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Abstract

Purpose – The purpose of this study is to fill the gap by investigating the relationship between age and other demographics on decision-making and leadership styles of executives in the non-profit sector.

Design/methodology/approach – This study is a quantitative research using correlation analysis and analysis of variance. The quantitative approach establishes facts, makes predictions and tests stated hypothesis and used the Pearson correlation coefficient, the ANOVA and the two-way analysis of variance. This study used surveys to collect data.

Findings – *H1* states that there will be no significant difference in the decision-making models used among non-profit organizational leaders (rational, intuitive, dependent, spontaneous and avoidant) based on demographic variables: gender and age. *H2* states that there will be no significant difference in the leadership style used among non-profit organizational executives (selling, telling, delegating and participating) and different dimensions of demographic variables: gender and age.

Research limitations/implications – This study explored the relationship between the demographics, age and gender and the decision-making models (rational, intuitive, dependent, spontaneous and avoidant) and leadership styles (selling, telling, delegating and participating) of executives in non-profit organizations. The age of the executives also showed to be important factors that influenced executive's leadership styles and decision-making models as well.

Practical implications – Rational decision-making as reflected to in this study has been used by older, possibly more experienced non-profit executives. This model is favorable towards making decisions on complicated issues. The final choice rational decision-makers select will maximize the outcome; it is assumed that the decision-maker will choose the alternative that rates the highest and get the maximum benefits (Robbins and Decenzo, 2003, pp. 141-142). The researcher suggests that non-profit executives, especially the younger executives, should attend management and leadership conferences that focus on rational decision-making models as concerns business strategies and making the best choices based on possible alternatives.

Social implications – Rational decision-making as reflected to in this study has been used by older, possibly more experienced non-profit executives. This model is favorable towards making decisions on complicated issues. The final choice rational decision-makers select will maximize the outcome; it is assumed that the decision-maker will choose the alternative that rates the highest and get the maximum benefits (Robbins and Decenzo, 2003, pp. 141-142). The researcher suggests that non-profit executives, especially the younger executives, should attend management and leadership conferences that focus on rational decision-making models as concerns business strategies and making the best choices based on possible alternatives.

Originality/value – This is an original piece of research that contributes to the literature on leadership style.

Keywords Gender, Age, Leadership styles, Decision-making models

Paper type Case study

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1. Introduction

Recent occurrences in the USA and in the world in general have resulted in enhanced humanitarian needs. Because government services available to provide humanitarian services are limited, more and more non-profit organizations are opening for related services (Bryce, 1992). In turn, these non-profit organizations exist in an increasingly economic turbulent situation (Bryce, 1992). Decision-making and leadership style have been identified as two of the ways that managers and leaders effectively manage change in a business environment (Erven, 2001). Leadership has been identified as one of the ways that managers and leaders effectively manage change in a business environment (Erven, 2001). O'Connor (1997, p. 4) defines leadership as "the ability to present a vision so that others want to achieve it; it requires skill in building relationships with other people and organizing resources effectively". Stogdill (1974), however, indicated decades of effort dedicated to studying leadership failed to produce a universally accepted definition of the concept. Burns (1978, p. 2) later echoes this thought: "Leadership as a concept has dissolved into small and discrete meanings, with more than 130 different definitions". While leadership is seemingly elusive in definition, it has been stated that "whenever it exists, morale flourishes, people pull together toward common goals, spirits soar, order is maintained, not as end in itself, but as a means to move forward together" (Johns and Moser, 1989, p. 63).

The leadership ability is, therefore, a relevant and pertinent attribute that must be present in a leader and in all organizations. The job of a manager is, above all, to make decisions (Brousseau *et al.*, 2006). Towards the end of the first decade of the twenty-first century, the world was affected by a strong global economic crises resulting from some irrational decisions that were taken by executive leaders in the public and private financial and administrative sectors. Burns (1978) also went ahead to state that leadership behavior can be categorized as either transformational or transactional. Bass (1997) opined that in transformational leadership, leaders emphasize higher motive development and arouse their followers' motivation and positive emotions by creating and representing an inspiring vision of the future. Rohmann and Rowold (2009) present a contrast of transactional leadership as relying on a set of clearly defined exchanges between leader and follower. According to Avolio and Bass (2002), transactional leaders are those who lead through social exchange. Burns (1978) further stipulated that politicians also lead by "exchanging one thing for another: jobs for votes, or subsidies for campaign contributions". Avolio and Bass (2002) reported that transactional business leaders offer financial rewards for productivity or deny rewards for lack of productivity, while transformational leaders are seen as leaders who stimulate and inspire followers to both achieve extraordinary outcomes and, in the process, develop their own leadership capacity. Avolio and Bass (2002) opine that transformational leaders help followers' needs by empowering them and by aligning the objectives and goals of the individual followers, the leader, the group and the larger organization. Bass (1997) on transformational leadership reports that such leadership can move followers to exceed expected performance, as well as lead to high levels of follower satisfaction and commitment to the group and organization. Avolio and Bass (2002) opine that transformational leadership has much in common with charismatic leadership, but that charisma is only part of transformational leadership.

