

Conjoint Analysis As Robust Measure Leadership Preferences: Evidence From The Military Service

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Abstract: The study proves that conjoint analysis is a robust measure of preferences as it offers to be a promising technique in determining the leadership preferences in the military service. The process of conjoint analysis in this study employs both qualitative and quantitative methods. The qualitative result shows that the ideal military leadership style in Baguio City and in Benguet is authentic, servant, transformational, and transactional leadership. The findings led to the construction of a data gathering tool for the quantitative method to determine the average importance utility weight that the respondents attach to their preferences on military leadership. Quantitative results reveal that the respondents give a higher degree of importance to military officers who carry out transformational, transactional, servant, and authentic leadership, in decreasing order of importance.

Keywords: Authentic leadership, conjoint analysis, military leadership, servant leadership, transactional leadership, transformational leadership.

1 INTRODUCTION

Military leadership refers to the process of influencing others by providing purpose, direction, and motivation, while operating to accomplish the mission and improve the organization [1]. As the concept entails, it applies to all armed forces but the implementation may vary across cultures, countries, and the commanders' leadership. Military leadership and its services are formed in a progressive series of carefully planned training and education which is more expensive than leadership training done in industries. A regular military officer usually takes four years in a military academy before undergoing other trainings like Airborne for the Army, flight or aviation for the Air Force, and navigation for the Navy officers to qualify in special operations. With all these trainings, military officers tend to hold high levels of responsibility and authority at low levels of the organization with an oath to perform their duty and services. Military leaders in the Philippines confront multi-faceted and complex problems with insurgencies throughout the history. Insurgency is defined as an "organized movement aimed to overthrow a constituted government through the use of subversion and armed conflict" and it is said to be a form of modern warfare. Differences in ideology and faith, problems of underdevelopment and poverty, and social dissatisfaction are some of the main issues that have given rise to insurrections in the country. The longest running insurgencies in the country is being waged by the Communist Party of the Philippines - New People's Army (CPP-NPA) and its affiliate groups are mainly based in the islands and the Southern Philippines Secessionist Movements operating in Mindanao. Though the government has successfully diminished the numbers and arms of the insurgent groups, they have not been completely eradicated. Both insurgent groups continue to engage in criminal and terrorist activities that threaten the country's internal peace and security. In the current administration, President Aquino stated that a purely military solution is not enough to completely solve them, effort to achieve genuine peace and security must be supported by all Filipino citizens. In compliance to the statement and current security agenda of the Commander-in-Chief, the Internal Peace and Security Plan (IPSP) or "Bayanihan" was crafted by the AFP which is an open invitation to the Filipino people to take part in shaping our nation's peace and security. Also, it serves as the guide for the AFP in performing their mandated functions of protecting the state and the people. "Bayanihan" is a Filipino term taken from the word bayan, referring to a nation, town or community. The whole term bayanihan refers to the spirit of communal unity or

effort to achieve a particular goal. The goal in the IPSP or Bayanihan is to achieve sustainable peace and security in the country, wherein every Filipino citizen is involved. The two different leadership backgrounds – military and civilian patrons – must work together to achieve this common goal. Military leaders need to know the leadership preferences of the stakeholders, while the latter need to understand military training and how do they perform their duty. Military officers must consider satisfying the stakeholders' expectations first because they are the forerunner of the IPSP. Likewise, it is beneficial to determine the importance of understanding the responsibilities of military leaders in relation to different stakeholder groups [2], [3]. Stakeholders' leadership preferences are important to study not only for the military services but also for the non-military organizations. As it has been noted, organizations' initiatives today must adhere to the values consistent to their stakeholders' involvement as their influence and power can affect the success or failure of an initiative [4], [5]. From the methodological perspective, the common statistical tools used by researchers in measuring preferences are weighted mean, correlation, and analysis of variance [6], [7], [8], [9]. However, weighted mean is limited to measuring the middle value of the given data set. A tendency of having a mean that is too high and too low is expected especially if the data is not specifically limited. Correlation on the other hand, measures the degree of relationship of two or more variables, e.g. servant leadership is correlated to spiritual leadership. Correlation proves that these two leadership styles are related with each other. The use of analysis of variance is a statistical technique that is usually used to evaluate differences between the average values across several population groups. In determining preferences, Anova shows the differences in the preferences of three or more groups. These statistical tools cannot describe the relative values of the attributes considered jointly, they measure individual attributes in isolation. Hence there is a need to explore tools that measure attributes jointly. In this regard, this study intends to look into the usefulness of a conjoint approach to measurement and analysis in addressing the preferences on military leadership. This paper specifically deals with the following research questions:

- (1) What are the leadership preferences in the the military organization?
- (2) What is the degree of importance attributed by the respondents in terms of the different leadership attributes (i.e., authentic, servant, transactional, and transformational) using conjoint analysis?

