendency. Reformers placed added demands on superintendents to develop methods for improving performance and using distributive leadership for system-wide improvements" (p. 59). In addition, consistent with this expectation of superintendents or district leaders as the key to effective schools, governmental policies and funding in education have been designed decisively to effectuate changes, and shape school district policies and leadership to meet the increasing demands for better schools, and improved student achievement and performance.

According to Fuchs (2006), as the chief school administrator, the superintendent assumes primary responsibility for the effective and efficient operation of the school district. Fuchs (2006) argues that the role of the 21<sup>st</sup> century superintendent by its very nature is an increasingly challenging and complex one, in which challenging issues and conflicts surface with boards, special interest groups, town councils, teachers unions, and imposed mandates from political forces at both the state and federal levels. While researchers do not agree on any specific factors or attributes that make for an effective superintendent (Chance, Butler, Ligon, & Cole, 1992; Yee & Cuban, 1996; Lashway, 2002), there is common agreement that the most powerful position in a public school system that can implement change for improvement is the superintendency (McFarlane, 2010; Halloran, 2007). Thus, the lack of success in public schools has been blamed on lack of effective leadership with superintendents being particularly vulnerable to blame for such shortcoming (McFarlane, 2010; Johnston, 2000). Effective and successful school district leadership depends on the leadership practices of superintendents, and how these existing leadership practices impact school climate and culture through efficacy affects to influence school success and student achievement (McFarlane, 2010; Rowland, 2008; Liu & Meyer, 2005; Houchard, 2005; Tschannen-Moran & Gareis, 2004; Hunter-Boykin & Evans, 1995; Wentworth, 1990; Araki, 1982).

As the nation's competitiveness decreases, and State-by-State scorecards and national education research and statistics point to declining student achievement, and a need for more effective schools, school district leaders must face courageously the school leadership challenge by (1) closing the gap between what students know, and what they need to know to be competitive and successful in a global marketplace; (2) meeting public expectations and keeping



its faith and support; and (3) effectively competing with private schools and other alternative educational structures (Hale, 1999; McFarlane, 2010).

School district superintendents have a gruesome challenge in today's complex and changing educational environment. They must become pioneers to initiate creative programs and strategies that make their school districts superior examples of progress and results in public education as the call for greater accountability increases. (McFarlane, 2010, p. 2)

## Review of Literature

### *The Importance of Effective District Leadership*

Leadership is central in school improvement processes because “almost everything depends on leadership” (Stover, 2005, p. 1), and especially the prevailing district culture and school climate that develop over time as leadership practices affect the behaviors of principals, teachers, staff, and students (McFarlane, 2010). According to McFarlane (2010), district leadership is important because the superintendent's leadership can be a source of building or breaking school cultures, climates, values, and school team leadership motivation and attitudes based on his or her leadership style, and, moreover, perceived leadership practices in terms of effectiveness by principals and teachers. In an age of accountability, leadership by key district personnel in public schools is the essential factor determining the direction and future of schools, school effectiveness, and student achievement as decisions vital to improving educational activities, and instructional processes and contents are made at this level. “Just as schools need effective leaders, so do school districts, and the superintendent is the key person to lead the school district” (McFarlane, 2010, p. 7). School district leadership from the superintendent helps to determine how schools are organized and governed by school level administrators such as directors, principals, and assistant principals, and instructional staff or teachers. Cultural and climatic aspects of schools are shaped by district leadership practices and policies (Stover, 2005; MacNeil & Maclin, 2005). Furthermore, “leadership at the district-level adds value to an education system” (Waters & Marzano, 2006, p. 8). It is the responsibility of district leaders to add value to schools by engaging in effective leadership practices that positively influence school personnel and school improvements to enhance student learning outcomes and performance.

School district leadership is the broader level at which school leaders can develop effectively the acumen to lead schools with inputs from the various publics that are stakeholders and influencing decisions and policies by local, state, and federal authorities funding and impacting school choice with politics and laws. The district superintendent becomes the key advocate, translator, and interpreter of broader policies that influence school curriculum, culture, and climate. Waters and Marzano (2006) link superintendent leadership to student achievement based on the four aspects of superintendent's leadership role relevant to school district effectiveness as their research has uncovered: (1) for student achievement to improve district-level leadership matters; (2) effective superintendents focus their effort on creating goal oriented districts; (3) superintendents' tenure is correlated positively with student achievement; and (4) superintendent leadership that allows defined autonomy or increased building autonomy is

associated with an increase in student achievement. Furthermore, the focus on district-level leadership is a logical approach to examine the school crisis (McFarlane, 2010).

### *The Superintendency*

There are many existing studies that provide an historical overview of the superintendency (Callahan, 1962; Carlson, 1972; Cuban, 1976, 1988; Murphy, 1992; Thomas & Moran, 1992; Chapman, 1997; Blount, 1998; Bjork & Lindle, 2001; and Fuchs, 2006). According to Fuchs (2006) and McFarlane (2010), these studies portray the superintendency as a position that is influenced greatly by and sprung out of the industrial revolution, and one that allowed individuals a great deal of authority and autonomy. The superintendency has experienced dramatic changes over the past several decades with changing economic and political climates. The changes since the publication of *A Nation at Risk* and since the 1990s have been profound as economic processes such as technological development, competition, and globalization affect the nation's ability to compete effectively have placed school improvement and student achievement in the spotlight with the superintendent at the helm of the public education system.

According to Callahan (1962), the need to educate the masses and the need to firmly establish secondary education were two major factors that led to the creation of a superintendent of schools in the United States public education system with the major role of the superintendent from 1865 through early 1900s being that of educator. Fuchs (2006) tells us that around 1910, the role of the superintendent changed from that of scholar and educator to business manager because there was a new orientation toward a corporate business model. This new transformation made responsibilities the major focus of the superintendency, along with two other factors: the management of resources, and development and planning of curriculum. This change was to be followed by further transformation as in 1930 the job responsibilities of the superintendent shifted once more (Callahan, 1962; Fuchs, 2006). Fuchs (2006) states democracy and democratic schooling were the major emphasis between 1930 and the 1950s. With this, "The superintendent became a negotiator and statesman, cultivating community relations in order to gain the moral and financial support of the community" (p. 4). Cuban (1988) provides two major reasons for this shift: the lack of job security, and the desire to achieve personal and professional goals (McFarlane, 2010). The 1960s and 1970s brought further changes to the superintendency because of the social unrest associated with this period (McFarlane, 2010). During this period, Chapman (1997) believes special interests consideration became a major factor in school board membership, and this affected the superintendency. Cuban (1976b) states that, in the 1970s, superintendents not only managed schools based on thoroughness and efficiency but also had to make political considerations and factors part of their work. In the 1980s, the United States saw an emphasis on school reform in the education sector of government and society (McFarlane, 2010). With the emphasis on school reform that came through in the 1980s, the superintendent's role began imaging corporate leadership with political strategizing as a mainstay (Fuchs, 2006). During this period, "The superintendent became a change agent" (Fuchs, 2006, p. 6). The 1990s and early 2000s for the superintendency brought more challenges and changes to the responsibilities, roles, and jobs of superintendents as this period was marked by a new wave of reform, and accountability became a major factor including the *No Child Left Behind Act* (NCLB)

as signed into law by the 43rd President of the United States, George W. Bush in 2001 (McFarlane, 2010; Fuchs, 2006).

The superintendent of today's public school district is the product of over a century of rigorous changes in educational standards, educational reforms, accountability demands, and the surrounding economic, political, cultural, and legal climate that shaped the role and responsibilities in a current globally competitive arena in which effective schools are essential to national progress. The role and responsibilities of the superintendent in today's high-accountability school system have been defined relative to perception of effective or exemplary leadership. The Council of the Great City Schools (2003) and the Thomas B. Fordham Institute (2003) identify several characteristics of effective superintendents. Effective superintendents have (a) clear vision of how an effective school should function; (b) a clear sense of how to achieve the vision; (c) the ability to gain the support necessary to proceed; (d) the ability to sustain reform efforts over time by keeping focused; (e) a reform plan that included accountability and assessed outcomes; (f) an effective manager's political acuity; and (g) the fortitude to move forward when faced with difficult challenges (cited in McFarlane, 2010, p. 63).

Effective superintendents must be able to answer the accountability call for more effective schools and improved student achievement by improving their leadership practices across districts through collaborative and participative leadership with attention to specific competencies, their individual attributes as these affect leadership success and influence, leadership outcomes, career experiences, and environmental influences (Mumford, Zaccaro, Harding, Owen-Jacobs, & Fleishman, 2000). In attempting to answer to the call for more effective schools and improved student achievement, superintendents as district-wide leaders must (a) work through others; (b) be comfortable with contradiction; (c) appreciate dissent; (d) develop critical awareness of how students are served; and (e) adopt and apply an ethic of care to the role and profession (Brunner, Grogan, & Bjork, 2002; McFarlane, 2008). Today's communities expect their superintendents to take charge of school districts, and provide answers to all questions and solutions to all school-related problems (Berry, 1993; Rammel, 1999).

### *The Principalship*

It is extremely difficult to describe the position, role, and responsibilities of the superintendent without examining the principalship, since principals are the school-level leaders and administrators that work closely with the superintendent to translate district-wide policies on curriculum and school operations into tangible or measureable student teaching, student, and learning outcomes. Good school principals are the cornerstones of good schools (Tipton, 2007).

The study of principals' leadership has shifted from what principals actually do to their impact on the organization and effectiveness of schools (Tipton, 2007). Perhaps this shift is concordant with the changed roles of superintendents given increasing demand for accountability that drives collaborative and participative leadership in school district systems. Donaldson (1991) describes three major roles of the principal: (a) committing time, energy, and attention to activities that advance the education of children; (b) identifying the proper people to involve in essential activities and providing for their success; and (c) understanding and developing proper relationships to maximize these people's and the school's success. Apart from being effective school-level administrators and instructional leaders, effective principals of the 21<sup>st</sup> century must work collaboratively with school stakeholders, and especially closely with superintendents to

respond to the demand for better schools and higher student performance (McFarlane & Britt, 2008).

Principals today face the educational challenges of change and restructuring initiatives (Schmook, 1996). Lipham (1981) argues the principal's leadership is a critical factor in the success of schools. Effective principals exist where there is effective district-wide leadership acting as a positive driving force for change in the school system (McFarlane, 2010). Thus, principals must communicate and work closely with superintendents to transform their vision of the schools into reality. "Effective principals have been seen as key personnel to guide the development of goals for staff, faculty, and students, and skillful in a variety of behavioral dimensions" (Schmook, 1996, p. 9). They understand their roles as transformative agents and focus their leadership on developing the school climate, the intellectual stimulation of staff, and the facilitation of staff professional growth to make a positive learning environment for students (Marley, 2003) as directed by superintendents, and district policies and actions.

### Theoretical Framework of Study

The interactions of school-site individuals affect school effectiveness. The superintendent's role as the school district leader or school district director can have a positive or negative influence on principals' sense of self-efficacy—affecting principals' motivation, leadership, and attitude, which trickle down to affect teachers and other school-site personnel, thereby affecting the quality of school and success of its pupils through a collective efficacy effect (Bandura, 1984; Barth, 1988; and Tschannen-Moran & Gareis, 2004). Leadership is central in school improvement processes because "almost everything depends on leadership" (Stover, 2005, p. 1), and especially the prevailing district culture and school climate that develop overtime as leadership practices affect the behaviors of principals, teachers, staff, and students. There is a direct linear relationship between district level leadership effectiveness, school level leadership effectiveness, and instructional (teacher) leadership effectiveness and student achievement (Rowland, 2008; Bentley & Rempel, 1972; Wentworth, 1990; Cook, 1979; Tye & O'Brien, 2002; Hardy 1999; Liu & Meyer, 2005). In addition, leadership emanating from superintendents will determine the type of culture that develops as leadership practices affect principal and teacher behaviors, and shape the climate as one that is supportive or unsupportive. Supportive climates promote successful schools (MacNeil & Maclin, 2005). The theoretical framework for the study is depicted diagrammatically in *Figure 1*.