Rohmann and Rowold (2009) report that several meta-analyses provide evidence for a positive relationship between transformational leadership and both subjective and

objective outcome criteria (Judge and Piccolo, 2004). These meta-analyses, however, underlined that transformational leadership is, in general, more strongly associated with positive outcome criteria (e.g. satisfaction, work performance and commitment of the followers) than transactional leadership (Rohmann and Rowold, 2009). Even though Avolio and Bass (2002) discuss neutralizers of leadership style, which include subordinates, tasks and organizations that interfere with a leaders' performance, no mention is made of the influence of their gender roles and age on these established styles as factors that may interfere with these leadership styles. Nahavandi (2003) postulated that different leadership behavior is effective in different situations, giving credence to the theory of situational leadership. This leaves decision-makers in very difficult situations. Klenke (2003) opines that successful corporate transformation depends on effective decision-making, which ultimately involves the CEO, TMT and the Board of Directors, which has legal responsibility for the governance of the firm. The CEO is the executive who has the overall responsibility for the conduct and performance of the firm; clearly, his or her mindset, imagination and vision have a definite effect on corporate adaptation to constantly changing internal and external environments (Klenke, 2003). For a manager to effectively manage change and adapt to a rapidly evolving business environment, the decisions they make and the way these decisions are made are significant to effective management. Not only should leaders be able to select their behavior in changing situations but also their decision-making models should be selected appropriately (Russ *et al.*, 1996).

The structure of most organizations leaves the executives of such organizations, including non-profit organizations, as the frontliners of change management, business direction and employee leadership. Executives, according to Weisbrod (1988), act in the role of gatekeepers to the society, simply because they reserve the ultimate direction of product quality, service and consumer behavior in the economic environment. Executive and leadership decision-making will, therefore, affect or influence the continued existence of their non-profit organizations and, most especially, the society they provide these services.

1.1 Age, leadership and decision-making

Oshagbemi (2004) opines that there is need for a study of the leadership styles and behavior of younger versus older organizational leaders with the results of such studies identifying the similarities and differences of younger versus older workers for use by managers in directing the affairs of their organizations towards attaining their goals efficiently and/or effectively. Kabacoff and Stoffey (2001) while offering reasons for the importance of studying the influence of leadership styles and age postulate an assumption that multi-generational differences among organizational members have an impact on leader behavior and that this affects both individual and organizational outcomes (Oshagbemi, 2004). In a study focusing on financial decision-making and age, Samanez-Larkin (2013) postulates that many of the most influential financial decision-makers in our society from business to politics happen to be middle-aged. Samanez-Larkin reports that the average age of Fortune 500 CEOs and CFOs is around the mid-fifties. Evidence shows that all current members of the Council of Economic Advisers and half of the National Economic Council members are in their fifties, leaving the question of if there some sort of peak of financial reason in the fifties? (Samanez-Larkin, 2013). Agarwal *et al.*, (2009) identified the age around where mistakes

are minimized as 53 (Samanez-Larkin). According to Löckenhoff (2011), a review of the behavioral literature reveals that older adults are often more willing to wait over short-time delays for a larger amount of money compared to a smaller amount of money available immediately (Recent neuroscience research suggests that the accumulation of experience with delayed rewards over the life span may serve to tune activity in regions like the ventral striatum) (Samanez-Larkin, 2013). In two recent data sets, reported by Samanez-Larkin (2013), the strong sensitivity to immediately available rewards in the striatum in young adulthood is reduced in older age, as older adults show similar activity for rewards available now or later (Eppinger *et al.*, 2012; Samanez-Larkin *et al.*, 2011).

One interpretation is that it is as if the older folks know that $20 is going to be just as good in two weeks as it is today and those in their twenties just have not had the opportunity to realize interest rates over decades and appreciate the long-term rewards of waiting (Samanez-Larkin, 2013). This may be a situation where we should be trying to get those impatient young people to make decisions more like the older folks (Samanez-Larkin, 2013). According to a reporting by Samanez-Larkin (2013), a fascinating series of recent studies is doing just that; increasing the connectedness of younger people to their older selves (e.g. using virtual reality) reduces temporal discounting and increases savings in early life (Hershfield, 2011). Oshagbemi (2004) reports a study carried out by Kabacoff and Stoffey (2001), where a large sample survey on age differences in organizational leadership surveyed American and Canadian managers from a variety of organizations. Their aim was to examine multi-generational differences in leader behavior and its impact on individual performance. In the study design, participants were equally divided into younger (25-35) and older (45-55) age groups. Age differences, according to Cole *et al.*, (2008), in cognitive and affective processes, as well as changes in goals, have important theoretical and practical implications for how decisions are made and how they can be improved.