1.1 Theoretical Framework

This section reviews the literature related to leadership theories, military leadership, and conjoint analysis, which formulate the researcher's framework for describing preferred leadership. Fig. 1 suggests that the respondents' preference of military leadership is largely determined by leadership styles. It also suggests that the subjective perceptions of the importance of certain military leadership implicitly affect their judgment of military leadership practices. If, in the respondents' mind, a certain leadership attribute is important in the leadership of military officers, then the officer who displays this leadership will presumably be given a high rating; conversely, a military officer who fails to exhibit this behavior will be rated low in conjoint analysis.

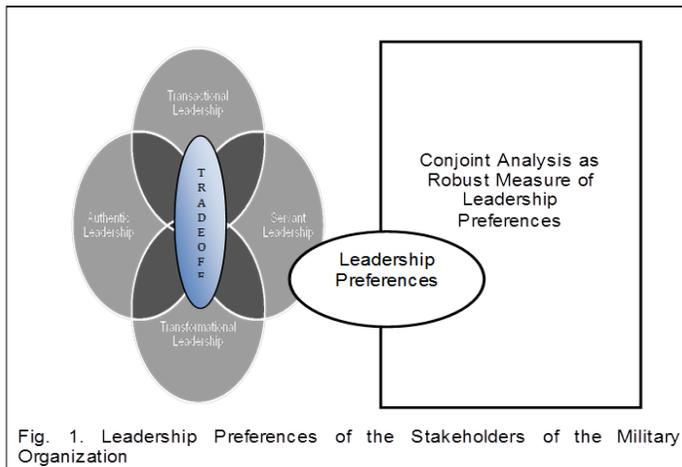


Fig. 1. Leadership Preferences of the Stakeholders of the Military Organization

Leadership Theories

Most leadership literature focuses on leader related skills, personal characteristics, and behaviors (e.g., authentic leadership, [10]; charismatic leadership, [11]; transactional leadership, transformational leadership, [12]; servant leadership, [13]. Leadership theories and practices seem to be the same particularly when the concern is limited on the leadership characteristics. The researcher adapted the study of [14] because the difference of the leadership theories has been clearly presented by using the focus of the leader as the key point of differences and it was used in the analysis of the leadership styles of top managers of Estonian companies.

Authentic leaders as described by [15] genuinely desire to serve others through their leadership. They are guided by the qualities of the heart and mind, by passion and compassion. They lead with purpose, meaning, values, and they build enduring relationship with people. They are consistent, self-disciplined, and are dedicated to developing themselves. Authentic leaders are anchored by their deep sense of self; they know they stand on important issues, values and beliefs. With that base they stay their course and convey to others, oftentimes through actions, not just words, what they represent in terms of principles, values and ethics. Authentic leaders focus on leader and follower self-awareness, and thus, may or may not be actively involved on developing followers into leaders. This study considers ethics as one indicator of authentic leadership as specified by [15]. The Army mandates continued ethics training for all military and civilian personnel. In this era of materialism, sensual gratification, and emerging technological innovations, it is essential that military leaders possess military

ethics [16], [17], [18].

Servant leaders' priority is to serve others – including employees, customers, and community [19]. They differ from other person's goodwill because they act on what they believe. They have the following characteristics: listening, empathy, healing, awareness, persuasion, conceptualization, foresight, stewardship, commitment, to the growth of people and building community [20]. The over-riding focus of the servant leader is upon service to their followers. Servant leadership in the military service is part of military duty, i.e., to serve and to protect the people. This study focuses on the practice of servant leadership of a military officer towards its stakeholders. The identified servant leadership characteristics above are the only basis of this study in identifying the leadership preferences of the stakeholders.

Transactional Leaders use reward and cohesion power in exchange process in order to satisfy immediate needs [21]. Kanungo and Mendoca [22] stated that leaders can offer resources to followers in exchange for the follower's compliance and the loyalty to the leader. Transactional leadership involves reinforcement: a leader either makes assignments or consult with followers about what is to be done in exchange for implicit or explicit rewards and the desired allocation of resources [23]. The focus of the transaction influence process is solely on the leader's objectives, needs, and concerns. The central traits of this style can be summed up as follows: reward-based, exchanged-based, importance of self-interests. Transactional leaders influence followers by controlling their behaviors, rewarding agreed-upon behaviors, and eliminating performance problems by using corrective transactions between leader and followers. Transactional leadership is mainly a hierarchy driven model, often found within the military. Participation in transactional leadership is often controlled resulting in a very little influence on outcomes; the brunt of the decision making rests solely with one leader not with the group as a whole; and the followers roles are determined by the head of the organization [24], [25], [26]. It is in this context that military leaders should necessarily be prepared to face immediate dilemma such as modifying initial plans.