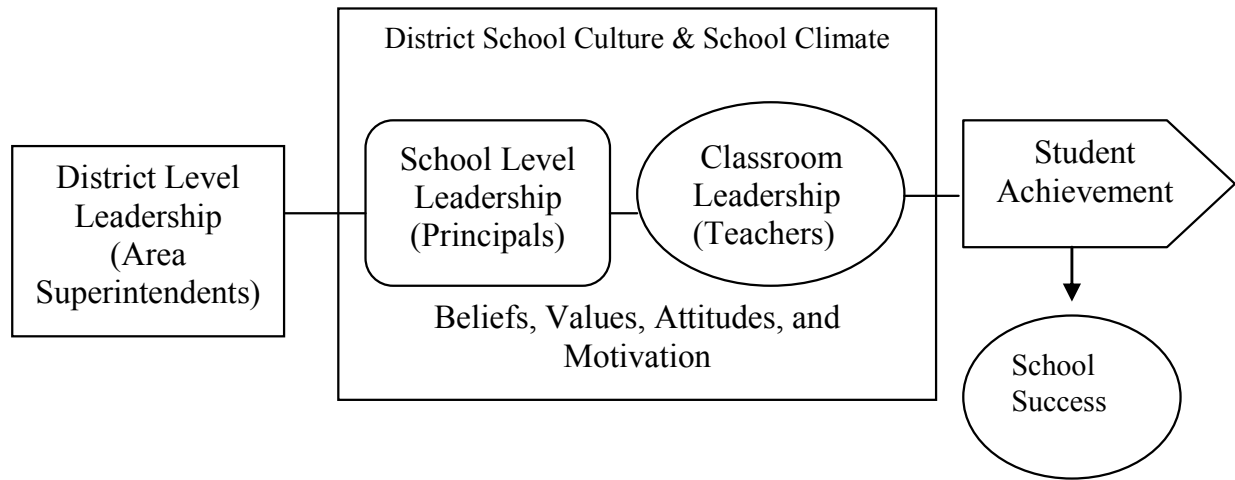


Figure 1. Relationship between District and School Leadership, and School Effectiveness in Large Urban School Districts.

Considering superintendents' leadership practices construed from Kouzes' and Posner's theoretical variables of leadership effectiveness; challenging the process, inspiring a shared vision, enabling others to act, modeling the way, and encouraging the heart (Kouzes & Posner, 1998, 2003a), the degree of effectiveness with which these are carried out based on principals' perceptions and stakeholder impact can determine the prevailing district climate and culture. Consequently, the district culture, in turn, can affect school climate and culture through superintendents' perceived leadership effectiveness as being positive or negative by school team leadership—principals, other personnel, and teachers—and affects principals' sense of self-efficacy (Tschannen-Moran & Gareis, 2004; Rowland, 2008), which in turn affects teacher's self-efficacy and morale (Rowland, 2008; Tye & O'Brien, 2002; Liu & Meyer, 2005), which in turn affects student achievement (Hunter-Boykin & Evans, 1995; Wentworth, 1990; Araki, 1982; and Houchard, 2005).

Self-efficacy is a cognitive theory of motivation that deals with one's core beliefs about being able to perform successfully a given task; positive self-efficacy relates to confidence in the power to create desired effects, while negative self-efficacy relates to self-debilitating beliefs (Hughes, Ginnett, & Curphy, 2009). According to McFarlane (2010), "superintendents' leadership practices can affect their...principals' sense of self-efficacy positively or negatively and hence school-level leadership practices" (p. 6). McFarlane (2010) argues that,

Effective leadership creates effective followership and effective leaders have effective followers, effective...superintendents encourage effective principals, and effective district leadership encourages effective school leadership. Thus, the superintendent's leadership practices and behaviors are of paramount importance in examining the framework and platform for more effective and improved schools (p. 6).

Effective superintendents are exemplary leaders who inspire a shared vision, model the way, challenge the process, encourage the heart, and enable others to act (Kouzes & Posner, 2003b),

and the degree to which they engender these five practices of exemplary leaders can provide insight into their leadership practices as they affect school climate and school improvement efforts. Research indicates efficacy influence based on principals' perceptions of leadership roles of their immediate superiors (superintendents, area superintendents, or area directors) and self-roles affect principals' leadership and effectiveness, school climate, student achievement, and school improvement and effectiveness (Tschannen-Moran & Gareis, 2004; Delisio, 2005; Stover, 2005; MacNeil & Maclin, 2005; Graham, 2007; and Rowland, 2008). District level leadership affects student achievement and school success by impacting school climate as it shapes the behaviors, attitudes, values, beliefs, and motivation of school or building level personnel such as principals and teachers (Stover, 2005; Rowland, 2008; University Outreach & Engagement of Michigan State University, 2004; MacNeil & Maclin, 2005; Western Alliance for the Study of School Climate, 2004).

### Methodology

In large urban public school districts, the roles, responsibilities, and functions of the superintendency as a key position in school leadership and performance cannot be carried out adequately by a single individual (McFarlane, 2010). As a result, large urban school districts have several superintendents who are called area superintendents, and sometimes area directors or regional superintendents according to existing literature. These area superintendents govern school district areas usually by cardinal divisions such geographic quadrants, for example south, north, etc. Area superintendents shadow central superintendents by governing district areas in the same capacity as do smaller districts with one central district leader or superintendent (McFarlane, 2010). This study examined several large school district areas to assess the perceived leadership practices of superintendents as they impact school climate and school improvements.

This study utilized a descriptive and inferential approach in determining principals' perceptions of superintendents' leadership practices by looking at the leadership roles and responsibilities, practices, and behaviors of the superintendents using the five practices of exemplary leaders in the Leadership Practices Inventory (LPI) 360 and assessing school climate impact using school climate ratings by faculty/staff, parents, and students from available school climate data.

### *Research Design*

This study used a descriptive and inferential approach to determine principals' perceptions of superintendents' leadership practices while assessing school climate impact based on ratings from faculty/staff, parents, and students. The descriptive method of research is a type of quantitative research that involves making careful descriptions of educational phenomena (Gall, Gall, & Borg, 2005). Using the descriptive method, the researcher examined the concept of leadership practices using the LPI 360 Online by Kouzes and Posner (2003c). Superintendents are expected to utilize exemplary leadership practices since they not only train leaders but also apply leadership theories and examples pervasively in performing their roles and responsibilities (Ahmadi, Helms, & Raiszadeh, 2001; Whitworth, Price, & Randall, 2002; Lucey, 1999; Oyinlade, 2006). The descriptive method is a suitable method for this study because descriptive studies are concerned primarily with determining "what is" (Gall, Gall, & Borg, 2005).

### *Population and Sampling Method*

Participants in this study included the population of principals and their corresponding superintendents in three large urban public school districts. The population of principals represented the following school levels in the public school system: elementary, middle, and high schools. A census method was used for this research since the entire population of principals and superintendents in the districts was approached for the study. The population for this study also reflected diverse characteristics, reflecting several diverse educational and social backgrounds: race, gender, ethnicities, and experiences. The total population consisted of superintendents and principals. The total number of principals available to participate was 253 reporting to three superintendents. The significance level of 0.05 was used for all the statistical tests in the study, unless otherwise indicated.

### *Instrumentation*

The Leadership Practices Inventory (LPI), Third Edition, by Kouzes and Posner (2003c) was the instrument selected for this study. The LPI was developed from both quantitative and qualitative indices with in-depth interviews and written case studies from “People’s Personal-Best Leadership” experiences to formulate the conceptual framework, which consists of five key leadership practices or habits of effective leaders: (1) Model the Way, (2) Inspire a Shared Vision, (3) Challenge the Process, (4) Enabling Others to Act, and (5) Encouraging the Heart; these are known as the Five Practices of Exemplary Leaders (Kouzes & Posner, 2003b). The LPI, Third Edition, as of 2003, is comprised of thirty statements, with six to each of the five leadership practices. The LPI 360, Third Edition, has a very short completion time of around ten minutes or less with computer-based scoring options with a ten-point frequency or Likert Scale: (1) Almost never do what is described in the statement; (2) Rarely; (3) Seldom; (4) Once in a while; (5) Occasionally; (6) Sometimes; (7) Fairly Often; (8) Usually; (9) Very Frequently; and, (10) Almost always do what is described in the statement (Kouzes & Posner, 2003c; Lpionline, 2010). The LPI is a suitable instrument for this study because it validly measured superintendent’s leadership practice for effectiveness based on established theoretical framework. Both the Self and Observer forms of the Leadership Practices Inventory show good internal reliability with Cronbach’s Alpha coefficients ranging from .75 to .92 (Kouzes & Posner, 2003c).

Kouzes and Posner (2000, 2002) testify the LPI has both face validity and predictive validity and, as such, is suitable for making predictions about leadership effectiveness. The Leadership Practices Inventory has face validity and predictive validity and the results gained from its usage make sense as it is significantly correlated to several performance measures (Balcerek, 1999). Kouzes and Posner (2003c), state that, in numerous tests, the Leadership Practices Inventory shows good internal reliability with Cronbach’s Alpha coefficients ranging from 0.75 to 0.92. For this study, the Cronbach’s alpha was used to test the reliability of the instrument. Reliability was excellent with  $\alpha = 0.95$ .

### *Data Collection Procedures*

A descriptive design using survey, along with the LPI Online 360 and demographic data sheet, were used to collect leadership practices data. The school climate data for the study was

obtained through publicly available information and reports on school district. Participants were contacted and provided with access to the LPI 360 Online Self and Observer assessments via electronic links delivered to their e-mail addresses to complete the survey, and were given three weeks and two days to respond. The researcher provided contact information and follow-up to letters after ensuring LPI Online administration surveys and assessment forms were available for respondents' access. A Questionnaire containing five demographic questions was added to the LPI Self and Observer for all participants:

1. What is your gender: male or female?
2. What is your ethnicity: Black, White, Asian, Hispanic, or Mixed?
3. What is your highest degree earned: Bachelor, Masters, Specialist, or Doctorate?
4. Are you a principal at an Elementary, Middle, or High School? and
5. How many years of experience do you have as a principal?

### *Hypotheses*

The following hypotheses were developed and tested:

- Ho1:** There are no differences among the three superintendents' on the five types of leadership practices (i.e., Enable Others to Act, Encourage the Heart, Model the Way, Challenge the Process, and Inspire a Shared Vision as indicated by the LPI Observer).
- Ho2:** Among the three levels (elementary, middle, and high schools), there are no significant differences in the perceptions of principals with regard to their superintendents' perceived leadership practices as indicated by the Leadership Practices Inventory (LPI-Observer).
- Ho3:** There are no differences between the leadership practices of superintendents as perceived by principals and the Kouzes-Posner norms for the five exemplary leadership practices of the Leadership Practices Inventory (LPI).
- Ho4:** There are no differences in grading of school climate among the three districts or three stakeholder constituencies (faculty/staff, parents, and students).

### *Analysis and Results*

After the data collection was completed, the responses from the survey instrument (LPI 360), demographic questionnaire, and available school climate data were analyzed using the descriptive and inferential statistical techniques. Data was collected using surveys and statistical analysis conducted using SPSS.

**Ho1:** A one-way multivariate analysis of variance (MANOVA) was conducted to determine the differences among three superintendents on the five leadership practices: Model the Way, Inspire a Shared Vision, Challenge the Process, Enable Others to Act, and Encourage the Heart. Significant differences were found among the three superintendents on the dependent measures, Wilks'  $\lambda = .76$ ,  $F(5, 10) = 3.59$ ,  $p < .001$ . The multivariate  $\eta^2$  based on Wilks' was small, 0.13, in other words 13% of the variance in responses was attributed to the specific or unique superintendent being evaluated. The null hypothesis of no significant differences was rejected at the .05 level.



**Ho2:** A one-way analysis of variance was conducted to evaluate the differences among levels of school and the total LPI scores representing leadership practices. The independent variable, the level of schools factor, included three levels: elementary, middle, and high. The dependent variable is the total LPI scores. The ANOVA is not significant,  $F(3,124) = 0.384$ ,  $p = .76$  (Table 20). The null hypothesis was not rejected at the .05 level.

**Ho3:** A one-sample t-test was conducted to evaluate the hypothesis that there is no difference between the principals' perceptions of superintendents' leadership practices and the Kouzes and Posner (2003c) norms in each of the five leadership subscores of the LPI. The test was significant,  $t(127) = 24.29$ ,  $p < .001$  for Model the Way. Perceived leadership practice ( $M = 56.05$ ,  $SD = 3.99$ ) was significantly higher than the norm of 47.5. The test was significant,  $t(127) = 43.18$ ,  $p < .001$  for Inspire a Shared Vision. Perceived leadership practice ( $M = 56.73$ ,  $SD = 3.86$ ) was significantly higher than the norm of 42.0. The test was significant,  $t(127) = 22.84$ ,  $p < .001$  for Challenge the Process. Perceived leadership practice ( $M = 55.13$ ,  $SD = 5.32$ ) was significantly higher than the norm of 44.4. The test was significant,  $t(127) = 15.64$ ,  $p < .001$  for Enable Others to Act. Perceived leadership practice ( $M = 55.09$ ,  $SD = 5.27$ ) was significantly higher than the norm of 47.8. The test was significant,  $t(127) = 25.13$ ,  $p < .001$  for Encourage the Heart. Perceived leadership practice ( $M = 55.85$ ,  $SD = 4.93$ ) was significantly higher than the norm of 44.9. For all five exemplary leadership practices, the null hypothesis of no significant differences with the Kouzes-Posner norms was rejected at the .05 level.

**Ho4:** A 3 x 3 ANOVA was conducted to evaluate the effects of three types of respondents (parents, students, and staff/faculty) and three districts on grade point average (GPA) of school climate. The ANOVA indicated no significant interaction between types of respondents and areas,  $F(4,672) = 0.55$ ,  $p = .70$ , but significant main effects for type of respondent,  $F(2,672) = 15.38$ ,  $p < .001$ , partial  $\eta^2 = .04$ , and district,  $F(2,672) = 3.97$ ,  $p = .019$ , partial  $\eta^2 = .01$ . The type of respondent main effect indicated that faculty/staff gave higher grades in school climate than either parents or students. Furthermore, students gave lower grades in school climate than either faculty/staff or parents. The type of district main effect indicated that District 3 had higher grades in school climate than either District 1 or District 2. The null hypotheses of no differences in school climate grades by respondent type and districts were both rejected at the .05 level.