Age-related declines in the efficiency of deliberative processes predict that we will make poorer quality decisions as we age (Cole *et al.*, 2008). Age-related adaptive processes, however, include motivated selectivity in the use of deliberative capacity, an increased focus on emotional goals and greater experience or predict better or worse decisions for older adults depending on the situation (Cole *et al.*, 2008). To make good decisions, Cole *et al.*, (2008) report that decision-makers must not only have information that is available, accurate and timely, but also should be able to comprehend that information and its meaning. They determine meaningful differences between options and weight factors to match their needs and values while being able to make trade-offs and ultimately to choose (Cole *et al.*, 2008). On leadership styles and behavior, compared with older workers, the researchers found that younger workers feel more comfortable in fast-changing environments and are more willing to take risks and consider new approaches (Oshagbemi, 2004). Younger workers also operate with more energy and intensity and have a greater capacity to energize others, are more likely to seek out opportunities to take charge and push vigorously and competitively to achieve a high level of results and work to develop and promote themselves (Oshagbemi, 2004).

Albert and Steinberg (2008) opine that as a general rule, adolescents are more likely than adults over 25 to binge drink, smoke cigarettes, have casual sex partners, engage in violent and other criminal behavior and have fatal or serious automobile crashes, the majority of which are caused by reckless driving or driving under the influence of

alcohol. Because many of these behaviors appear inherently irrational when individuals understand their probable long-term consequences, it was assumed that adolescents must be less competent than adults in one or more of the elements of rational decision-making (Albert and Steinberg, 2008). Given evidence that adolescents do not differ much from adults in their capacity to rationally evaluate risk information, researchers have begun to look for other explanations of why adolescents, as a group, make riskier decisions than adults; also, this shift has led to expanded consideration of social, emotional and self-regulatory factors differentiating adolescent from adult decision-making (Albert and Steinberg, 2008). At the same time, research grounded in rational decision theory has made considerable progress in building models describing the cognitive factors that predict adolescents' health risk decisions (Albert and Steinberg, 2008).

1.2 Gender, leadership and decision-making

Alimo-Metacalfe (1995) opined that female and male constructs of leadership and empowerment seem to be different. Rohmann and Rowold (2009) report that leadership roles influence leadership behavior, while at the same time, leaders evoke certain expectations in co-workers when they are categorized as male or female. For instance, Rohmann and Rowold (2009) believe that agentic attributes – for example, dominant, independent and competitive – are more strongly ascribed to men than to women, while on the other hand, communal attributes such as helpful, sympathetic and interpersonally sensitive are ascribed more strongly to women than men. These attributes are expected to have an influence on the leadership roles and styles of individuals in management.

Missri (2008) engaged in two experiments which were conducted to attempt to find discrepancies between the genders by expanding the number of subjects and the complexity of the experiment. Rational choice was the initial focus of the analysis which resulted in showing no apparent differences between the two genders in terms of rational decision-making. The study refutes the general understanding that women are less or more rational than men as unfounded, based on their study, and both Experiment A and B prove so (Missri, 2008). According to Missri (2008), both genders were able to maximize choice in the same way, showing no clear advantage for any specific gender. Eagly and Johannesen-Schmidt (2001), analyzing a study with a large sample of managers in the USA that was meant to furnish norms for the Multifactor Leadership Questionnaire (MLQ) by Mind Garden (2000), offered evidence for the idea that women score higher on transformational leadership (Rohmann and Rowold, 2009). Female leaders as reported by Rohmann and Rowold (2009) seem to possess (and to show) more attributes that evoke among their followers feelings of respect and pride in working with them than do their male counterparts, while they also show more optimism concerning future goals and take the goals of their co-workers more strongly into consideration.

According to Klenke (2003), research on women in management suggests that women show a greater concern for interpersonal relationships and a reliance on the rules of fairness in the exercise of power, whereas men's power orientation is toward maximizing individual gains. Despite the general assumption that women are more cooperative and relationship oriented, empirical support regarding the differential use of power by women and men is far from conclusive (Klenke, 2003). It has been argued that women's more cooperative and compliant behavior in power-oriented situations

arises from their experience of having to adapt to low-power, low-status positions in organizations and in society, in general, not from their gender or internalized gender roles (Klenke, 2003). In the same study by Eagly and Johannesen-Schmidt (2001), women also scored higher on the scale "contingent reward", which is categorized as transactional leadership behavior, and women also seem to give their co-workers more rewards for good performance than men (Rohmann and Rowold, 2009). In contrast, men exceeded women on two transactional scales (active management-by-exception and passive management-by-exception) and on the *laissez-faire* scale expressing non-leadership, which means that male leaders tend to focus more on mistakes and problems, wait until problems get severe before intervening and are not present and involved at critical periods (Rohmann and Rowold, 2009). Rohmann and Rowold (2009) report that while men and women described themselves as similarly competent in terms of task and person orientation, female executives emphasized the importance of person-oriented characteristics for themselves as leaders.