Transformational leadership, in contrast, concentrates on satisfying higher needs and it is motivating, uplifting and more ethical [21]. It is about bringing a change in the follower's attitudes and values [22]. Transformational leadership consists of charisma (idealized influence), inspirational motivation, intellectual stimulation, and individualized considerations [12]. Leaders are optimistic, hopeful, developmentally oriented and of high character. They focus on transforming others and the organization through a powerful positive vision, an intellectually stimulating idea, and attention to uplifting the needs of followers and by having a clear sense of purpose [15]. They influence the others in the organization by inspiring them to achieve a common goal. Transformational leaders influence their followers by developing and communicating a collective vision and inspiring them to look beyond self-interests for the good of the team and organization [2], [27]. Their greater concern is for getting followers to engage in and support organizational objectives. In the military service, military officers need to motivate, uplift, and inspire their subordinates especially in critical situations during combat operations. Moreover, maintaining peace and order in the country is also one of the

duties of a military officer; to perform this duty according to the norms and expectations of the stakeholders is more difficult to do because stakeholders have different perceptions towards peace and order.

Conjoint Analysis: A Robust Measure of Preferences

The Common statistical tools that measures preference are weighted mean, correlation, or analysis of variance, however,

they measure preferences in isolation [6], [7], [8], [9], [28]. Table 1 shows the examples of leadership studies that used other statistical tools. Conjoint measurement is used to investigate the joint effect of a set of independent variables on an ordinal-scale-of measurement dependent variable. The independent variables are typically nominal and sometimes interval-scaled variables [29].

Table 1
Matrix of Leadership Studies

Author/Year	Title	Result / Leadership Attributes	Statistical Tool
Gennaro Francis Vito, Geetha Suresh, George Richards, (2011)	Emphasizing the Servant in Public Service: The Opinions of Police Managers	Servant, Autocratic, and Laissez-faire Leadership	ANOVA
Stephanie Kodatt (2009)	I Understand "You": Leadership Preferences Within the Different Generations	Charismatic, Self-protective, Humane- oriented, Participative	ANOVA and Correlation
Jessica Ho, David Yong, Poon Wai Ching, OOI Keng Boon (2009)	Closing the Leadership Gaps: Preferred and Perceived Leadership Style among Life Insurance Agents	Preferred leadership factors are Idealized Influence- Attributed, Intellectual Stimulation, and Individual Consideration.	Mean, Z - test
Geoffrey N. Soutar and Shaun Ridley (2008)	Looking at Leaders: Conjoint Analysis	inspiration, trust, and communication were the most valued leader attributes	Conjoint Analysis
John Humprey, Nan Jiao, and Theresa Sadler, (2008)	Emotional Disposition and Leadership Preferences of American and Chinese MBA Students	Emotional disposition is positively correlated with transformational leadership	Correlations
Mark A Rennaker (2008)	Listening and Persuasion: Examining the Communicative Patterns of Servant Leadership	Love, humility, vision, empowerment and listening	ANOVA
Zani Dannhauser & A. B. Boshoff, (2006)	Structural Equivalence of the Barbuto and Wheeler (2006)	Servant leadership, Trust	Pearson Correlation, ANOVA
Jones Howatson (2006)	The relationships between servant leadership, trust, team commitment, and demographic variables	Strong relationships were found among servant leadership, trust, and team commitment.	Pearson correlation, multiple regression, t-tests and ANOVA

Joint effects in conjoint analysis are used to understand how a person's preference for a product or services is being governed by the attributes of that product or service. Further, it is also based on the fact that the relative values of attributes considered jointly can better be measured than when considered in isolation. Several implementations of conjoint measurement are evidenced in conjoint analysis algorithms and computer programs. These implementations reflect both algorithmic differences and alternative approaches to data collection and measurement. The Ordinary Least Squares regression approach to conjoint analysis offers a simple yet robust method of deriving alternative forms of respondent utilities. The attractiveness of the OLS model is in part a result of the ability to scale respondent choices using rating scales, rather than rankings [30]. Conjoint Analysis has two objectives: a) to determine the contributions of predictor variables and their respective values to the determination of consumer preferences; and b) to establish a valid model of consumer judgments useful in predicting the consumer acceptance of any combination of attributes [31]. Research concepts are described by "profiles." Each profile is a combination of one arbitrary selected level for each attribute. While attributes are the key dimensions or features of products or services, levels are those specific points along the key dimensions. A numerical utility or part-worth is derived from the responses of each individual which measures the unique subjective judgment of preference, thus the value is computed for each profile. Large utilities are assigned to the most preferred profile and small utilities to the

least preferred. The attributes with the largest utility range are considered the most important in predicting preferences [32]. Conjoint Analysis assumes the following [31]:

1. A composition rule may be established to predict a response variable from two or more predictor variables.
2. There is a common composition rule for all respondents in the experiment
3. The variables and their levels are easily communicated
4. There is stability of evaluation across all variables and all levels of variables.

The conjoint model embraces the special cases of the vector model and the ideal point model. The Vector model is represented by a single linear function that assumes preference will increase as the quantity attribute p increases (preference decreases if the function is negative). Preference for the j th attribute is defined as:

$$Se = \sum_{p=1}^t w_p \cdot Y_{jp}$$

Where:

W_p = the individual's weights assigned to each of the p attributes. One weight is derived for each attribute.