## Discussion

While all superintendents practice exemplary leadership based on the Kouzes and Posner (2003b) leadership model, the degree to which they practice exemplary leadership differed significantly on some of the five practices. In a study on superintendents' leadership practices using the Kouzes-Posner model and the LPI, Balk (1997) made the same findings. In addition, Hale (1999) and Rammel (1999) find superintendents do practice exemplary leadership through transformational actions as perceived by both the superintendents and principals. In a study, Sweeney (2000) finds that modeling the way and enabling others to act are perceived by principals to be most important. In this study, all three superintendents seemed to value modeling the way "highly" based on their perceived leadership practices by corresponding principals. The three superintendents differed significantly on the degree to which they enable others to act and encourage the heart.

In this study, using a one-way analysis of variance and a 95% confidence interval, the researcher found levels of schools, that is, elementary, middle, and high, do not result in any significant differences in principals' perceptions of superintendents' leadership practices. Thus, while other factors may be important in affecting the perceived leadership practices of the superintendents, consistent with findings in the literature, levels of schools has little or no significant impact. There has not been much research done on school levels and types and perceived leadership practices. The little research available shows mixed results. For example, Balk (1997) finds there is observable difference between the leadership practices of superintendents of residential schools for the deaf and regular schools. Balcerek (1999) finds that there is little difference in effective leadership practices between high performing and inadequately performing schools and that there was no statistically significant relationship between school performance levels based on principals' (Self) leadership assessment using the LPI.

This study found a difference between the perceived leadership practices of the superintendents and the Kouzes-Posner norm explored in the study as related to Model the Way, Inspire a Shared Vision, Challenge the Process, Enable Other to Act, and Encourage the Heart. Using a one-sample t-test to evaluate the hypothesis that there is no difference between the principals' perceptions of superintendents' leadership practices, and the Kouzes and Posner norms in each of the five leadership subscores of the LPI, findings revealed the perceived leadership practices on each was significantly higher than the Kouzes and Posner norms with  $t(127)$  and  $p < .001$ . Leadership effectiveness and behaviors are tied to contextual factors (Mello, 1999), rather than norms, and thus the differences between the sample of this study, and the Kouzes and Posner norms can be explained based on this understanding.

While the literature affirms stronger school climate in the presence of superintendents high in the practices of Enable Others to Act and Encourage the Heart, and Sims' 2005 study of 213 faculty/staff and 13 school areas yielded from statistical regression, an 86.4% in collaboration (an Enable Other to Act Commitment), 81.5% in Environment, and 80.5% in Instruction (factors associated with the Commitments for Model the Way and Inspire a Shared Vision) in terms of contribution to school climate variation, this study indicates faculty/staff, parents, and students assigned a significantly higher score on school climate grade or GPA to District 3, which surprisingly scored lowest on the two leadership factors of Enable Others to Act and Encourage the Heart leadership practices. The other two districts scored significantly higher on Enable Others to Act and Encourage the Heart, but lower on school climate than District 1. This is surprising and contrary to the literature, but might indicate stakeholders, including faculty/staff, parents, and students, value more authoritative, mechanistic, firm, and less "leadership with heart" where school climate is concerned. Given the high demands for increased accountability, demand for higher student achievements, the need for more effective schools, and increased national standards, and given the challenges facing public school districts in the 21st century, leadership that is more task-oriented and transactional might be a priority in the school districts, as opposed to leadership that is more affective and transformational.

### Implications and Recommendations

While superintendents practice exemplary leadership in the three public school districts, this study found significant differences among superintendents with regard to their perceived

leadership practices of Enable Others to Act, Encourage the Heart, Model the Way, Challenge the Process, and Inspire a Shared Vision as assessed by principals using the LPI. There were no differences among superintendents' perceived leadership practices by school levels, while there were significant differences between the perceived leadership practices of superintendents and the Kouzes-Posner norms for the five exemplary leadership practices of the Leadership Practices Inventory. Finally, there was a strong association between respondents' school climate grading and perceived leadership practices of superintendents contrary to claims of the educational literature that leaders with "heart" and collaborative practices produce environments with stronger more effective school climate.

Public school district leaders and specifically district school boards should provide superintendents feedback on their use of the five leadership practices and encourage exemplary superintendents to serve as coaches and mentors for new superintendents or less exemplary superintendents. The findings of this study can be used in the hiring, training, and development of superintendents to respond to the increasing demands for more effective school district leadership. The leadership practices identified as exemplary in this study could be used as part of the criteria for recruiting new superintendents and for improving overall leadership in schools. Furthermore, the insights into principals' expectations of what they perceive to be effective leadership practices at the district level will help superintendents to better understand what is required of them and how they can build stronger leader-follower relationships to positively affect school-level morale and improvements (McFarlane, 2010).

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# **The SOWT Model Revisited – A Multi-Disciplinary Approach**

**Nicole Grandmont-Gariboldi**

## Abstract

Using a multi-disciplinary perspective, this paper proposes a series of applications of the SOWT model as a systemic approach to strategic positioning and problem solving. The examples provided emphasize the main areas of leverage of the concerned entities and focus on a limited number of possible effective strategic actions, thus helping to avoid the fallacy of relying mainly on symptomatic signals for problem solving.

## Introduction

The SOWT model offers an alternative to the narrative form of the SWOT analysis (Strengths, Weaknesses, Opportunities, and Threats), which characterized early prescriptive models on strategy formation developed in the 1960s. Building on the concept of *metaiona* (i.e., shift of mind) introduced by Senge (1990), Grandmont-Gariboldi (2005) designed the SOWT framework, which is presented in Annex 1. It involves five wheels representing respectively the strengths and opportunities on the left side (SO), the weaknesses and threats (WT) on the right side, and in the middle, the strategic actions that can be used to maximize the SO and minimize the WT. The three pillars at the basis are essential for a successful strategy. The critical part at the center of the SO wheels represents the main area(s) of leverage. In normal circumstances, focusing on the strengths and opportunities should allow to minimize weaknesses and threats. This is why the small circle is adjacent to the SO circles. The likely shrinking effect on the threats and weaknesses is reflected in the decrease of the size of the WT circles. However, some weaknesses and threats may never be eliminated. Thus, they have to be included as an inherent part of the process as a whole. Also, the model allows shifting the small circle to the right in particular cases, such as crisis situations.

## Applications of the SOWT Model

### *Strategic Analysis and Development – The Case of Bombardier*

The first application of the SOWT model is presented in Annex 2, which displays the strategic posture of Bombardier Inc. We identify the Bombardier Manufacturing System (BMS) as the main area of leverage, and the virtual corporation and expert systems as some major tools for maximizing the SO side.

As noted by Grandmont-Gariboldi (2005), Bombardier Inc. is one of the largest manufacturing companies in Canada. It exercises its activities of conception, development, fabrication, and commercialization in the fields of transportation equipment, civil and military

aerospace, defense, and motorized consumer products. The company also offers services as well as support, maintenance, training, and operations management services. Annex 3 presents a historical outline of the company. Based on Galbraith's (2001) "center of gravity theory," Bombardier's success would result mainly from its ability to remain close to its center of gravity while diversifying and evolving in various segments. According to the theory, the firm's success in implementing and managing diversification will depend on the degree to which it operates at the same center of gravity in a new industry. Following are the basic assumptions underlying the theory: (1) firms learn different and important lessons at the initial stage (the center of gravity) of the vertical chain in which they began their operations; (2) lessons learned at this stage influence a firm's values, management systems, succession path, organization, and mindsets; and (3) different stages in the vertical chain represent different centers of gravity because they face different managerial problems and tasks.

Bombardier provides a good subject for the SOWT application. It is succeeding in diversifying in various businesses while remaining close to its center of gravity and without compromising its relentless metamorphosis. The essence of its center of gravity still lies in the firm's BMS, but the form has evolved. As an example, it recently managed to expand its manufacturing activities from regional aircraft to larger commercial airplanes and to compete with large manufacturers such as Boeing and Airbus.

#### *Information Technology and the Risks Associated with Financial Derivatives*

Another application, the CHES (Control, Hedging, Exposure, Speculation) framework, is represented in Annex 4. Developed by Grandmont-Gariboldi (2006), it is an adaptation of the SOWT model. Generally, the term "derivative products" refers to financial contracts such as forwards, futures, forward rate agreements, swaps, options, asset-backed, and hybrid. Their value depends on the value of one or more underlying assets. Derivatives are used to generate revenues and to hedge against certain risks. Financial hedging is the process of taking a position in an instrument that produces a price movement opposite to an existing or anticipated position.

Ongoing advances in communication and information-processing technologies have reduced the cost of implementing arbitrage, hedging, and other risk management strategies. However, while derivatives are used as risk management devices, they are themselves subject to multiple risks, which need to be managed concomitantly. Hopefully, lessons will have been learned from the past decade, which has witnessed huge losses incurred by large financial institutions and investors in highly risky hedge funds. Also, the new U.S. regulations should improve the transparency of derivatives activities and positions, which most often occur in widely unregulated over-the-counter markets, thus by-passing scrutiny.

A number of studies, including those of Darby (2000), Barton (2000), Thorbecke (1998), and Krawiec (1998), have addressed issues related to financial and information technology (IT) innovations and derivatives risk management. However, there is little research so far on strategic-based approaches for classroom teaching. The system considers financial derivatives as risk management tools (Hedging devices) for potential risk reduction (Control improvement) or as Speculation devices leading to possible increased Exposure; hence the chosen CHES title for the framework. The main areas of leverage in this system are Information Theory (ITh), Finance Theories (FTh), and Risk Management Principles (RMP). The meaning of hedging in this model extends beyond the possible positions provided by financial hedging instruments; it also includes

natural hedges. For instance, when the operations of a firm are executed in numerous currencies, it becomes necessary to make a distinction between a currency of determination and a currency of denomination. The former relates to the firm's operations and should dictate the allocation of resources among countries [natural hedge] for foreign exchange risk management over the long-term. The latter often is associated with transaction exposures, which can be managed with short-term financial devices. However, natural hedges are considered as more effective in the long term, compared to financial hedging devices.

Following are some major risks associated with financial derivatives. "Volatility is usually defined as the annualized standard deviation of the natural log of asset prices" (Bank for International Settlements, 1992, p. 69). A small movement in share prices, for instance, can trigger a much larger change in the value of a stock-index option. The market risk or the price sensitivity of derivatives is the risk of the decline in the value of a contract arising from adverse movements in the price, index, or rate of the instrument underlying the contract. Also, because of the low margins that are required to buy derivatives equities, market participants' exposure can change rapidly. Moreover, the interdependency of the different markets implied can cause the stretching of positions across several markets. The consequent aggregation or interconnection risk results from the interaction of positions in one instrument with other positions, both in derivative products and in the underlying asset markets. Another concern is the managerial risk or operating risk, which is the risk of unexpected losses resulting from inadequate internal controls, procedures, human error, system failure, or fraud. The counterparty credit risk is the risk of loss in the event the counterparty of a transaction defaults or otherwise fails to perform under the terms of the contract. This type of risk also is present when an institution either pays out funds or delivers assets before receiving assets or payments from its counterparty; this is referred to as the settlement risk. Because of the growing volume of over-the-counter products, investors need to constantly and accurately assess the creditworthiness of their counterparties in a market in which derivatives positions are becoming longer-term. The market liquidity risk is the risk a financial asset or an off-balance sheet instrument cannot be sold or replaced quickly at a price close its fundamental value. As long-term positions are more difficult to value and to hedge against, they particularly present a liquidity risk. Another source of concern is the valuation risk resulting from the misstatement of the profit (loss) of a transaction. The problem is that many derivatives are originally priced, and subsequently valued by mathematical models that must include an estimate of what the volatility of the underlying asset will be over the term of the contract. Furthermore, no reliable estimate of the derivatives market size exists, and many fund managers use over-the-counter strategies to circumvent legal investment guidelines. Another possible exposure can occur because the haziness of the legal aspect of derivatives: This is the legal risk. When it is not clear whether institutions have the right to enter a particular activity, contracts could be considered *ultra vires* and voided. In addition, because of the political risk, it is feared that, in the event of major regional or global recessions, there may be swings toward protectionism, which could disrupt market rules. Finally, the systemic risk is the risk that international and local regulators are most concerned about. It is considered as "the risk that a disruption, at a firm, in a market segment, to a settlement system, etc., causes widespread difficulties at other firms, in other market segments or in the financial system as a whole" (Congressional Research Service, 1993, p. 74). There is a general recognition by regulators that they may not be up to the challenge of supervising new products. Moreover, there is no consensus as to the level of systemic risk derivatives products can generate.