Thus, there seems to be a greater incongruence between the female gender role and the typical leader role than is the case for the male gender role, and this, according to (Eagly and Johannesen-Schmidt, 2001), makes it more difficult for women to show a more agentic leadership style (Rohmann and Rowold, 2009). In another study by Carless (1998) including multiple perspectives, they showed that superiors evaluated female managers as more transformational than male managers, whereas subordinates evaluated their female and male leaders equally (Rohmann and Rowold, 2009).

1.2.1 Statement of problem. A number of scholars have assumed a causal relationship between making decisions in the "right way" and achieving favorable outcomes: A "better" process leads to a more advantageous result (Peterson, 1997, p. 32). Several studies have also tried to establish a relationship between age and gender and decision-making processes. Such relationships have also been attempted between the same demographics and leadership styles. Peterson (1997) reported that research on leadership styles has consistently implicated directive leaders as the cause of defective process and poor outcomes in group decision-making, thereby implying a link between leadership styles and decision-making models. Non-profit organizations like any other organizations are increasingly expected to be result oriented; executive leadership and decision-making style will, therefore, ultimately affect non-profit organizations' present and continued existence in the business terrain. Today, non-profit organizations are experiencing a developing growth in effective leadership and decision-making styles. With the knowledge of leadership and decision-making stated, we still do not know enough about the role of age and gender in decision-making and leadership skills in non-profit organizations. This study, therefore, aims to research this area to add to the little that is known. It has been deemed necessary, therefore, to study the relationship between demographic variables and the operational preferred decision-making models and also the leadership styles of leaders and executives who predominantly make the decisions that affect and effect change management, financial management, business direction and employee leadership of the non-profit organizations.

1.2.2 Theoretical framework. Decision-making styles are the learned, habitual response pattern exhibited by an individual, when confronted by a decision situation (Scott and Bruce, 1995). Scott and Bruce (1995) proposed four different types of decision-making models:

(1) rational decision-making style, which is characterized by a thorough research for and logical evaluation of alternatives;

(2) intuitive decision-making style, which is characterized by a reliance on hunches;

(3) dependent decision-making style, which is characterized by a search for advice and direction from others; and

(4) avoidant decision-making style, which is characterized by attempts to avoid making decisions (Scott and Bruce, 1995).

The rational style according to Russ *et al.*, (1996, p. 5) "is deliberate, analytical and logical". Rational decision-makers "assess the long-term effects of their decisions, and have a strong fact based task orientation to decision making". Rotter (1966) opined that the rational style seems related to initiation of a structure and an internal control orientation. Kohli (1989) has posited that both initiation of a structure and a higher internal control orientation may be linked to higher performance. Using the intuitive style for making decisions, on the other hand, involves feeling-orientation and is based on an internal ordering of the information leading to hunches (Russ *et al.*, 1996). These intuitive decisions are made relatively quickly and with limited information and are often changed if the intuition was in error (Russ *et al.*, 1996, p. 5). Russ *et al.*, suggest that "Intuitive decision makers are likely to be more error-prone and inconsistent, which may lead to uncertainty and loss of confidence in the manager by superiors and subordinates". According to Russ *et al.*, (1996, p. 5), "a dependent style of decision making is characterized by the use of advice and support from others in making decisions". Persons who report high on this element project responsibility for their decisions onto others (Russ *et al.*, 1996). The avoidant style in Russ *et al.*, (1996, p. 5) 's words "is characterized by delay and denial, the opposite of decisiveness". Janis and Mann (1977) opined that some individuals to reduce the anxiety associated with decision-making might use the avoidance of decision-making. The spontaneous style according to Russ *et al.*, (1996, p. 6) "is characterized by a strong sense of immediacy and an interest in getting the decision making process as quickly as possible". These types of decision-makers have been reported to make decisions on the spur of the moment without a lot of reflection, resulting in the decision-maker being viewed as decisive or impulsive, thereby making the link between high and low performance rather nebulous.

The Telling decision making style is marked by a "High Task – Low Relationship" behavior. Hersey *et al.*, (2001, p. 1723) explain that leaders who fall into this category will give specific instructions and closely monitor performance. Next is Selling, which is marked by "High Task – Low Relationship" behavior. Such leaders will give specific instruction and further give clear directions on how their decisions were made (Hersey *et al.*, 2001). Then, there is Participating, and this is marked by a "Low Task – High Relationship" behavior. Such leaders will share ideas and facilitate participation in making decisions (Hersey *et al.*, 2001, p. 173). Finally, there is Delegating, and this is marked by "Low Task – Low Relationship" behavior. Such leaders that fall under this category will typically turn over the responsibility for decision and implementation to their followers (Hersey *et al.*, 2001, p. 173).

1.2.3 Research hypothesis. To guide the process of this study, the following research hypotheses were developed to determine the relationship between the leadership styles and decision-making models as used by non-profit organization executives and leaders.

1.2.3.1 Hypothesis one

H1. There will be a significant difference in the decision-making models used among non-profit organizational leaders (rational, intuitive, dependent, spontaneous and avoidant) based on demographic variables: gender and age.