Y_{jp} = level of the p th attribute for the j th stimulus

The ideal point model indicates that preferences Se is inversely

related to the weighted squared distance d_2 of the location Y_{jp} of the J th stimulus from the individual's mean rank Y_p where

$$D_{j2} = \sum_{p=1}^P w_p (Y_{jp} - Y_p)^2$$

Where:

Y_{jp} = Level of the j th stimulus with respect to the individual's ideal point, X_p .

X_p = The individual's ideal point, p , and

W_p = The individual's weight assigned to each of the p attributes. One weight is derived for each attribute.

Y_{jp} = Level of the p th attribute for the J th stimulus

Thus, a stimulus closer to the ideal point (with smaller D_{j2}) will be more preferred (usually with larger s_j values) than those more distant from the ideal point [30]. Metric conjoint models the judgments directly when all of the attributes are nominal and it is a simple main-effects ANOVA with some specialized output. The attributes are the dependent variable and the utilities are the parameter estimates from the ANOVA (SAS Technical Report R – 109). The following is a metric conjoint analysis model for three factors.

$$Y_{ijk} = U + B1i + B2j + B3k + E_{ijk}$$

Where

$$B1i = B2j = B3k = 0$$

The ability to capture and quantify the relative importance of such real-world tradeoffs has led conjoint analysis to be the most broadly used technique for measuring consumer preferences for over 30 years [28], [33], [34], [35], [36]. In the study of [37] and [38], conjoint analysis has been proven that the application of conjoint analysis in marketing is a fairly robust procedure for assessing an individual's preferences. This motivates the researcher to apply conjoint analysis in this study of leadership preferences to follow the study of [39]. Their study focused on eight leader attributes and the result showed inspiration, trust, and communications were the most valued leader attributes. In the Social Sciences, only a few researchers applied conjoint analysis in their studies. Locally, [29] applied the tool in determining the teaching preferences of the students and [40] as well used conjoint analysis in her thesis study "Determining students' preferences on teaching characteristics in Baguio and Benguet."

2 METHODS

This study was an exploratory investigation of the preferences on military leadership using conjoint analysis. The study consisted of two phases. Phase I, the qualitative approach was primarily employed to determine the respondents' ideal military leadership to serve as the basis in constructing the data gathering tool in the quantitative phase. Phase II, the quantitative method of analysis was used in determining the importance weights for the identified leadership preferences when rating the military leaders.

Qualitative phase is the source of the substance of the

quantitative phase; this phase is very essential because of the nature of the statistical tool to be used in the second phase which needs a set of stimulus profile for the respondents to rate their preferences on military leadership. The process in making the stimulus profile or the data gathering tool is a rigid task because it requires the preparation of leadership dimensions, levels, and factorial design. The researcher then guaranteed that the gathered qualitative data used in making the stimulus profile is reliable. The respondents of the first phase of the study were twenty five stakeholders of the military organization in Baguio and Benguet. They were selected using stratified random sampling technique. The respondents of the first phase of the study were twenty five leaders from various groups in Baguio and Benguet. They were the Armed Forces of the Philippines (AFP); political leaders who were elected mayors, board members, governors, and congressmen; Church leaders were the priest, pastors, and ministers; Business leaders were the Chief Executive Officers, business owners, and the managers; Government leaders were the staffs from the administrative level; Non-Government Organizations (NGO) are the founders of the organization or the elected officers; And for the student leaders, the elected officers in the Sanguiang Kabataan (SK) and the elected officers in tertiary schools were the composition of these leaders. They were selected using stratified random sampling technique and open-ended questionnaire was used to determine their perceptions on what is ideal military leadership to guide the researcher in constructing the stimulus profile needed in the second phase. Content analysis of the stakeholder's responses was conducted to come up with a list of their ideal military leadership. The results were sorted into groups according to similarities and were labeled accordingly. The groupings and the label of the result are validated in the researchers' review of literatures specifically on studies that established differences of leadership attributes.

Quantitative phase was employed to determine the importance that the respondents attach to their preferences on military leadership. The four identified leadership styles in the qualitative phase were subjected to conjoint analysis. The respondents of this phase were 243 leaders with the same groupings with the first phase from the seventeen regions of the country using multi-stage stratified random sampling. First stage sampling is the same with the qualitative method wherein the respondents were grouped according to the seven different sectors. Second stage is the clustering of the respondents according to the different regions in the Philippines, which makes seventeen strata. Every stratum is composed of at least one representative of the first stratification. However, the researcher gathered extra data to some regions to increase the sample of this research to strengthen the validity of the result. The attributes used in the profiles were based on the study of [14], [15] wherein the differences of leadership styles were fully established, organized, and fitted for the leadership combinations for this study. Table 2 presents the four dimensions of leadership with two levels (1 = High, 0 = Low). The two levels were used for the purpose of looking at the extreme preference of the respondents on what dimension of leadership they prefer. Thus, it would entail sixteen (16) combinations or profile in full-factorial design. This study, however, used the fractional – factorial experiment, which consists of a subset of the full-factorial design usually fewer in number. Oftentimes, a combination or profile that consists of all high or all low in attributes is discarded [29], [31]. Hence, not all combinations are feasible or make sense like