### *Information Technology and Derivatives Risk Management*

Controlling the risks associated with derivatives requires well defined systems and controls that cover transactions, risk-taking, documentation, and operations. This can be achieved through the combination of financial technology and information technology engineering. Financial engineering involves the knowledge and use of financial theories, models, and mathematical formulae for solving problems and devising new financial instruments. Factors that should be considered in designing, operating, and reviewing a system include the following: the system should capture all the essential risk elements and make it impossible for traders to maintain a risk position that is not captured by the limit framework; also, it should give easy access to immediate information on the potential magnitude and direction of any impact on the profit and loss account of the entire derivative portfolio at any point in time.

Derivatives involve increasingly varied and complex elements, and all the risks have to be managed concomitantly. IT helps create and support state-of-the-art statistical, pricing, valuation, and risk analysis systems. It also assists in measuring, managing, and reporting risks in a timely manner. Human resources also can be leveraged with investment in IT. Effective online links between front desk and back office through networked databases increases risk management efficiency. IT helps providing flexible, real-time, and knowledge-enriched solutions and online product support. It also can be used to facilitate front office proprietary pricing, valuation, and risk management; it also can present an edge in product innovation, and improve hedging performance and portfolio earnings. In the back office, IT can facilitate improvements in the cost, efficiency, and productivity of operational and support areas of a derivatives unit. IT can supply the requisite management information necessary to control operations at increasingly lower cost. Systems trends include the integration of front-and back-office functionality and the integration across various derivatives products. The consequent advantages include: cost-savings; improved control for reporting risk management, compliance, capital adequacy and limits; and the capacity to manage portfolios of derivatives products on an integrated basis.

In terms of system requirements, the software should be able to cover all financial assets, and handle multicurrency portfolios and all derivatives operations. The system also should help identify the parameters that influence future financial and operational cash flows, and it should interface with the accounting system. Double inputting of data is a source of error. Output computations should include the market value of each transaction and the sensitivity—or partial differentials—of the market value with respect to market parameters. The system also should include extensive documentation, mentioning explicitly the algorithms and/or analytical formulae used. Permanent assistance should be available at all time from software provider. Black box-type programs should be avoided. Connection to a financial real-time feed is an obvious advantage as it allows for fast repricing.

### *IT as an Area of Leverage for Applying Financial Principles in Risk Management*

Leveraging on IT can make the available financial theories and models better workable devices for risk management. For instance, a number of option-pricing models are offered by private software vendors. The most popular include scenario-based Monte-Carlo simulation and Black-Scholes. Object-oriented database management systems (OODBMS) also are being used in derivatives training. The primary types of Artificial Intelligence (AI) used by money managers

include: expert systems and genetic algorithms to optimize portfolio performance; qualitative reasoning techniques (simulation and synthesis) to design investment vehicles for risk management purposes. These techniques can be employed by a prototype expert system that aims at assisting traders solving risk management problems (Benaroch, 1995). However, the available devices can be useful only in the context of well thought-out control systems. General risk management activities should include the following steps: establish the intended purpose of the derivatives instruments; link the objectives at different organizational levels; and develop a risk management plan. Market risk management should include at least the following procedures: mark-to-market derivatives periodically; provide for market risk limit; consistent method of measuring market risk; periodic stress simulation that should consider historical events, future possibilities, large market swings, periods of prolonged inactivities, effects of price changes on the market-to-market, and changes of assumptions used. Also needed are the following: contingency plans for unfavorable activities; a market risk organization with clear independence of authority; and market risk calculated for both individual derivatives and the entire portfolio. Credit risk management includes the following activities: measuring the risk by calculating the current and future replacement cost of derivatives; considering if credit exposures on both derivatives and all other credit exposures to a counter-party are aggregated; providing for a credit risk limit and making sure it is adhered to; providing a credit risk function with clear independence and authority; using a master agreement with each counter-party and, if one is not available, using other attempts to reduce credit exposure with that counter-party; finally, considering using credit rating organizations. Operational risk management involves the following: personnel performing derivatives with appropriate training, skill levels, and degree of specialization; qualified support staff and supervisors; ongoing plan to secure adequate electronic data processing (EDP) support; systems that facilitate the measurement of various types of risk; the authority to commit the organization to derivative transactions clearly specified; the designated authority should be complied with; accurate periodic reports of risk exposures should be available, and management should make use of the reports; establishment of panic values that require immediate reporting; timely reporting when panic values are reached. Legal risk management activities include the following: periodic reviews made by trained legal counsel of the legal framework in the jurisdiction where the transactions occur; derivatives instruments should be periodically approved by legal counsel to create legally enforceable agreements; periodic assessment by counsel of the capacity of the parties to enter into derivatives transactions. Finally, systems risk management activities should consider if a large percentage of derivatives activity is concentrated with a small number of dealers or customers.

#### *IT as a Risk Reducer*

Online access to distributed databases and real-time visualization can help in risk control activities. Decreasing costs of systems, communications, client/server networks, and relational databases make it easier to buy or sell, and to adjust positions. Plan sponsors and end users at large currently are better equipped to deal directly than they have been in the past. Clients are better prepared to ask questions to their money managers, establish clearly their needs according to their risk-return preferences and constraints, evaluate their money managers, and take new responsibilities. Information on counterparties is more readily available, which can reduce transaction completion and settlement time, with potential lower transaction and counterparty

risk. Communications and databases offer possible improvement in availability of legal information worldwide, thus reducing the legal risk. Also, increased opportunities for specialists to exchange information worldwide and collaborate in developing global strategies can help in controlling the systemic risk. However, the limitations of financial derivatives as risk reducers need to be acknowledged. While many of them can be effective short-term risk management devices, they also can be used as risky speculative instruments and, moreover, compound the volatility of their underlying assets.

#### *IT as a Risk Inducer*

It is difficult for non-specialist participants to discriminate and capture only relevant information. The speed at which repositioning can take place possibly may result in rapid changes in ownership, and the real counterparty often may be unknown. In addition, smaller market participants may not afford the required sophisticated systems and, therefore, may not be prepared properly to compete in lucrative but volatile derivatives markets. Also, they may not know how to use the systems, analyze the results, or make inferences. In fact, it could be difficult to screen out silly relationships and to rule out nonsensical answers. Furthermore, even if we look at enough things in the past and completely randomly find something that worked, it does not mean it will work in the future.

#### *The Main Issue: People*

Risk management systems are highly specific to organizations. They reflect institutional strategies, organization risk assumptions and attitude towards risk. Recent literature supports the view that most of past losses were due to inadequate risk management systems, and poor operations control and supervision. Some institutions may be placing too much reliance on risk management technologies and not enough emphasis on supervision of trading activities. Risk management involves taking the responsibility in the context of new derivatives instruments and powerful analytical tools encompassing both IT and financial engineering. With this in mind, we provide the following framework relating to “The Real Issue: People” in Annex 5.

Finally, as hedging with derivatives products may not always be effective, the proposed CHES model also provides for the inclusion of natural hedges, thus extending its practical applications. The framework also can be adapted easily to particular situations and it allows interactive inputs from students in the traditional or virtual classroom. As such, it represents a workable tool for team learning.

#### *A Strategic Approach for Elder Financial Abuse Prevention*

The American Institute of Financial Gerontology (AIFG) defines financial gerontology as “multidisciplinary, building on relevant teachings from biology, psychology, sociology and demography to understand the lifelong wealth span issues and aspirations of aging individuals and their families” (AIFG, 2007). This application of the SOWT model, as shown in Annex 6, is extracted from the earlier work of Grandmont-Gariboldi (2010). Following is a short discussion of the basic elements:

*Trust:* At certain points in our life, we need to trust someone. Isolation is a major threat especially to an elderly person. *Family/Friends Support:* Think about your golden years as early as you can. We all need to be realistic and ready to face the inevitable ageing process and its financial consequences. Try to nurture good relationship with family or friends. Even a truly committed financial professional could be a trustworthy friend. *Financial literacy:* If you have no desire, patience, or talent to get educated on financial matters, make sure that the people who will manage your finances have the adequate credentials. If a family member or a friend is in charge of your finances, make sure that they have the minimum intellect to evaluate the qualifications of your financial manager. *Look for Help:* Do not try to do it all. It is possible that you are able to manage everything on your own at this point in time, but you do not know what the future holds. So you need to have a back-up plan. The opinion of others can make a difference. *Awareness:* Do not always think of others in terms of yourself. You may have a candid and optimistic view of the people you entrust your affairs, but you need to be aware that financial professionals may not all be worthy of your trust. Beware of potential conflict of interest or even dishonesty especially if the person or the firm is not well established. Moreover, even in well established financial institutions, there are possible internal conflicts of interest. *Readiness:* Although you or your representative may have an adequate level of financial literacy and a certain level of awareness, the willingness to face reality and react to unethical behavior becomes crucial. Also, you need to provide for the eventuality that your physical/psychological condition may not allow you to face abusive practices. This is why it is so important to plan early and make sure that your representative will have the strength of character to take the appropriate actions. *Be receptive:* Remember that principles and practices that were adequate in the past may not be optimal today. In addition to a basic financial literacy, you or your representative needs to have an opened mind to learning. *Trust yourself:* Most of all, trust your own capacity to take control of your financial affairs, to the extent this is possible. This does not mean you need to manage everything on your own. However, make sure your representative is acting according to your wishes and your directives. Do not let anyone intimidate you, especially if the person who administers your affairs is also taking care of other aspects of your life, such as the choice of an assisted-living residence.

This adapted SOWT framework allows for interactive inputs from students in the traditional or virtual classroom. As noted by Grandmont-Gariboldi (2010), it also provides a basis for team learning. In addition, the possible combination of this working tool with other models, such as the REAL model, offers opportunities for creative thinking in strategic positioning. The REAL model proposed by Hollander and others (2000) uses the resources, events, agents, and location as the main pillars of information system analysis and development. It can be very well be adapted for identifying the elements signaling potential predatory abusive financial advising practices and for developing strategies aimed at averting such practices.

#### *Public Policy Application*

The SOWT model also can be applied to the field of public policy. As shown in Annex 7, the framework highlights the need for a just balance between sustainable economic growth and

controlled inflation. In this case, the “Balance” wheel also can be shifted depending on the prevailing economic conditions. A shift to the right would imply a strategy that favors an increase in the money supply; this would be reflected in an outward shift of the wheel as a result of easing monetary policy. This is precisely what is currently happening as the Fed’s actions are focused on minimizing the cost of funds.

While acknowledging the enormous complexities of the numerous factors underlying sound monetary and fiscal decision-making, the model would be appropriate particularly for didactic purposes. It could be used as a systemic approach for case and scenario solving. However, as it is the case of most of the available financial theoretical models and formulae, the SOWT framework requires some estimation inputs. The assumptions include for instance, the ability to predict data about unemployment, domestic production, unused capacity, balance of payments, real estate and other sectoral markets, the direction of interest rates, and the stability of the U.S. dollar. In the current economic environment, at issue is the stagnant consumer spending, which accounts for about 70 percent of the gross domestic product in the United States. The financial and real estate crisis and the subsequent high unemployment prompted an increasing propensity to personal savings. Perhaps it could be the right moment to find a new balance between economic activities and environment preservation. While aiming at an optimal unemployment rate, this also could be the right time to revise the perception of an individual’s wealth and redefine the notion of national wealth and wellness. Some progress is being made in that sense. In the future, this could be another area for applying the SWOT model.

### Conclusion

This paper provided a number of possible practical applications of the SWOT model in the areas of strategic management, financial derivatives, financial gerontology, and public policy. It particularly discussed the elements of the framework in the context of strategic analysis and decision-making, financial derivatives risk management, elder financial abuse prevention, and public policy decision making. However, like many other models, particularly in finance, the framework requires the ability to generate estimation inputs. Nevertheless, it can represent a workable didactic tool. In the future, it could be applied to other disciplines. and its practical application could be enhanced by relating the components to quantitative measures.