$H1_0$. There will be no significant difference in the decision-making models used among non-profit organizational leaders (rational, intuitive, dependent, spontaneous and avoidant) based on demographic variables: gender and age.

1.2.3.2 Hypothesis two.

H2. There will be a significant difference in the leadership style used among non-profit organizational leaders (selling, telling, delegating and participating) based on demographic variables: gender and age.

$H2_0$. There will be no significant difference in the leadership style used among non-profit organizational leaders (selling, telling, delegating and participating) based on demographic variables: gender and age.

2. Methodology

This research was designed to study the relationship between the decision-making models used by non-profit executives and their leadership styles of leaders as related to age and gender.

2.1 Design of study

This study is a quantitative research using correlation analysis and analysis of variance. The quantitative approach establishes facts, makes predictions and tests stated hypothesis and used the Pearson correlation coefficient, the ANOVA and the two-way analysis of variance. This study used surveys to collect data. Each of the executives and leaders were asked to complete the Leadership Behavior Description Questionnaire (LBDQ) XII Leaders Self Form and the General Decision-Making Style scale (GDMS). The LBDQ XII was used to collect information of leadership styles, and the General Decision Making Style Scale was used to elicit information of decision-making styles and models. The data collected were analyzed, using the Statistical Package for the Social Sciences (SPSS).

2.2 Population and sample size

The purpose of sampling is to obtain information about the population by randomly selecting groups from within the population. For the sample size in a descriptive study, a minimum of 100 is essential to a successful research (Fraenkel and Wallen, 1996). The target population for this study was corporate leaders and executives of non-profit organizations in the USA, and the participants were selected through a random selection method. A power analysis was conducted based on the total number of items on both instruments to be used, the LBDQ XII and the GDMS, to ensure that the statistical test will have adequate power. The sample size based on the results of the power analysis

was 100. The survey instruments were distributed to 500 executives randomly selected from the state of Texas in the USA; 38 were returned undeliverable, while 109 were returned and used for analysis. The researcher then sought direct access to the executives and leaders of these organizations, and approval to collect data from them.

2.3 Instrumentation

The GDMS instrument researched by Bruce and Scott (1995) contained 25, behaviorally phrased items measuring decision-making style. This scale is made up of five sub-scales: Rational (e.g. "I make decisions in a logical and systematic way"), Intuitive (e.g. "I generally make decisions that feel right to me"), Dependent (e.g. "I often need the assistance of other people when making important decisions"), Spontaneous (e.g. "I generally make snap decisions") and Avoidant (e.g. "I postpone decision making whenever possible"). Face validity and logical content validity for the GDMS ranges alpha's from 0.68 to 0.94, showing that certain decision-making styles are related to levels of innovativeness and control orientation (Bruce and Scott, 1995). Scott and Bruce (1995) study carried out on male military officers, MBA students and engineers and technicians found the reliability to be 0.76, 0.66 and 0.78, respectively (p. 822). The validity of the Decision-Making scale was carried out based on content validity.

The LBDQ was developed by the staff of the Personnel Research Board, The Ohio State University and directed by Dr Carroll L. Shartle (Stogdill, 1963). The instrument contains two factorial-defined scales, consideration and initiating structure. The LBDQ XII has 12 sub-scales, which contain five to ten items each. This behavioral inventory according to Halpin and Winer (1957, p. 3) was used to "collect ratings of military and industrial leaders by supervisors, subordinates, and observers". According to Stogdill (1963, p. 5), the estimated reliability of the LBDQ XII using the Kuder-Richardson formula "was 0.77 for initiating structure scores and 0.78 for consideration scores".

2.4 Data collection and other procedures

Each of the 500 randomly selected executives and leaders were sent a letter of consent along with the LBDQ and the GDMS scales. The packets were numerically coded to keep a record of respondents, and they also contained a stamped, pre-addressed return envelope and a cover letter, introducing the research and listing the benefits as it concerned them. The respondents were followed up after 20 days to remind them of the importance of completing the scales and sending them back. After 21 days, the packets were sent out again to another 250 participants. The data collected were coded according to the Likert scale codes, and the hypothesis using gender differences was also given a code of 1 for males and 2 for females. These were entered and analyzed using the SPSS 12.0 for windows with a significant level of 0.05 (Table I).

Gender	Frequency	(%)	Valid (%)	Cumulative (%)
Male	64	58.7	58.7	58.7
Female	45	41.3	41.3	100
Total	109	100	100	

Table I.
Respondents' gender

Note: $N = 109$

2.5 Data analysis approach

As earlier stated, the data collected from the instruments were analyzed using the SPSS edition for windows XP. The researcher utilized various descriptive and inferential statistical techniques. Frequencies, standard deviations, means, coefficients and percentages were produced after statistical analysis had been carried out. The researcher used the ANOVA for data analysis.