profile 1, 8, 12, 14, 15, and 16. Profile 1 consists of all high in servant, transformational, authentic, and transactional leadership which may not be a possible characteristics of a military leader based on the leadership differences build in the paper of [15]; in profile 8, only servant leadership is high, while the other three leadership attributes are low which does not offer a set of leadership combination, same with profile 12, 14, and 15; profile 16 consists of all low which doesn't make a

sensible combination. As a result, only ten profiles or combinations are used in the second phase of the study. The ten profiles are put in random order and constructed into stimulus sheets. On each evaluation, the combination of leadership attributes and the rate of a military leadership according to the said combination are rated with a 9-point scale ranging from very poor (1) to excellent (9).

Table 2
Leadership attributes included in the Conjoint experiment

Leadership	Levels
Authentic	1. HIGH in leading guided by the qualities of the heart, by passion, and by compassion. They are leading with purpose, meaning, values and they are building enduring relationship with people. They are consistent, self-disciplined, and dedicated to develop themselves.
	2. LOW in leading guided by the qualities of the heart, by passion, and by compassion. They are not leading with purpose, meaning, values and they are not building relationship with people. They are not consistent, self-disciplined, and not dedicated to develop themselves.
Servant	1. HIGH in: priority to serve others; in listening, empathy, healing, awareness, persuasion, conceptualization, foresight, stewardship, commitment to the growth of the people; and high in building community.
	2. LOW in: priority to serve others; in listening, empathy, healing, awareness, persuasion, conceptualization, foresight, stewardship, commitment to the growth of the people; and low in building community.
Transformational	1. HIGH in: bringing about a change in the followers' attitudes, ethics, and values; motivating, uplifting, and; concentrating on the satisfaction of higher needs. Leaders are optimistic, hopeful, developmentally oriented and of high character.
	2. LOW in: bringing about a change in the followers' attitudes, ethics, and values; motivating, uplifting, and; concentrating on the satisfaction of higher needs. Leaders are not optimistic, hopeful, developmentally oriented and of low character.
Transactional	1. HIGH in using reward and cohesion power in exchange process in order to satisfy immediate needs; and high in focusing the process of transaction influence on his objectives, needs, and concerns. Leaders are reward-based, exchange-based, and self-centered.
	2. LOW in using reward and cohesion power in exchange process in order to satisfy immediate needs and low in focusing the process of transaction influence on his objectives, needs, and concerns. Leaders are not reward-based, exchange-based, and self-centered.

Data Processing and Analysis

The leadership preferences were determined using the metric conjoint analysis of the Statistical Analysis System (SAS). The following procedure (lifted from the SAS Technical Report R – 109) was used in processing conjoint data. The leadership attributes and the rating data were entered into a SAS data set. SAS PROC TRANSREG was then used to perform a metric conjoint analysis. Printed output was requested by specifying the utilities option on the PROC STATEMENT. The extracted importance values and the created row and column labels, the PROC TRANSPOSE created a subject through attribute matrix. PROC PRINT displayed the importance values, and PROC MEANS displayed the average importance.

3 RESULTS AND DISCUSSION

Qualitative Result. The identified leadership preferences in Baguio and Benguet were classified based in the study of [14], [15]. The result shows that the preferred military leadership is authentic, servant, transformational, and transactional leadership. Out of the 25 respondents, 8 responses (32%) were classified in the characteristics of authentic leadership, 8 were categorized in servant leadership (32%), 6 fits in the characteristics of transformational leadership (24%) while the 3 were labeled in transactional leadership (12%), refer to Table 6. The open-ended questionnaire used in the study is freely answered by the respondents because it sets no limitation to the answers. As a result, it has been noted that the respondents stated their ideal military leadership based on their own beliefs and principles. Accordingly, authentic leadership can incorporate the other three leadership theories. However, the study of [15]

build the differences of these leadership theories, and [14] also describe the different approaches of different leadership styles which serve as the main tool in grouping the similarities of the qualitative result. The following were the leadership styles perceived by the stakeholders in Baguio and Benguet as ideal had their own specific indicators and examples, and for clarity and conciseness, the researcher edited the responses. Authentic leadership. It is an ideal military leadership to the 32 percent respondents. Genuine leadership is emphasized in the responses of two respondents while the serving with integrity is indicated by three. These imply that military leaders to be ideal in the perception of the respondents, they must show genuine leadership and they must lead with integrity. Based in the reviewed literature [15], authentic leaders are anchored by their own deep sense of self; they know where they stand on important issues, values, and beliefs which are indicated by a business leader as his ideal military leadership:

*A leader must be true to his self.
Two church leaders said that:*

An ideal military leadership is a genuine leadership that cannot be influenced by any temptations, who can lead with integrity, and be able, to stand positively even if all others give up.