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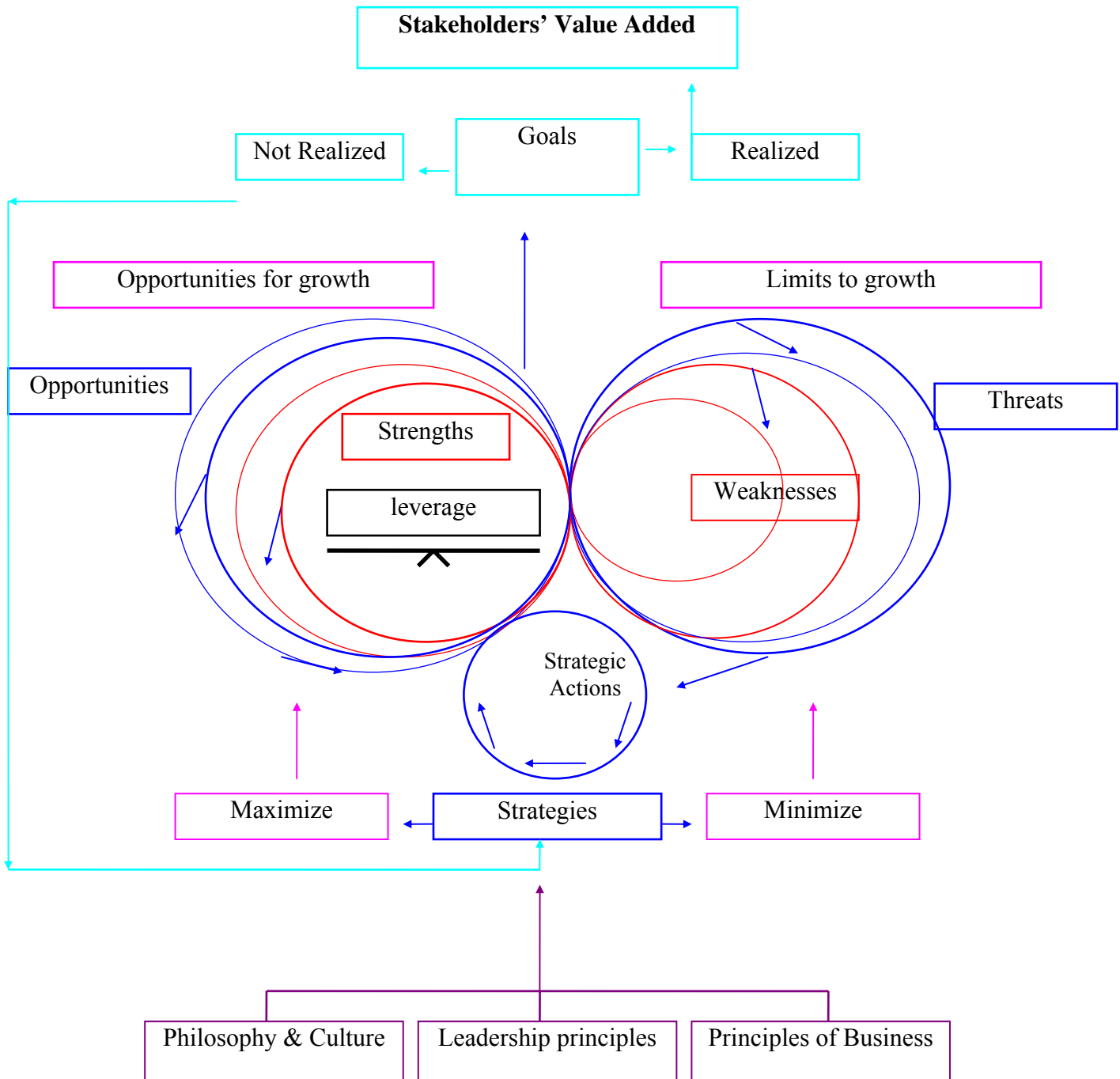


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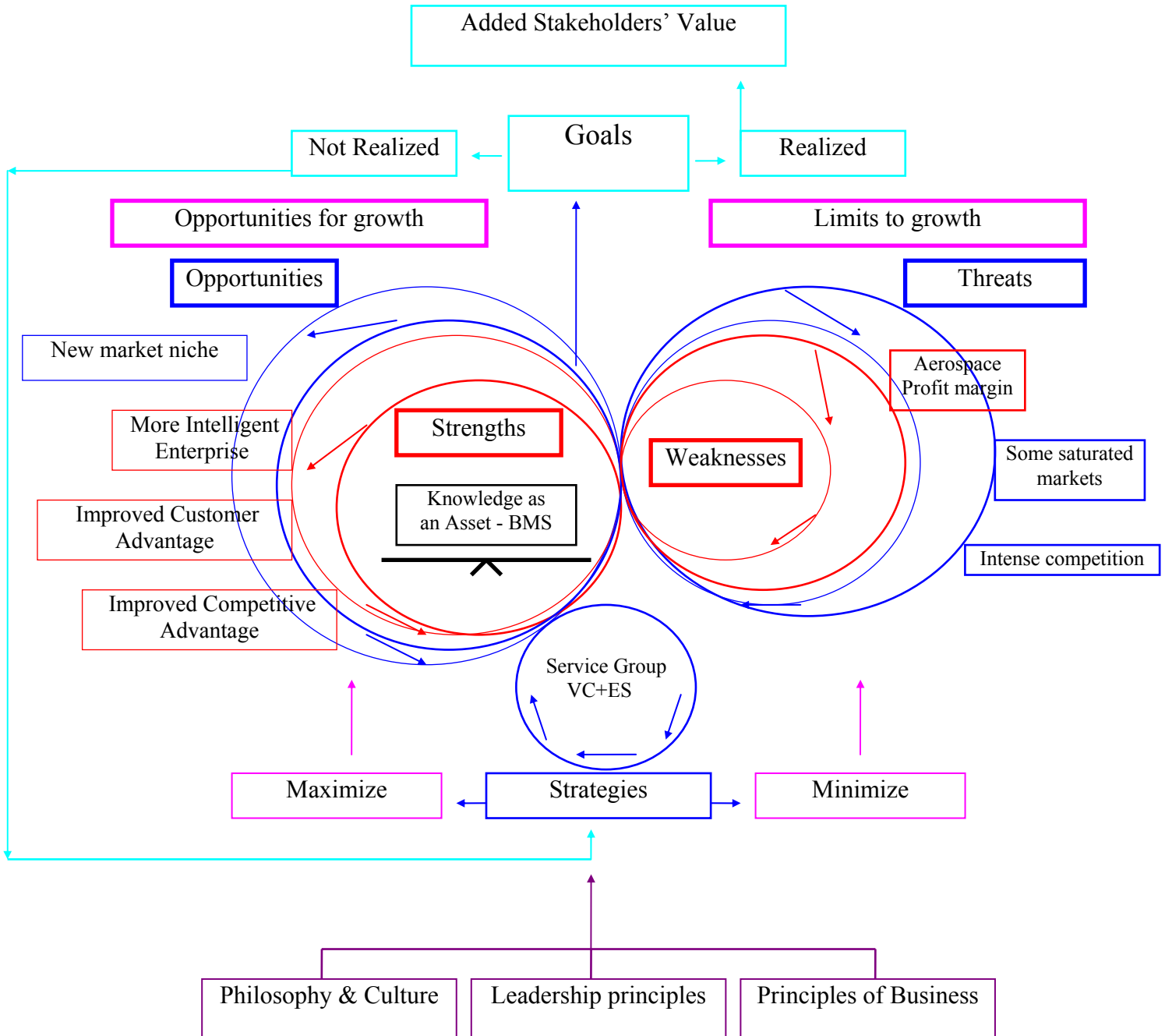
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Annex 1 – The SOWT Model



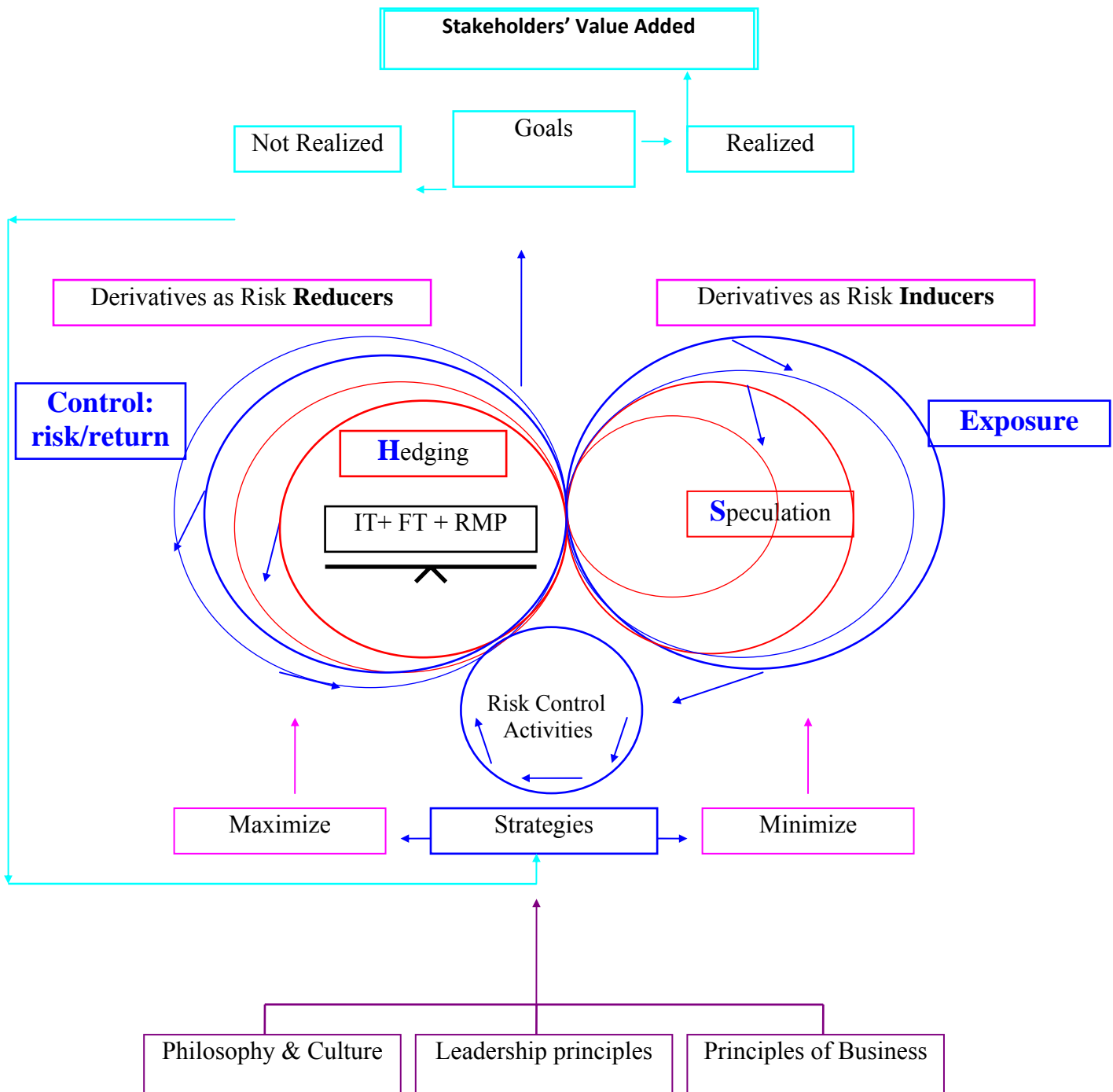
Annex 2 – SOWT  
The Case of Bombardier



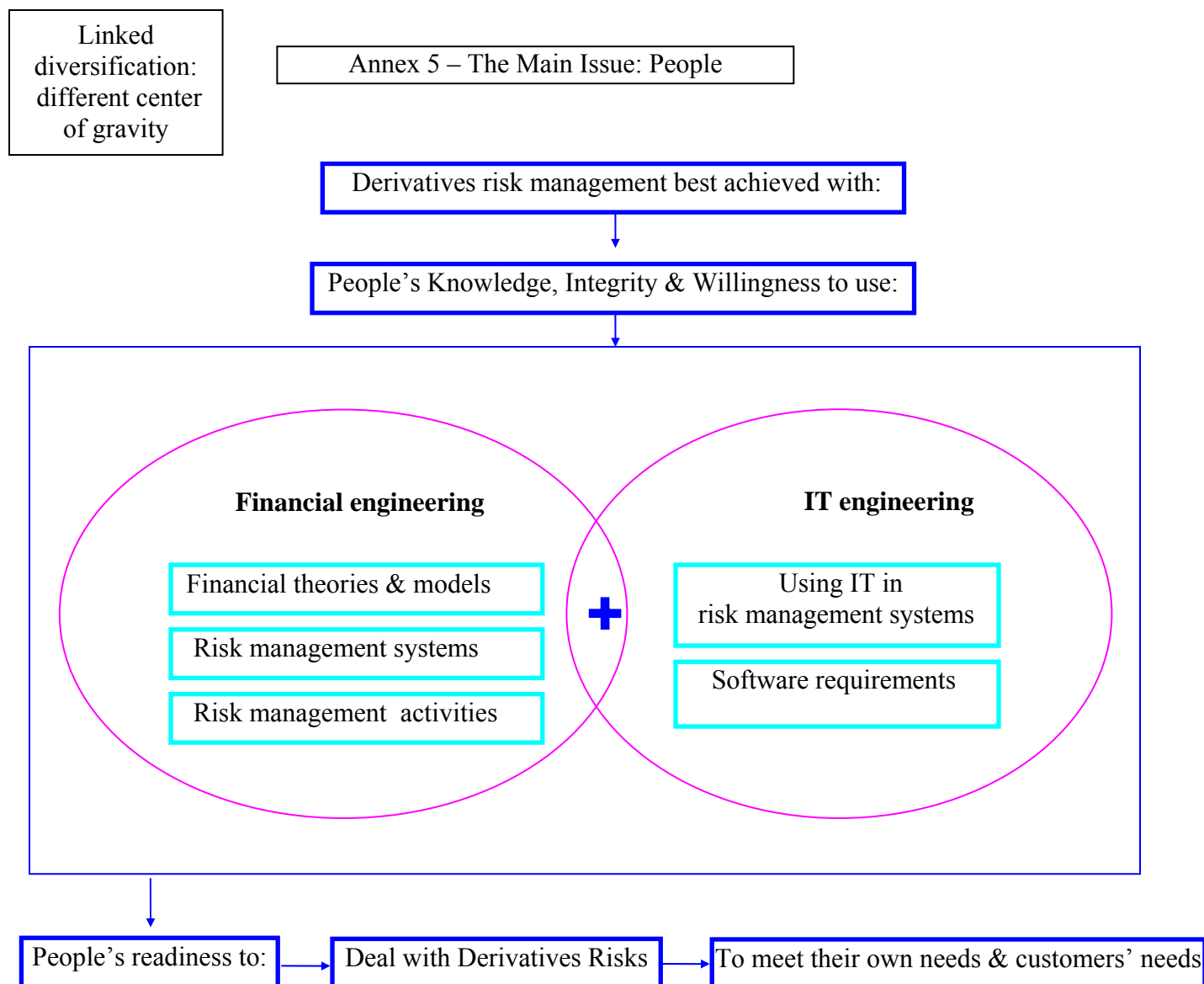
## Annex 3 – Bombardier Inc. – Historical Strategic Profile