The ANOVA was used to analyze the two hypotheses. The first states that there will be no significant difference in the decision-making models used among non-profit organizational leaders (rational, intuitive, dependent, spontaneous and avoidant) based on demographic variables: gender and age, and the second hypothesis states that there will be no significant difference in the leadership style used among non-profit organizational leaders (selling, telling, delegating and participating) based on demographic variables: gender and age. The purpose of a ANOVA is to "compare the means of two or more groups (the independent variable) on one dependent variable to see if the group means are significantly different from each other" (Urdan, 2005, p. 92). The similarities between the ANOVA and the *t*-test have been questioned repeatedly. In an example where a research wants to find out which out of three samples a group is more receptive to, running multiple *t*-tests increases the likelihood of making a Type I error (i.e. rejecting the null hypothesis when, in fact, it is true). A one-way ANOVA fixes this problem by "adjusting for the number of groups being compared" (Urdan, 2005, p. 101).

3. Results and data analysis

Data were collected and analyzed based on the two hypotheses formulated to direct this study. The two hypotheses are as follows:

H1. There will be a significant difference in the decision-making models used among non-profit organizational leaders (rational, intuitive, dependent, spontaneous and avoidant) based on demographic variables: gender and age.

$H1_0$. There will be no significant difference in the decision-making models used among non-profit organizational leaders (rational, intuitive, dependent, spontaneous and avoidant) based on demographic variables: gender and age.

H2. There will be a significant difference in the leadership style used among non-profit organizational leaders (selling, telling, delegating and participating) based on demographic variables: gender and age.

$H2_0$. There will be no significant difference in the leadership style used among non-profit organizational leaders (selling, telling, delegating and participating) based on demographic variables: gender and age.

The results were computed using descriptive and inferential statistical analysis, including means, frequencies, percentages, standard deviations, alpha coefficients, split-half tests, *t*-tests and one-way ANOVA, computed using SPSS 12.0 for windows with a significant level of 0.05.

The age ranges for the non-profit organization executives reported between 33 and 62 years. Of the 109 respondents, 16 respondents (14.7 per cent) were 40 and under, 59 (54.1 per cent) respondents were 41 to 50 years old, 30 (27.5 per cent) respondents were 51 to 60 years old, and 4 (3.7 per cent) were 60 years and older. The average age was 47.12

years and the standard deviation was 7.24 years. Table II presents the descriptive statistics regarding age.

Data of the non-profit executives' decision-making models were collected using the GDMS scale, which was divided into five dimensions: rational, intuitive, dependent, avoidant and spontaneous models. Questions 1-5 represented the rational model; Questions 6-10 represented the intuitive model; Questions 11-15 represented the dependent model; Questions 16-20 represented the avoidant model, while Questions 21-25 represented the spontaneous model. Table III specifies the statistical distribution, mean scores and standard deviation of the non-profit executives' decision-making models and totals.

Data of the leadership styles of non-profit executives were collected using the LBDQ XII, which was divided into two dimensions: initiating structure and consideration. Table IV specifies descriptive statistics of mean and standard deviations of the observations of the two dimensions and their total.

The leadership styles of the non-profit executives in this study were considered as the combination of the two dimensions: initiating structure and consideration. Fleishman (1973) explained initiating structure as the degree to which a leader defines and

Table II.
Respondents' age

Age	Frequency	(%)	Valid (%)	Cumulative (%)
40 and under	16	14.7	14.7	14.7
41 to 50	59	54.1	54.1	68.8
51 to 60	30	27.5	27.5	96.3
61 and above	4	3.7	3.7	100.0
Total		109	100	100

Note: $N = 109$

Table III.
Non-profit executives' decision-making models

Dimension	M	SD
Rational	22.24	1.83
Intuitive	17.86	2.81
Dependent	18.93	3.31
Avoidant	9.79	3.79
Spontaneous	11.30	3.66
Total	80.12	15.4

Note: $N = 109$

Table IV.
Variable scores in leadership behavior questionnaire XII

Dimension	M	SD
Initiating structure	44.57	2.01
Consideration	42.98	2.31
Total	87.55	4.32

Note: $N = 109$

organizes his role and the roles of followers, is oriented toward goal attainment and establishes well-defined patterns and channels of communication. Consideration, on the other hand, is defined as the degree to which a leader shows concern and respect for followers, looks out for their welfare and expresses appreciation and support (Bass, 1997). The two dimensions, initiating structure and consideration, divide into four quadrants to produce telling, selling, participating and delegating.

Of the 109 respondents, 21 respondents (19.3 per cent) reported using the telling leadership style, 40 (36.7 per cent) reported using the selling leadership style, 27 (24.8 per cent) reported using the participating leadership style and 21 (19.3 per cent) reported using the delegating leadership style. Table V presents the descriptive statistics specifying the four leadership styles.