Another indicator of authentic leader is they are guided by qualities of the heart, by passion, and compassion, as they are by qualities of the mind. They lead with purpose, meaning, and values and build enduring relationship with people. They are consistent and self-disciplined. They are dedicated to

developing themselves [14]. A political leader said that:

An ideal military leadership is doing beyond what is expected and the followers must be at peace in following their leadership. One student leader added that:

Military leadership must stand out with integrity, courage, self-discipline and fairness.

Servant leadership. It is the other ideal military leadership by the 8 stakeholders (32%) in Baguio and Benguet, this implies that these stakeholders (2 from the church, 1 each from the other groups) prefer military leaders that are leading by doing the work itself not by words or by commands as shown in. In servant leadership, leaders' number one priority is to serve others [14]. They differ from other persons of goodwill because they act on what they believe. A church leader and a student leader similarly said that:

An ideal military leadership must be like the leadership of Jesus which is to serve first before self; military leadership must be leading by doing.

Servant leadership has the following characteristics: listening, empathy, healing, awareness, persuasion, conceptualization, foresight, stewardship, commitment to the growth of the people and building community [14]. Two political leaders believed that: Military leadership is serving people and protecting the nation through actual actions not by words. Transformational leadership. Six respondents (2 student, 1 government, 1 business, 1 church, and 1 AFP) believed that an ideal military leadership is one that transforms the best for the country, must put into action his learned etiquette, and must have a positive point of view in life. All of these stated examples fall in the characteristics of transformational leadership in the study of [14]. Specifically, transformational leaders are optimistic, hopeful, developmentally oriented and of high character [15]. Leaders concentrate on satisfying higher needs, it is about bringing a change in the followers' attitudes and values. It is motivating, uplifting, and more ethical [14]. According to a business leader: *Military leadership must show and act the proper etiquette that they learn from their institution.* Transformational leaders may be able to transform others and organizations through a powerful, positive vision, an intellectually stimulating idea, and attention to uplifting the needs of followers and by having clear sense of purpose [15]. Military leader said that: A military leadership to become ideal - must be able to adapt intellectually to the real situations around his assignment because there are cultural differences or regional differences in our country. Transactional leadership. It is the ideal military leadership for three respondents (1 AFP, 1 church, and 1 business). In transactional leadership, leaders use reward and cohesion power in exchange process in order to satisfy immediate needs [21]; the focus of the transaction influence process is solely on the leader's objectives, needs, and concerns. A business leader believed that: *Military leader is a leader which primary objective is to assist and to protect the people and the nation when crises arise to fulfill their duty they choose.* Transactional leadership involves reinforcements: leaders either make assignments or consult with followers about what is to be done in exchange of implicit or explicit rewards and the desired allocation of resources [14], [23]. The central trait of this style can be summed up as follows: reward-based, exchange-based, importance of self-interests[14]. The ideal

military leadership of the respondents from the different groups is common. This imply that differences in educational attainment (students or professionals), profession (military, business, politics), belief (Ministers, politicians), and work doesn't influence their perception on what is an ideal military leadership. This is also true to authentic leadership as perceived by the other 8 (2 from business and 1 each from the other groups) respondents (32%).

Quantitative result. It shows the leadership preferences of the respondents based on the result of the conjoint additive model and the degree of importance attributed in the leadership preferences. The average utility weight of the four leadership dimensions according to the respondents from all over the country is shown in Table 3 wherein they gave the highest importance utility weight to transformational leadership with 29.29%. Next in rank is transactional leadership (25.35%), followed by servant leadership (24.20), and authentic leadership (21.16%). The ranking of the importance utility weight does not confirm to the frequency ranking in the qualitative phase. However, the small differences in the utility weight imply that these leadership styles provided by the initial phase is very much reliable, since each leadership style almost got their expected percentage share. If these four leadership styles are equally preferred, they should have 25% average importance utility weight.

Table 3
Average Importance Utility Weight

Leadership	Average Importance Utility Weight
Transformational	29.29
Transactional	25.35
Servant	24.20
Authentic	21.16

Specifically, based on the simple conjoint model used in the study, the additive constant is 9.58%. This implies that 9.58% is the constant utility weight of a military leader, if the leader shows the attributes of servant leadership, an average utility weight of 24.20% is added to the additive constant. Also, 29.29% is added if transformational leadership attributes was perceived in his/her leadership, 21.16% is also added if authentic leadership is present, and 25.35% to transactional leadership.

$$U_j = .958 + .2420 (\text{servant}) + .2929 (\text{tranf}) + .2116 (\text{auth}) + .2535 (\text{transac})$$