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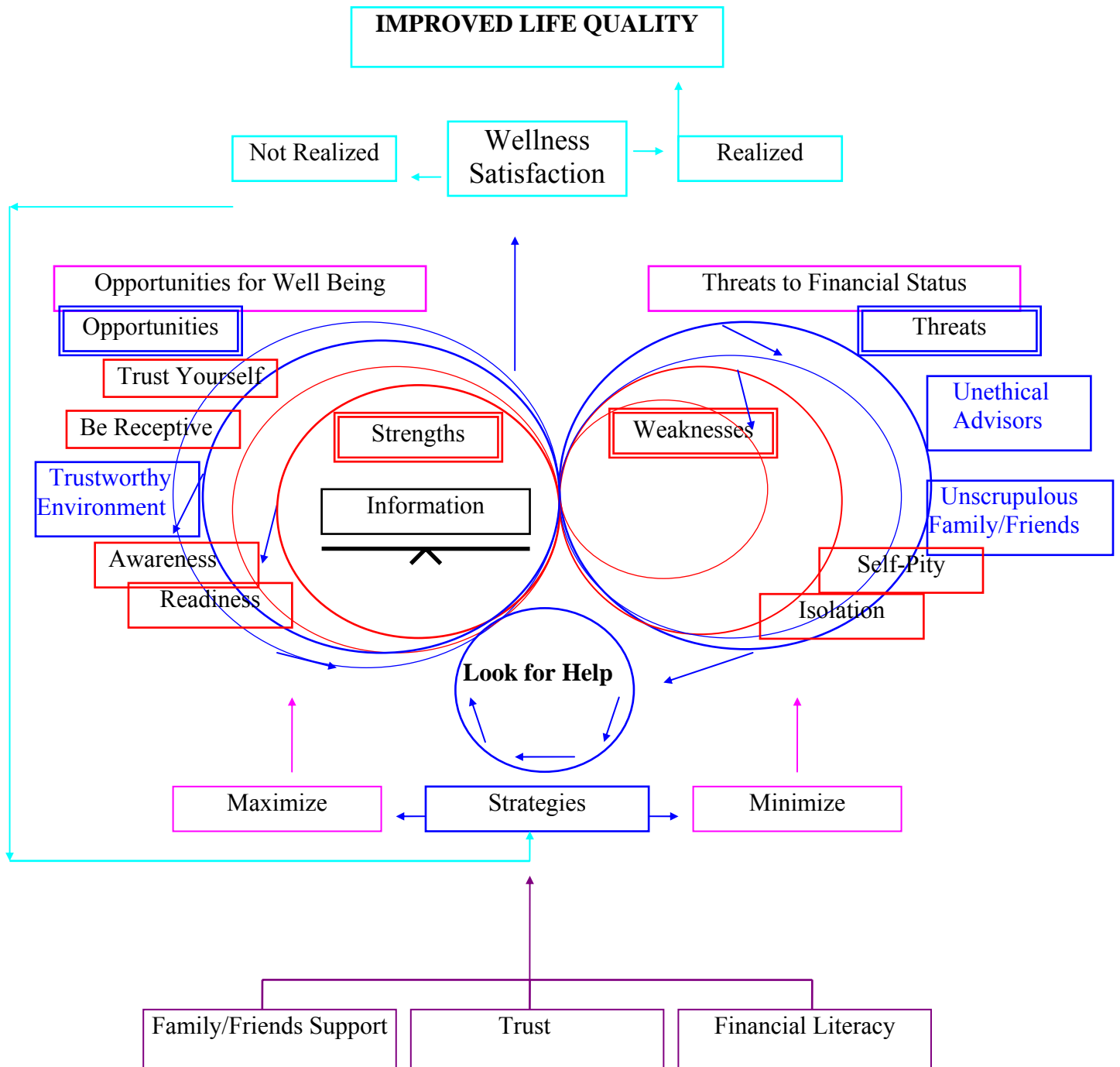
## Annex 4 - The CHES Model



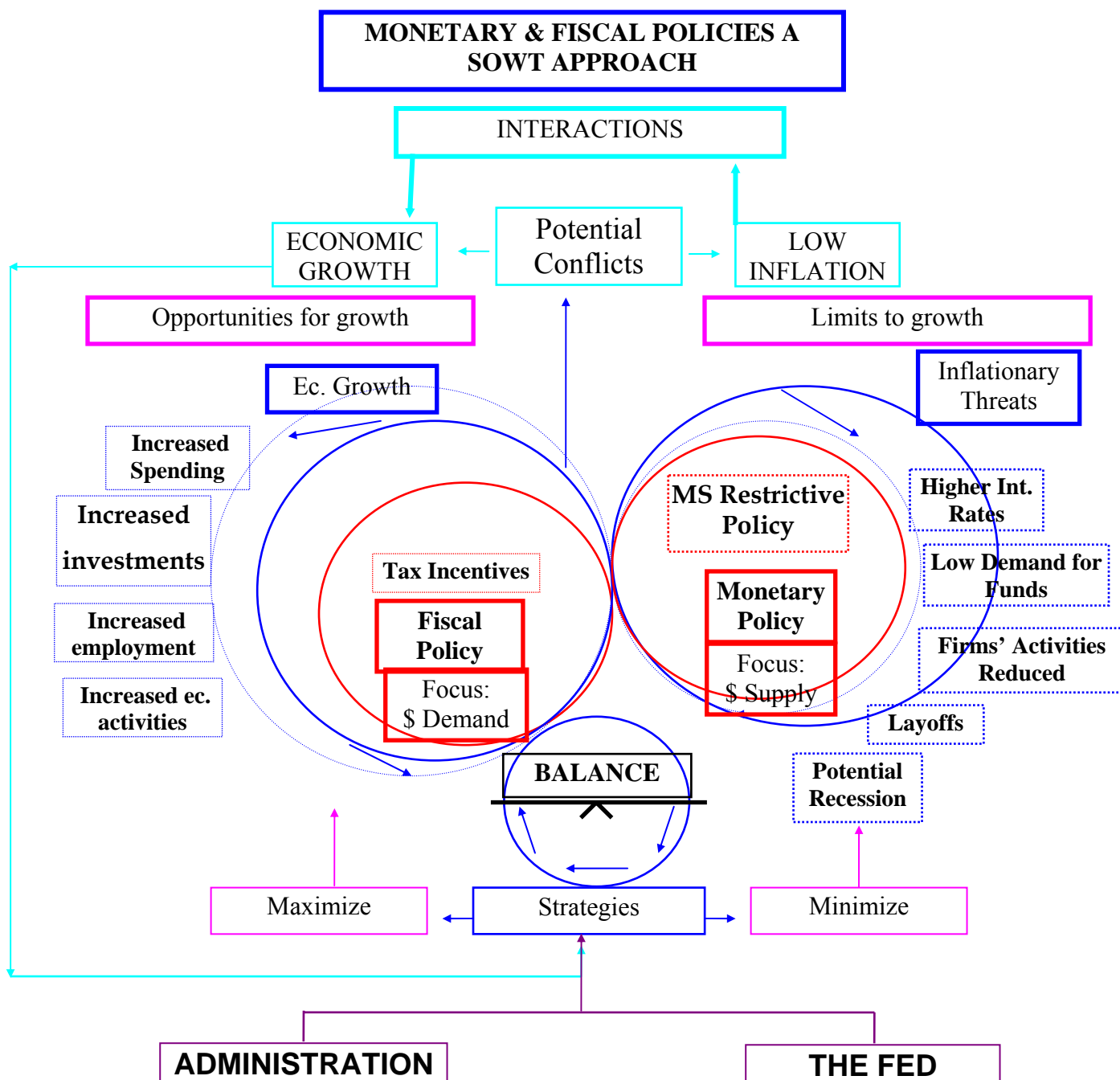
IT = Information Theory; FT = Finance Theories; RMP= Risk Management Principles



Annex 6 – Elder Abuse Prevention



Annex 7 – Public Policy





# **A Call to Action: An Overview on the Role of Christian Organizations in Combating Human Trafficking in the United States**

**Regina Bernadin**

## Overview

In this new millennium, the United States (U.S.) is still struggling to end slavery on its shores. Globalization has brought people to American soil with the promise of a better life; instead, many end up being forced to work against their will. Both formal and informal labor sectors are being affected with individuals enslaved in brothels, restaurants, and the rich soil of the agricultural fields. Every year, approximately 14,500 to 17,500 foreigners are sold into slavery in the United States (Clawson et al., 2009). Exponentially higher, however, is the number of minor American citizens who are sold into the sex trade. The U.S. Department of Health and Human Services estimates that around 200,000 American teens are sold into slavery each year (Clawson et al., 2009). This phenomenon is called trafficking in persons.

Trafficking in persons, also known as "human trafficking," is modern-day slavery. According to the United Nations, human trafficking is a \$36 billion global industry, and it affects practically every country in the world. Anywhere from 600,000 to 4 million persons worldwide are trafficked across or within national borders every year; 80 percent of them are female and approximately half are minors (United States Department of State, 2003).

### **Demographics and Statistics**

- Victims of a severe form of human trafficking can be from any country in the world; they can even be United States citizens.
- Approximately 800,000 to 900,000 persons are trafficked across international borders annually and an estimated 18,000 to 20,500 persons are trafficked annually into the United States. This does not include internal human trafficking (United States Department of State, 2003).
- Over 200,000 youth are victims of commercial sexual exploitation (including trafficking) within the United States (Estes, R., 2001).
- Every thirty minutes, one person is trafficked into the United States.
- In the world, there is a victim of trafficking every sixty seconds.
- Victims of a severe form of human trafficking have been enslaved in both rural and urban areas.
- Human trafficking is expected to surpass drug trafficking, to be the most profitable criminal activity by 2010.

Because of globalization, today's slave trade is more complex. Traditionally, slavery involved a person's physical freedom being taken away and then being forced to work against their will. Trafficking in persons finds individuals walking about freely, but not leaving their enslavement because of threats to their lives and that of their loved ones. In order to address the changing nature of modern day slavery, in October 2000, the U.S. Congress passed the Trafficking Victims Protection Act (TVPA). Unlike the 13<sup>th</sup> Amendment, which punished and abolished slavery, this new federal law took into consideration psychological restriction of movement—thus addressing the issues of force, fraud, and coercion. This law also establishes measures to prevent trafficking and raise awareness on this issue at an international level, to protect and assist its victims, and to prosecute traffickers with enhanced statutes (Clawson et al., 2009). The TVPA defines “severe form of trafficking in persons” as the following:

a. Sex trafficking in which a commercial sex act is induced by force, fraud, or coercion, or in which the person induced to perform such an act has not attained 18 years of age;

OR

b. The recruitment, harboring, transportation, provision, or obtaining of a person for labor or services, through the use of force, fraud or coercion for the purpose of subjection to involuntary servitude, peonage, debt bondage, or slavery (Victims of Trafficking and Violence Protection Act of 2000).

Trafficking victims can be found in a wide range of sectors including brothels, domestic service, construction sites, sweatshops, and hotels. Some individuals come to this country for economic opportunities, while others are sold by their family or lured by promises of a better life.

Potential victims are at even greater risk when they come from countries experiencing political and economic instability, civil unrest, or natural disasters. Generally, ethnic minorities or lower class groups are more vulnerable to trafficking, and certain social and cultural practices further leave women and children more susceptible to exploitation (International Rescue Committee).

The United States is also experiencing the phenomenon of Domestic Minor Sex Trafficking or the sex trafficking of U.S. minors. These children either run away from home or are enticed by the promise of love or the fulfillment of a dream (e.g., modeling). Then, they are forced to engage in prostitution, exotic dancing, or commercial pornography (National Center for Missing and Exploited Children, 2002).

### Case Studies

Trafficking in persons affects every community and every socio-economic, religious, and ethnic group in the United States. The past two administrations in Washington, D.C., have considered combating human trafficking as a priority on the President's agenda. Apart from the federal law to address this issue, 48 states are either investigating and prosecuting cases or assisting victims through a combination of state laws and other anti-trafficking initiatives. The

following section will provide a brief look at the different types of cases in California, Florida, and New York, which are considered the top three states in the country with trafficking activities.