H1 studied the decision-making models used among non-profit organizational leaders (rational, intuitive, dependent, spontaneous and avoidant) based on the difference in demographic variables: gender and age. This hypothesis was tested by a *t*-test and one-way ANOVA. Rational decision-making model, $t = 0.444$, df = 94.05 and $p = 0.658$ reported no statistical significant difference in gender. However, with Intuitive, Dependent, Avoidant and Spontaneous decision-making models, results found a significant difference in gender. The *p*-value reported $p < 0.05$ on Intuitive ($p = 0.033$), Dependent ($p = 0.000$), Avoidant ($p = 0.000$) and Spontaneous ($p = 0.000$) decision-making models. Therefore, *H1* was accepted.

The findings from this analysis are provided in Table VI.

Dimension	Frequency	(%)	Valid (%)	Cumulative (%)
Telling	21	19.3	19.3	19.3
Selling	40	36.7	36.7	56.0
Participating	27	24.8	24.8	80.8
Delegating	21	19.3	19.3	100.0
Total	109	100	100	

Note: $N = 109$

Table V. Non-profit executive's four-dimensional leadership style

DS	Gender	Mean	*t*	df	*p*
Rational	Male	22.29	0.444	94.05	0.658
	Female	22.15			
Intuitive	Male	18.34	2.16	107	0.033
	Female	17.17			
Dependent	Male	20.26	6.20	105.49	0.000
	Female	17.02			
Avoidant	Male	10.85	3.87	105.38	0.000
	Female	8.26			
Spontaneous	Male	12.57	5.12	106.18	0.000
	Female	9.48			

Notes: $N = 109$; the mean difference is significant at the 0.05 level

Table VI. The significant differences on non-profit executives' decision-making models by gender

Analysis was carried out on the different decision-making models based on the non-profit executives' age. The results presented in Table VII show that the rational, intuitive, dependent, avoidant and spontaneous models were not significantly related to the executive's age ($p > 0.05$). Rational, for instance, showed as $F(3, 105) = 0.532$, $p = 0.661$, while intuitive reported as $F(3, 105) = 0.817$, $p = 0.488$. Dependent reported as $F(3, 105) = 0.295$, $p = 0.829$, avoidant reported as $F(3, 105) = 1.407$, $p = 0.245$ and spontaneous as $F(3, 105) = 0.897$, $p = 0.445$.

H2 required the analysis of the leadership styles which was used by the non-profit executives (telling, selling, participating and delegating) based on the different demographic variables (gender and age). This hypothesis was tested by using the *t*-test and one-way ANOVA.

The *t*-test was used to test for significant relationships between leadership styles which were used by the non-profit executives (telling, selling, participating and delegating) based on the demographic variable gender. The result found no statistical significant difference in gender-based telling leadership style $t = 0.327$, df = 107 and $p = 0.744$ and participating leadership style $t = 0.066$, df = 107 and $p = 0.948$. A significant relationship was, however, found between gender and selling leadership style $t = 2.31$, df = 102.33 and $p = 0.023$ or $p < 0.05$, and delegating leadership style $t = -2.99$, df = 67.28 and $p = 0.004$ or $p < 0.05$. *H1* was also accepted in this hypothesis. The results are provided in Table VIII.

The one-way ANOVA was used to test for significant relationships between leadership styles which were used by the non-profit executives (telling, selling, participating and delegating) based on the demographic variable age. The results

Table VII. ANOVA for different dimensions of decision-making models on the non-profit executives' age

DMM	SS	df	MS	*F*	Significance
Between group					
Rational	5.42	3	1.807	0.532	0.661
Intuitive	19.54	3	6.512	0.817	0.488
Dependent	9.90	3	3.301	0.295	0.829
Avoidant	59.91	3	19.97	1.407	0.245
Spontaneous	36.11	3	12.04	0.897	0.445

Notes: $N = 109$; the mean difference is significant at the 0.05 level

Table VIII. The significant differences on non-profit executives' leadership style by gender

LS	Gender	Mean	*T*	df	*p*
Telling	Male	0.203	0.327	107	0.744
	Female	0.178			
Selling	Male	0.453	2.31	102.33	0.023
	Female	0.244			
Participating	Male	0.250	0.066	107	0.948
	Female	0.244			
Delegating	Male	0.094	−2.99	67.28	0.004
	Female	0.333			

Notes: $N = 109$; the mean difference is significant at the 0.05 level

provided in Table IX show that the telling, selling, participating and delegating leadership style were not significantly related to the executive's age ($p > 0.05$). Telling showed as $F(3, 105) = 0.206$, $p = 0.892$, while selling reported as $F(3, 105) = 0.934$, $p = 0.427$. Participating reported as $F(3, 105) = 0.178$, $p = 0.422$ and delegating reported as $F(3, 105) = 0.084$, $p = 0.969$.

4. Discussion and findings

The decision-making models as used by executives of non-profit organization are discussed. The results of the data analysis show that more executives used the rational decision-making model than any other model. Based on the descriptive analyses of the current study, the results also showed that most executives used the selling leadership style in non-profit organizations in the state of Texas, USA This is followed closely by the participating leadership style with the delegating leadership style least used.