Where .958 = is the additive constant

This result corroborates that transformational leadership is the needed leadership in the military according to the study of [24]. This studies finds that visionary thinking, as well as the ability to inspire, empower, and network are essential in the military training. However, based on the differences of leadership styles in the studies of [14], [15], there's no leader who puts into practice all the leadership styles used in the study. However, in extreme cases where respondents might not give rating because they believe that the military officers doesn't show any of the attributes of the four leadership styles in the given profile, the value of the additive constant would be the rate of the military leader who would not show any of the attributes of the

four leadership styles. The small differences in the average percentages of the result shows that all these leadership dimensions presented to the respondents are likely important for them. Military officers who practice any of these leadership styles will still be rated high even if he do not have the qualities of the other three leadership styles. According to the 243 respondents, a leader who is optimistic, hopeful, developmentally-oriented and of high character is the most important leadership style that a military officer should observe. In a developing country like the Philippines, it is apparent that the respondents aspire for a transformational development in the military service because their good leadership ensures national peace and security, which is the aspiration of every citizen, to live peacefully [41]. In the study of [22], transformational leadership is conducive to the developing countries because it is only a transformational leader can address the contradicting needs of ushering change, while addressing the unique cultural differences. The second leadership preferences with highest importance utility weight is transactional, a leader who use reward and cohesion power in exchange process is important to the respondents. This corroborates with the result of the study of [5] that the effect of transactional leadership is connected to the profitability of the organizational performance. A leader who gives reward to his workers gains more profit because they are expected to excel in their performance. For military leaders, the using of reward and cohesion power to the subordinates satisfies the latter that would result to a good working relationship among them in accomplishing their duty. The 24.20% importance utility weight is specified for a military officer who lives out servant leadership. The respondents gives a high preference rating to a military officer who's priority is to serve others, who has empathy, who listens to his people, who practices stewardship, and who is committed to the growth of the people and the community. Authentic leadership is the least preferred leadership style for a military officer. The 21.16% average importance utility weight was almost one fourth of the total utility, thus, it was almost equally perceived as important like the other three leadership styles. This means that the respondents who rated the profiles fully understand that a military officer expects to perform 21.16% authenticity in their leadership. That is to lead guided by the qualities of the heart, by passion, and by compassion given that these leaders were guided by the commander-in-chief of the Philippines, by their direct commanders, by laws, and by rules and regulations. Table 4 shows that the average utility weight of the four leadership dimensions according to the preferences of the different groups.

Table 4
Average Importance Utility Weight

Leaders	Constant	Transf	Trans	Servant	Authentic
AFP	6.70	22.74	23.81	31.66	21.79
Church	6.14	31.71	7.13	33.04	28.12
Business	5.32	19.65	48.88	18.12	13.35
Gov't	6.42	22.03	29.17	35.47	13.33
NGO	6.45	11.11	44.44	11.11	33.33
Political	6.12	49.99	16.67	16.67	16.67
Students	5.71	47.79	7.34	23.4	21.47

The AFP from all over the Philippines give the highest importance utility weight to servant leadership. This means that

the AFP, as military leaders themselves prefer servant leadership above all the leadership dimensions presented to them. It just only shows that their perception to a military officer like them, must to put into practice their duty as public servants. Transactional leadership was the second preferred leadership by the AFP which may imply that military officers must also practice the use of reward and cohesion power in exchange process to satisfy immediate needs. This is important for military leaders because some of their mission needs the cooperation of the people, as a result, transactional leadership must be one of the characteristics of a military officer. He must know how to negotiate with the other organizations, to groups of people, and even to their adversary to accomplish his/her mission. The value of the additive constant (6.70%) in the given model is the constant when the respondents don't provide any rating to the given combination of the four leadership styles. This means that when there's no rate given to the leadership combinations, the military officers still get a utility weight of 6.70% because every military leader have value or utility in the military service. However, if 22.47% is the given utility weight to transformational leadership, then it will be added to the value of the additive constant (6.70 + 22.74) and same with the other utility weight of the three leadership styles. The 22.74% average importance utility weight is given transformational leadership by the AFP to their preferences on the leadership of the military officers. The 1.07% difference importance weight of transactional to transformational leadership and the 0.99% difference between transformational to authentic leadership implies that the importance of the three leadership dimensions according to them is almost equal. The priest, pastors, and ministers have different point of view in rating the military leaders. Church leaders' vocation is to serve rather than to be served, hence, it replicates in their preference that servant leadership acquired the highest percentage, followed by transformational leadership, authentic leadership, and transactional leadership. Church leaders gave the highest percentage to servant leadership as it is expected that these leaders from the church acknowledge that the military officers were public servants as they were. They prefer that service to the country and to the people is the most important characteristics of a military officer. Transformational leadership has the second highest importance utility weight (31.71%) in the conjoint model of the church leaders. These church leaders expect that military officers observe peace and order as one of their mission to perform. As a result, they must be the leaders in transforming peace and order in the country. Respondents from the church support the security plan of the president, where the military officers must lead in the implementation of "Bayanihan" all over the Philippines by the joint effort of the entire citizenry and the AFP. "Bayanihan" or the IPSP is the current thrust of the Philippine administration, which is to sustain peace without war in the country. The result shows that military officers need 31.71% transformational leader characteristics in their military leadership as perceived by the church leaders in the country. Also, 28.12% on the leadership of the military officers must be a kind of leadership that is guided by the qualities of the heart, passion, and compassion. They must be consistent and self-disciplined. For the church leaders, transactional leadership is not that too important for a military officer by giving average importance utility weight of only 7.13%. Respondents from the business sector prefer a military leader who practices his leadership as 48.88% transactional which is almost half of the average importance utility weight. This means that if a military officer practices transactional leadership, he is