### *California*

According to a recent report, "Hidden Slaves," from the Human Rights Center at the University of California, Berkeley, forced labored cases have surfaced in 13 California cities. In 1995, it was revealed that 72 Thai workers were enslaved in a suburban apartment complex in El Monte, California, sewing designer clothes 18 hours a day. The victims worked for less than \$2 an hour, and from their limited wages, they were expected to pay for rent, food, and medicine from "the company store" at inflated prices.

Other cases include one in Berkeley, where a businessman ran a sex and labor exploitation ring for 15 years. Another case occurred in Los Angeles, where more than 40 Thai workers were forced to work, against their will, as welders for almost no pay (*Human Trafficking in California*, 2007). These victims fell for false promises of employment opportunities and a better life. They found themselves enslaved in the United States by people from their own country and ethnic background.

### *Florida*

South Florida is a key port of entry into the United States for immigrants, undocumented workers, and trafficked persons. The exact number of those who are victims of trafficking is unknown; however, due to the Ramos, Cadena-Sosa, and other well-known prosecuted cases, it is known that hundreds of trafficked persons have been encountered in Florida. In South Florida, trafficked persons are forced to work in agriculture, sex and entertainment, domestic servitude, and tourism industries.

In the Ramos case, brothers forced up to 700 individuals into involuntary servitude in central Florida (United States Department of Justice, 2002). In *U.S. v. Cadena-Sosa*, the Cadena family trafficked at least 23 women and girls into various parts of Florida and forced them into prostitution (Feds raid brothels used by smugglers, 1998). To date, almost all of the prosecuted cases have come from rural areas of Florida. "Some Florida farms have earned the nickname, 'sweatshops in the sun'- as farmers and other business owners prefer illegal workers who don't complain and are willing to work for low wages. This is exacerbated by the fact that often migrants will accept the jobs that no one else will" (Kane, 2000).

Trafficking in persons continues to thrive in Florida. Below are examples of two high-profile cases in this area.

### **Woman smuggled to Florida, kept as personal slave**

Collier County sheriff's deputies answered a domestic abuse call at the house of Guatemala native Jose Tecum in Immokalee one night in November 1999. They found Maria Choz, 20, who said Tecum was keeping her as a slave. Choz and Tecum were from the same area in Guatemala. Tecum had tried to buy her from her poor family, Choz told police. He eventually raped her and threatened to kill her or her father if she didn't come to Florida with him. Tecum made her live in the same house with his wife and children and forced her to have sex when his wife was not there. He found her work in the fields but took almost all the money she made. In 2000, Tecum was found guilty of involuntary servitude, kidnapping and smuggling and in 2001 was sentenced to nine years (*Palm Beach Post*, 2003).

### **Contractor recruited workers from homeless shelters**

In April 1997, a team of St. Lucie County sheriff's deputies was approached by George Williams, who said he'd just escaped from a house where he had been held against his will and beaten by a labor contractor named Michael Allen Lee. Williams and other men had been recruited from homeless shelters in central and southern Florida and forced to work picking crops for Lee. Prosecutors later said Lee often paid his workers in alcohol and drugs, including crack cocaine. He charged up to \$40 a gallon for cheap wine. He beat them if they tried to leave. Williams and nine others filed a civil suit against Lee and his business associates, which was settled in January 1999 for an undisclosed amount. In December 2000, a federal grand jury indicted Lee on the criminal charge of servitude. He pleaded guilty, and in 2001 he and another defendant were sentenced to four years in prison (*Palm Beach Post*, 2003).

### *New York*

According to the U.S. Justice Department, New York's John F. Kennedy Airport is the hub of cross-border trafficking in the United States. Ken Franzblau of Equality Now says the victims in New York come from everywhere, including the United States.

There is virtually no part of the world now where we do not see trafficking victims from, certainly from Asia, from Latin America, particularly Mexico, Central America, the Dominican Republic, Brazil, from Eastern and Central Europe. There are brothels throughout New York with trafficked Chinese girls and women in them. And we should not overlook also that there are a lot of trafficking victims in New York from throughout the United States. That is a huge problem. I would guess there are probably more trafficked American girls in the United States than there are women and girls trafficked from outside the country (Law against human trafficking urged for New York State, 2007).

Below is a brief synopsis of two cases that took place in New York City in 2006.

### **Law Enforcement Agents involved in Human Trafficking Case**

A large brothel in Flushing, Queens, housing Korean women who spoke little or no English, was shut down after a 10-month investigation by the U.S. Attorney for the Eastern District of New York. The brothel had a “boarding house” where the women, who were illegal and smuggled into the United States, were kept. Immigrant documents, drugs, and \$800,000 were seized. The brothel, which generated \$4,000 a day, was successful to a large extent because the traffickers had bribed two veteran police officers, who received free sex, drinks, cash, and tips on other criminal activity. These officers were charged with public corruption and are awaiting prosecution. This large trafficking operation regularly advertised in the *World Journal*, a daily Mandarin newspaper (NOW New York, n.d.).

### **Human Trafficking Ring Thrives for Over a Decade**

Three defendants pled guilty to 27 charges connected with operating a human trafficking ring between Mexico and New York City (NYC) from 1991 to 2004. In one of the largest sex trafficking cases to date, the men admitted to luring young Mexican women to the United States. Once alone with the traffickers, the women were raped, imprisoned, and forced to work in brothels throughout NYC for seven days a week, servicing about 25 men a day. Two defendants were sentenced in federal court to 50 years in prison, and a third defendant was sentenced to 25 years in prison (NOW New York, n.d.).

### **Highlight of the Work of Christian Faith-based Organizations**

Trafficking is unpredictable. Victims can surface in any community or location without warning, numbering anywhere from one individual person to groups of a hundred victims. The needs of trafficked persons are often distinct, severe, and wide-ranging. When victims are rescued from such situations as those mentioned above, they require a system of care to address the specific needs caused by the trauma. Christian faith-based organizations have been nationally recognized for their work in protecting victims.

As awareness of modern-day slavery is heightened, churches are being called to move into action. “Actions to end this injustice will be most effective when done in collaboration with each other across faith communities and in relations with governmental and international organizations.” Mark P. Lagon, former Director for the U.S. Department of State Office to Monitor and Combat Trafficking in Person stated the following:

The church and people of faith as a whole have historically served as powerful agents of change. The faith-based community moves beyond advocacy and policy—critical components—and on to protective care, support and ultimately healing. We have seen faith communities fill a desperate need when it comes to victim identification. They are

often the first line of defense, encountering victims long before traditional law enforcement or even social service providers (Tiemeyer, 2008).

The role of faith-based organizations in combating the phenomenon of trafficking in persons is an important one. This section highlights the work of three Christian faith-based organizations in the United States. This is not an exhaustive list and serves only as an example of what is being done in this country to assist these victims.

#### *United States Conference of Catholic Bishops/Migration and Refugee Services*

On October 2005, Pope Benedict XVI issued a message entitled *Migration: A Sign of the Times*, in which he addressed the trafficking in human beings as "a scourge," and called for respect for all human beings, especially the most vulnerable including women and children (Benedict XVI's Message for World Day of Migrants and Refugees, 2005).

In the United States, the United States Conference of Catholic Bishops/Migration and Refugee Services (USCCB/MRS) administers two federally funded programs that provide direct services to victims of modern day slavery. The first one subcontracts with agencies throughout the United States to provide case management to foreign victims of human trafficking. The programs aim to provide survivors with a range of goods and services including clothing, food, bus passes, and monetary assistance for housing. It is also flexible enough to allot funding to adapt to each individual's necessities.

The goal of this program is also to provide the support necessary to the victim, while his or her case is being investigated by law enforcement and later prosecuted by the government. The USCCB subcontractor also will work with immigration attorneys and mental health counselors as part of the case management service. Today, USCCB has subcontractors nationwide ready to assist in helping trafficking survivors from the time of discovery through restoration.

The second federal grant enables USCCB/MRS to work in partnership with Catholic Charities to provide services to foreign trafficked youth. Child trafficking victims, whose families either are the perpetrators or are not physically in the country, can be placed in the network of Unaccompanied Refugee Minor programs, which are federally-funded, specialized foster care programs. This program mirrors traditional foster care; however, it includes a cultural component to aid the minor transition into life in the United States.

#### *Covenant House*

Covenant House, founded by a Franciscan order, began an initiative across Central America, Mexico, Canada, and the United States, which encompasses six key areas: "training, identification and rescue, direct service, outreach and education, networking, coordination and advocacy, and analyzing increased trafficking efforts" (The Covenant House Human Trafficking Initiative, n.d.). The goal of Covenant House is to become a one-stop center where victims can receive support with basic needs of every kind, including housing, food, and medical and mental health services.

Covenant House also has become instrumental in working with American youth, who have been trafficked within U.S. borders. Until 2005, the focus of anti-trafficking programs was

to address the needs of foreign victims of trafficking. The reasoning was that U.S. citizens, because of their status, could access mainstream programs as victims of crime. Reports and other published studies showed, however, that U.S. citizen-trafficked individuals also needed their own system of care. In 2009, the government funded the first three programs to address these needs. Covenant House, however, was one of the first to diligently work with runaway youth, and those engaged in commercial sex, before these adolescents were appropriately identified by frontline responders as trafficking victims.

#### *Lutheran Immigration and Refugee Service*

Founded in 2002, Lutheran Immigration and Refugee Service (LIRS) was formed by the Evangelical Lutheran Church in America to work primarily with immigrant populations. LIRS, in partnership with USCCB and the U.S. Department of Health and Human Services, Office of Refugee Resettlement (ORR), places unaccompanied child victims in safe foster care and independent living homes. These homes provide the children with a range of specialized social and mental health services.

LIRS, which also serves refugee populations, can provide those same services to “certified” victims of human trafficking. Certified victims are those who the federal government recognizes formally as victims. The system of certification allows undocumented, foreign victims to access public benefits and gives them the same “status” as a refugee. Trafficking victims can access refugee services through any refugee resettlement agency, including LIRS. These services include employment assistance and job placement, among others, and are an extra resource for victims of this crime.

#### Conclusion

When the TVPA passed in 2000, the document mentioned ‘3 Ps’ as part of the formula to combat human trafficking. These were **p**revention, **p**rotection, and **p**rosecution. In 2010, United States Secretary of State Hillary Clinton added a fourth ‘P’: **p**artnership.

Traditionally, faith-based organizations relied on their informal network to inform their members of such causes as human trafficking. Today, these groups have formally joined the ranks of first-line responders to survivors of this scourge. With the faith-based organizations providing social services and encouraging those in their congregations to come forward and denounce the issue of trafficking, victims of trafficking can be saved. By working together collaboratively with other organizations, government agencies, and the private sector, more can be done to stop the supply and demand for forced labor. Then, victims can be taken from “rescue” to “restore,” and one more person can be saved from slavery.

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## **Student Corner**

### **Personal Ethics: A Reflection**

**Niesha Jones**

Society's core principle is an illusion of ethics. However, as characters on the "world stage," it is obvious our decisions in relation to ethical principles are guided somewhat by the norms and values we have gathered and picked up along the way. More specifically, these values are clear derivatives of guidelines parents and peers have forced upon us, though indirect and unconsciously. As a result, we often switch between characters—expressing the holistic persona and the "model." The "model" is an exemplification of our character that is totally conforming to the defined and undefined rules that govern our interaction with others in formal and informal settings. It is funny how, in both settings, we try to accept that there are objective realities for the sake of convenience. Thus, convenience necessary or perhaps functional as social interaction is almost impossible to do without (Weber, 1978), unless we prefer to share the same space as "Anna"—a girl born out of wedlock, living in the attic of a house for several years before dying due to lack of interaction and communication (Haralambos & Holborn, 2004). It is fair to consider ourselves sharing the same space as the children who walked on all fours after being socialized and raised by wolves, research better known as the Feral Studies in India (Haralambos & Holborn, 2004). It is difficult to imagine our decisions totally independent of the many forces in our environment and culture.

Despite each "stage" requiring different characters to play the parts, there are certain common grounds met almost all the time for us to co-exist and function "normally" as collective beings. Once again, Durkheim's chain of collective conscience has succeeded in keeping us "grounded" (Durkheim, 1984). Needless to say, our "frame" is embodied with a clear picture of decisions governed by society that we sometimes alter, given the situation. Yet, with all the alterations, we still continue to live with mental addiction as we are unable to harmonize both the agent and the structures (Weber, 1978). Simply put, our decision to consider others' feelings when making a statement is not due to pure concern and compassion but rather to decisions that already have been made unconsciously to conform to society's mainstream culture and to accept that everything else is unethical. Society expects our decisions to mirror that of a tailor who takes your measurement once and expects to fit you in a suit bearing the same size every time. For this very reason, some of us try to divorce ourselves from the principles, but again, we are reminded we are part of something bigger than ourselves: decisions.