4.1 Hypothesis one

$H1_0$ states that there will be no significant difference in the decision-making models used among non-profit organizational leaders (rational, intuitive, dependent, spontaneous and avoidant) based on demographic variables: gender and age. There was a significant difference in most of the decision-making models used among non-profit organizational leaders based on demographic variables: gender and age; therefore, *H1* was accepted. The researcher found that the difference between the male (64) and female (45) who responded to the survey was not very much. This observation in the researcher's opinion creates enough balance between the genders to test for any significant difference between genders. Through multiple comparisons, the analysis showed that almost the same number of males and females used the rational decision-making models. Though the mean scores were generally high, comparisons show that executives who were 60 years and older used the rational decision-making model more than any other age group. Age may, therefore, be a factor for the use of rational decision-making model. According to Löckenhoff (2011), the review of the behavioral literature reveals that older adults are often more willing to wait over short-time delays for a larger amount of money compared to a smaller amount of money available immediately (Recent neuroscience research suggests that the accumulation of experience with delayed rewards over the life span may serve to tune activity in regions like the ventral striatum) (Samanez-Larkin, 2013). In two recent datasets, reported by Samanez-Larkin (2013), the strong sensitivity to immediately available rewards in the striatum in young adulthood is reduced in older age as older adults show similar activity

DS between group	SS	df	MS	*F*	Significance
Between group					
Telling	0.099	3	0.033	0.206	0.892
Selling	0.658	3	0.219	0.934	0.427
Participating	0.534	3	0.178	0.945	0.422
Delegating	0.041	3	0.014	0.084	0.969
Delegating	16.91	105	0.161		

Notes: $N = 109$; the mean difference is significant at the 0.05 level

Table IX. ANOVA for different dimensions of leadership style on the non-profit executives' age

for rewards available now or later (Eppinger *et al.*, 2012; Samanez-Larkin *et al.*, 2011). One interpretation is that it is as if the older folks know that $20 is going to be just as good in two weeks as it is today and those in their twenties just have not had the opportunity to realize interest rates over decades and appreciate the long-term rewards of waiting (Samanez-Larkin, 2013). This may be a situation where we should be trying to get those impatient young people to make decisions more like the older folks (Samanez-Larkin, 2013). According to a reporting by Samanez-Larkin (2013), a fascinating series of recent studies is doing just that; increasing the connectedness of younger people to their older selves (e.g. using virtual reality) reduces temporal discounting and increases savings in early life (Hershfield, 2011). Through multiple comparisons, however, the analysis from this study also showed that executives age 40 years and below tend to use the avoidant decision-making model more than any other age group, while those in the age group of 60 and above tend to use this model less than any other age group.

4.2 Hypothesis two

$H2_0$ states that there will be no significant difference in the leadership style used among non-profit organizational executives (selling, telling, delegating and participating) and different dimensions of demographic variables: gender and age. There was found to be a significant difference in some of the leadership styles used among non-profit organizational executives and different dimensions of demographic variables: gender and age; therefore, *H1* was accepted. Through multiple comparisons, the analysis showed that males tend to use the selling leadership style more than females, while females used the delegating leadership style much more than males. This analysis indicates that there is a significant correlation between gender and certain leadership styles. Comparisons also show that the executives 60 years and older tend to use the delegating leadership style more than any other age group. Comparisons also show that the 40 and under age group tends to use the selling leadership style more than any age group. The 60 and above age group showed the lowest average for using the selling leadership model. The 60 and above age group also recorded higher preference than any other age group when it came to the use of participating leadership style, with the executives age 40 and under recording the lowest preference.

5. Conclusions and recommendations

This study explored the relationship between the demographics, age and gender and the decision-making models (rational, intuitive, dependent, spontaneous and avoidant) and leadership styles (selling, telling, delegating and participating) of executives in non-profit organizations. The age of the executives also showed to be important factors that influenced executive's leadership styles and decision-making models as well. The age of the executives may be synonymous with the executive's experience working in business. Hambrick and Mason (1984) concluded that a manager's personal experience and values may be concluded from perceptible demographic categories, such as age. Age as mentioned earlier turned out to have more of a visible effect on decision-making models. Older executives tended to use the rational decision-making model more than any other decision-making model. Again, it is opined that the age of these executives will be synonymous with the number of years spent working in the business world. Rational

decision-making style may have been developed over the years for resolving more complicated situations.

Rational decision-making as reflected to in this study has been used by older, possibly more experienced non-profit executives. This model is favorable towards making-decisions on complicated issues. The final choice rational decision-makers select will maximize the outcome; it is assumed that the decision-maker will choose the alternative that rates the highest and get the maximum benefits (Robbins and Decenzo, 2003, pp. 141-142). The researcher suggests that non-profit executives, especially the younger executives, should attend management and leadership conferences that focus on rational decision-making models as concerns business strategies and making the best choices based on possible alternatives.

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