given a 48.88% of the total importance utility weight. If he also practices transformational leadership, 19.65% will be added to his rating. Then another 18.12% is added to his average importance weight if he shows servant leadership. And lastly, 13.35% will complete the preferred leadership of the respondents from the business sector. The respondents from the government in the Philippines give the highest important utility weight to servant leadership with 35.47%. This means that servant leadership is the most important leadership among the other three leadership dimensions. This shows that they give one third of the total utility weight to servant leadership, which means that if a military officer practice servant leadership, he gets 35.46% in the utility weight. Transactional leadership was the second preferred leadership by the respondents from the government by giving 29.17%. Government leaders imply that military officers must also develop their transactional leadership. This is perceived to be important for military leaders because the nature of their duties and responsibilities in the country. The 22.03% average importance utility weight given by the respondents from the government on their preferences on the leadership of the military officers is transformational leadership. On the other hand, the remaining 13.33% is given to authentic leadership. Respondents from the NGO prefer a military leader who practices his leadership as 44.44% transactional leadership; this means that if a military officer practices transactional leadership, he is preferred by the NGO leaders and gives 48.88% utility weight. In addition to that, if he also practices authentic leadership, 33.33% will be added to his rating. Then 11.11% is added to his average importance weight if he shows servant leadership. And lastly, 11.11% will complete the average utility weight if he put into practice transformational leadership. The importance utility weight given by the respondents from the political sector was 49.99% to transformational leadership; this implies that if a military officer shows the characteristics of a transformational leader, his average importance utility weight is already half of the total utility weight given by the political leaders. On top of that, 16.67% will be added to the importance utility weight in every leadership style shown by the military officer. The group of the students gave the highest important utility weight to transformational leadership which may imply that transformational leadership is the most important leadership among the other three leadership dimensions as perceived by the students. This shows that student leaders gives almost one half of the total utility weight to transformational leadership, which means that if a military officer practice transformational leadership, he gets 47.79% from the total utility weight of the conjoint analysis. Servant leadership was the second preferred leadership by the student leaders by giving 23.40% importance utility weight. Also, these young leaders in the Philippines will give additional 21.47% to the military officer provided that he will also show authenticity in his leadership and 7.34% completes the total utility weight if transactional leadership is also displayed. To determine why these young leaders in the tertiary level without enough experiences prefer transformational leadership over the other three leadership styles, the leading source of analysis is the given leadership combinations presented to these young leaders. In the given ten sets of leadership combinations, the attributes of transformational leadership in the one level is high in: bringing about a change in the followers' attitudes, ethics, and values; motivating, uplifting, and; concentrating on the satisfaction of higher needs. Leaders are optimistic, hopeful, developmentally oriented and of high character. This conforms

to the qualitative result that two out of four students who answered the open-ended question state that their ideal military leadership must not be limited to accomplishing one's mission, but must seek the best accomplishment for the country and must have a positive point of view in life. These young students in the Philippines with their limited experiences in leading aspire for the transformation of the military leaders for the good of the country and since they are leaders in their own organization or community, their preferences are ideal which must be respected. Generally, the preferences on military leadership vary from one respondent to the other. Political and student stakeholders prefer transformational leadership while the rest have their respective preferences too. The result supports the assumption that student and political leaders are idealistic and principled [42]. They are also looking up to transformative leaders in the belief that these are catalysts of change in the organization or society as a whole. On the other hand, respondents from the church, AFP, and the government are expected to select servant leadership as their preferred military leadership over the other types of leadership. Serving the followers first before self is common to the church and the AFP leaders while the government leaders are mandated by law to serve the people. The result manifest that their preferred military leadership for one military officer must be a servant leader, one who choose to serve others first before serving themselves. Respondents from the business sector and from the NGO prefer transactional leadership as this describes best their roles in the society. They have the ability to control people's behavior by offering resources or services to followers in exchange of their compliance [43].

4 CONCLUSION

This study confirms that conjoint analysis offers a new methodology in determining leadership preferences in the military service. The leadership attributes are treated jointly and were presented in different combinations for the respondents to rate individually the profile wherein the attributes of the four leadership styles were measured jointly.

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