The principles that guide our life are a mixture of our own beliefs and those of others. Perhaps the most effective principles are subtleties of our experiences. Life is so wonderful that it gives you the opportunity to live and learn—an indispensable attribute that can never be replaced. As such, experiences teach us how to deal with the future and how to evaluate "right" from "wrong." However, we should note that teaching is not always synonymous with learning. Nevertheless, the ability to evaluate has led some of us to accumulate a set of principles that

guide our everyday life. Based on this, probably our most valuable belief is that “The floor can also be a ceiling if you allow it to be.” This principle alludes to the ethical standards that often require us to comfort others at the expense of dignity and pride. To reiterate, there are no real facts, only interpretations. Therefore, even though a majority of decisions and beliefs are molded by society’s imprints, there are still a few that have been untouched that keep us going and allow me us to be at peace with our own ethical guidelines.

Additionally, it is time to close that account filled with “reality checks,” as it is too difficult to abide by all the rules when the rules themselves change with time and the environment. The fluctuations in life and ethical principles resemble the point when parents slap their children because they are rude but in the same breath slap them because they are crying—and then expect them to stop while they continue to inflict pain. How can we keep up? The only and best solution to the miseries of life, its rules, and principles are simple: “Follow the rules when you must, and act against them when you can.” The utilitarian approach many of us adopt is as a result of multiple experiences that have led to the realization the enforcers of the so-called ethical principles in life are also the enforcers of non-conformity when ethics goes against their achievements (Boatright, 2009). Hence, what better pattern could we follow?

Some of us may admit that, at work, or in any formal setting, we not only are the best utilitarian “act” by following guidelines to keep our jobs but also can be very observant at the reaction we receive when we come in contact with others. Our main principle in a work setting is to conform but only to an extent. If conformity means understating the financial loss of a company in order to keep a job, some of us may not, as we have collected a few values over the years that force us to weigh the opportunity costs—the time spent in prison versus the steady salary forgone. Hence, society’s principle of conforming is useful, interchangeable for our personal values and those of society. By now, your doubts should have been cleared that some of us admit acceptance but not submission, unless we are reading two different scripts. Our work and educational environments both govern and pre-dispose us to the myriad challenges that wrap around ethics, thereby leaving us with no option but to utilize a few of our own standards created by society—the everlasting demon that plagues human existence.

In addition, our decision to be punctual mirrors the strictures and structure in society. This is an issue many people in other places in the world may view as unimportant. In contrast, our premise for respect goes right across the board as far as interaction is concerned but may differ as the hierarchy gets higher. Simply put, cultural values dictate there is a vertical hierarchy in society, and it should be treated in the manner in which it appears, leaving the highest respect for the member holding the highest position. Though these are values embedded in us, there is greater joy to be had should we pass successfully the stage of submission, in which we are forced to feel sorry if we do not accept all that has been presented for us to digest.

Nevertheless, we should be cognizant of the fact that conventional rules serve two purposes: to protect us from the painful job of thinking outside the box and to satisfy the superficial values of society in order for us to co-exist in a peaceful manner. However, due to educational exposure, it is easy for us to be swayed to consider this period as the postmodern era. As a result, a few years from now, there are strong possibilities these current views regarding life and the role we play on stage may change.

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## **Book Reviews**

### **Book Details**

Batstone, D. (2007). *Not for sale: The return of the global slave trade – and how we can fight it*. New York: Harper Collins Publishers, 301 pages, \$14.99, paperback, ISBN: 9780061206719.

### **Reviewer**

Katariina Rosenblatt Juliao, LL.M., Ph.D. student

### **Synopsis**

The book offers an insight into the global issue of human trafficking in a way never before written. Dr. David Batstone goes deep into the inner existence of those trapped in captivity. He brings to light the evils experienced today by those who are bought and sold as a commodity of the unjust. His insight gives light to the realities experienced in the lives of men, women, and children entrapped by the slave trade. His profound insight in the world of slavery through this book will open the eyes of the blind who, for too long, have been asleep or have turned a blind eye to the depravity experienced by those who have had no one to look out for them. His accounts include the despair of those held captive in the varying forms of slavery in today's world. Such is the case of those caught in the sex trade of the red light districts in Cambodia and Thailand, and extensive networks of deceit found throughout Eastern Europe and all the way to the U.S.A.

His account of the brothel and prostitution experiences shows how vulnerable populations of girls are tricked into being sold and what is their result: beatings, drugs, and rapes—a life they never imagined for themselves. He describes the generational curse of the bonded labor trade for those who become entrenched in brick kilns in South Asia. The horrific killings and torture experienced by child soldiers in Uganda become an eye opening voyage for readers as the children see firsthand how innocence is lost through watching their own families burned and killed before their eyes, and then are forced to perform the same with the numbing effect of drugs, fear, and intimidation. There are glimmers of hope in each account as the author brings out the hopeful, but few, found in places such as Peru, and the details of the extensive work required to enable those rescued to live and just survive. In the end, the truth becomes evident that without demand there would be no need for supply. The networks and syndicates needed in creating the monstrous enterprise of trafficking in humans stems from the very essence that fuels it: greed.

### **Evaluation**

This book is a human rights, antislavery activist, and social service provider's dream. In this book, Dr. Batstone never misses a beat, depicting accurate accounts and details of how all of the pieces fit together; he answers many questions. His insight, offered in this book, brings to light the very issues and questions that plague the mind of the rational person. How could this

happen in our day and age? How could people get away with this? How can we end slavery in our lifetime? Through the reading of this book, it will become evident how there are intricate systems in place that allow this trade to exist. A call is set out in this book for the everyday person to pick up their mat and walk, and begin to make a difference in this world. He engages readers to end their day of complacency, and to engage in the fight of bravery and become an activist for change in the lives of those who cannot fight for themselves. Then, he equips those who will heed the call by providing the necessary resources and instruction on how to become an everyday abolitionist! I applaud Dr. David Batstone for his work in ending slavery in our lifetime, and I am confident that through this book, many, such as myself, will be inspired to do *great* things!

### **In the Author's Own Words**

"The book of Ecclesiastes is one of the extraordinary pieces of ancient wisdom literature. The author beautifully expressed the desperation of the powerless: 'I saw all the oppressions that are practiced under the sun. Look, the tears of the oppressed—with no one to comfort them! On the side of their oppressors there was power'" (Eccles. 4:1). "In our world today, 27 million individuals live as slaves. Frankly, power is on the side of the oppressors at the moment, but a wave of abolitionists is on the rise. They will wipe away the tears of the oppressed and deliver justice to the oppressors" (p. 283). "I am not for sale. You are not for sale. No one should be for sale" (p. 301).

### **Reviewer's Details**

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*Katariina Juliao's LL.M is in Intercultural Human Rights from the St. Thomas University School of Law. She is an adjunct professor at Trinity International University in the area of Race and Ethnic Relations and Intercultural Communications. She is pursuing her Ph.D. in Conflict Analysis and Resolution from Nova Southeastern University and has participated actively in setting the captives free here in the U.S.A. through various outreach activities and speaking engagements. In addition, Ms. Juliao has a personal story relating to the contents of this book, here in the U.S.A.*

\* \* \*



## Book Details

Senor, D., & Singer, S. (2009). *Start-up nation: The story of Israel's economic miracle*. New York: Twelve, 304 pages, \$26.99, hardcover, ISBN 9780446541466.

## Reviewer

Hagai Gringarten, A.B.D.

## Synopsis

Senor and Singer's *Start-Up Nation: The Story of Israel's Economic Miracle* (2009) seeks to explain how a country of 7.1 million people, surrounded by enemies, in a constant state of war, and with no natural resources became the world's most innovative country and an "economic miracle." Representing the "greatest concentration of innovation and entrepreneurship in the world today" (p. x) and boasting the highest density of start-ups in the world, Israel, a country smaller than New Jersey, has more companies on NASDAQ than all of Europe, Asia, and China combined.

According to Dan Senor, a senior fellow for Middle East studies at the Council on Foreign Relations, and Saul Singer, author, columnist, and former editorial page editor at the *Jerusalem Post*, if we want to have a better understanding of "Why Israel and not elsewhere?" (p. 16), we should look at such interacting factors as the Israeli military, immigration, culture, diversity, size, and adversity.

Since its founding in 1948, Israel has been besieged by adversity, isolation, and lack of resources. This forced Israelis to be resourceful and innovative. The small size of the country forced it to look to global markets for its products and services.

The authors also note Israelis share a cultural trait called *chutzpah* (pronounced Choot-spah), Yiddish word for "brazen nerve...incredible guts, presumption plus arrogance" (p. 30). You can experience it everywhere in Israel: the way university students challenge their professors, employees their bosses, sergeants their generals, and it is "the normal mode of being" (p. 31). From an early age, Israelis are educated "to challenge the obvious, ask questions, debate everything, innovate" (p. 40).

Absorbing immigration is another interacting factor and an incredible success story unique to Israel in terms of scope and realization. Due to favorable immigration policies, Israel multiplied its population 9-fold in 60 years, while absorbing immigrants from over 70 countries. Since immigrants "are not averse to starting over, they are, by definition, risk takers. A nation of immigrants is a nation of entrepreneurs" (p. 121). Israel might be the only country that seeks to increase immigration, and it definitely breathed life into the economy. Today, 9 out of 10 Jewish Israelis are foreign born or descendants of immigrants.

A liberal immigration policy helped bring people with diverse background and knowhow, and Israel has the highest number of doctors per capita in the world. For example, we are introduced to Shai Agassi, an Iraqi Jew who sold his start-up to German giant SAP for 400 million dollars, went on to become SAP's youngest and only non-German board member, and is now CEO of *Better Place*, an electric vehicle start-up and the fifth largest start-up in history; the Israeli company Koolanoo, now the third largest social network in China, founded by a child of

an Iranian immigrants; or Fraud Sciences, founded by Shvat Shaked and sold to Pay Pal, the world's largest internet payment system, for 169 million dollars when Pay Pal realized this tiny company of 50 was years ahead of its R&D department of 2,000 engineers and Ph.D.'s.

One of the most pivotal points of the book is what Senor and Singer call "Israel's *Sputnik* moment" (p. 178), when France, a major Israeli supplier of weaponry at the time, decided to put an embargo on all arms sales to Israel in 1967. Israel's drive for independence, coupled with constant adversity, helped develop a first rate army and arms industry. At the age of 18, almost any non-Arab Israeli citizens must serve in the Israeli Defense Forces (IDF), and by the time they come out two or three years later, they have battlefield experience, hands-on experience in teamwork and next generation technologies; in addition, they learn to lead people and to improvise. The "IDF improvisational and anti-hierarchical follows Israelis into their start-ups and has shaped Israel's economy" (p. 177). Placing tremendous responsibilities on young individuals helps them mature and become mission-oriented and *rosh gadol*, an Israeli term for "the buck stops here" kind of attitude. By age 25, they have both a valuable military and university experience, which cannot be duplicated easily.

By the end of the book, Senor and Singer argue the "start-up nation" is the result of patriotism, drive, constant adversity, and unique Israeli elements such as military service that enhance the skills and experience of Israel's future entrepreneurs. To understand the gist of the Israeli mentality, Senor and Singer quote Shimon Peres, the Israeli president: "In the army, it's not enough to be up to date; you have to be up to tomorrow" (p. 226).

## **Evaluation**

Dan Senor and Saul Singer brilliantly illustrate how a country besieged by neighboring enemies, regional economic boycott, constant war, and terrorism, and with no natural resources, was able to become, in its 62 years of existence, the world's most innovative country and to boast the highest density of start-ups in the world.

Senor and Singer have a canny talent of explaining the Israeli phenomenon of economic miracle through intellectual vivid storytelling, eye-opening revelations, insightful analysis, and anecdotes.

In today's challenging economic times, the sense of loss of competitiveness, and the lack of innovation at U.S. companies, understanding the story of Israel's economic miracle could not be more relevant. *Start-Up Nation: The Story of Israel's Economic Miracle* provides an inspiring story of how to create an entrepreneurial state of mind that will lead to "economic miracle."

Although it seems the book was written from an Israeli perspective, I found *Start-Up Nation: The Story of Israel's Economic Miracle* to be timely, thought provoking, compelling, and a very interesting read.

To realize how such a small country became an important part of the global economy, we can look at a quote by an unnamed executive at eBay and representing sentiments of other executives of multinationals quoted throughout the book: "The best kept secret is that we all live and die by the work of our Israeli teams. It's much more than outsourcing call centers to India...what we do in Israel is unlike what we do anywhere else in the world" (p. 17).

### **In the Author's Own Words**

“Key economic metrics demonstrate that Israel represents the greatest concentration of innovation and entrepreneurship in the world today” (p. x). “In the military, they learn that you must complete your mission, but that the only way is as a team...there is no leadership without personal example and without inspiring your team to charge together...you have minimal guidance from the top and are expected to improvise, even if this means breaking some rules. If you're a junior officer, you call your higher-ups by their first names, and if you see them doing something wrong, you say so” (p. 231).

### **Reviewer's Details**

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### Submission Requirements

When authors submit their manuscripts to the *Journal of Multidisciplinary Research* (JMR) for publication consideration, they agree to abide by JMR publication requirements. Specifically, an author must:

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Submitted articles must support the core values of St. Thomas University (<http://www.stu.edu>).

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