PRIORITIZING CAREER MANAGEMENT ACTIVITIES ON YOUTH LEADERS' RETENTION: A SPHERICAL FUZZY ANALYTIC HIERARCHY PROCESS-BASED APPROACH

ABSTRACT

As youth organizations play a vital role in nation-building, retaining elected officials is essential for organizations to maintain created value. Youth are distinct from previous generations in their attitudes, behaviors, and personalities, and retaining them requires a distinct management strategy. This study aims to provide decision-makers with a more effective and efficient instrument for evaluating the types of career management activities contributing to the retention of SK Chairpersons. This study uses a spherical fuzzy analytic hierarchy-based approach to examine factors and activities according to their importance. It was conducted at Talakag, Bukidnon, participated by the SK Federation with twenty-nine (29) SK Chairpersons. The results indicate that "leadership and Management" is the most important factor, that "supportive leadership" has a significant impact on their retention, and that "development-oriented career management activities" have the greatest influence on increasing the retention of SK Chairpersons. To accomplish more with youth programs and activities, the federation, under the supervision of the Barangay Council in each barangay, should prioritize Career Planning and Reflection, Performance Feedback, and Skill Development.

Keywords: Sangguniang Kabataan, SK Chairperson, multi-criteria decision making, spherical fuzzy sets, spherical fuzzy analytic hierarchy process, career management activity

1. INTRODUCTION

Youth possess immense creativity and vitality that can be utilized to boost their development and help them realize their full potential [1]. World Health Organization (WHO) and United Nations (UN) believe that young people are leading change and supporting the pandemic response and efforts in local communities worldwide via volunteer work and grassroots initiatives. This makes it possible for other underprivileged individuals to get motivated and implement the solutions in their own communities. Moreover, localizing youth organizations can solve the nation's problems [2].

In the Philippines, youth organizations are recognized and accredited by the Securities and Exchange Commission (SEC), which plays different roles according to their advocacies. Among them is the Sangguniang Kabataan (SK) which was institutionalized under the Local Government Code of 1991 under RA 10742 [3], also known as the Sangguniang Kabataan Reform Act of 2015, and amended in RA 11768, and is supervised by the National Youth Commission (NYC). SK's overarching objective is integrating youth into nation-building and local governing processes and promoting their well-being through effective and responsive mechanisms and programs [4]. The SK's main priority is to create and carry out programs, projects, and activities, but are not limited to, among the nine centers of youth development as stated by the united nations goal as follows; Equitable access to quality education, Environmental protection, Climate change adaptation, Disaster risk reduction and resiliency, Youth employment and livelihood, Health including health services and adolescent sexual and reproductive health, Anti-drug abuse, Gender sensitivity, and Capability building which emphasizes leadership training.

The Sangguniang Kabataan was dogged by controversy and mistrust in its formative years, which led to several requests for its abolition over time [5]. Some of the critical areas of weakness are creating sound legislation, not consulting young organizations and constituents, and failing to match up programs being carried out by SK officials with the needs highlighted by the youth [6]. Despite the paucity of published academic studies on the SK, several research supports conclusions. One of the main drivers of change is the SK Chairperson's need for knowledge and training about the execution of successful initiatives, further supported by their own opinions [7].

Talakag, Bukidnon is one of the municipalities in the country that has records of inactivity of SK Chairpersons. The recent evaluation of the Municipal Local Government Operations Office (MLGOO) on

the Youth Governance Sector shows that as their term concludes, their participation in the Barangay youth development programs becomes lesser.

Talent retention is essential for organizations to maintain the value they have generated in the modern world. The attitudes, habits, and personalities of millennials differ from those of earlier generations; thus, us keeping them on board calls for a specific management program [8]. Additionally, organizations must develop a more adaptable approach for keeping all types of members, from occasional contributors to long-time philanthropists, by considering members' goals [9]. Furthermore, prioritizing such career management activities is essential to achieve the goal of SK officials' retention process.

After being developed by Saaty [10], AHP quickly became one of the most popular MCDM tools for prioritizing criteria and options due to its capacity to wrap up the entire decision-making process. Fuzzy sets, first suggested by Zadeh [11], quickly gained much attention in MCDM because they cope well with the imperfect information and ambiguity that many real-world issues contain. Numerous extensions to the original fuzzy sets, including type-II, intuitionistic, hesitant, Pythagorean, and Neutrosophic fuzzy sets, have been developed due to the dramatic increase in complexity and ambiguity in modern corporate life [12]. Spherical fuzzy sets, created by Kutlu Gundogdu & Kahraman [13] are one of the newest extension family members and are considered applicable to assessment, evaluation, and prioritization problems because it allows decision-makers to assign membership degrees since the squared sum of the spherical parameters can be at most 1. Also, decision-makers have a larger preference domain to assign membership degrees to according to the concept of spherical fuzzy sets (SFS) [13]. Thus, creating a spherical fuzzy AHP algorithm will be of use to the problem at hand.

Following the introduction, there are five sections in this study. Section 2 states the related literatur. Section 3 describes a methodology based on a novel spherical fuzzy AHP method for the MLGOO and Barangay Council to improve the retention of SK Chairpersons, and its specifics are discussed. Section 3.5 describes the proposed model in detail with its main and sub-criteria, and the criteria weights are computed. Section 4 in the results and discussion provides a numerical example from the actual world to demonstrate the model's practical applicability. In section 5 and section 6, a brief conclusion and recommendations for the future are presented, respectively.

2. RELATED LITERATURE

The Philippine government is the only nation in the world that has a process of incorporating the young sector into governance [1]. This is in response to the appeal of the United Nations Convention on the Rights of Children to develop an avenue wherein they may actively represent their sector in the operations of the local government and the country as a whole.

In the modern corporate environment, loyalty to companies has disappeared, and millennials commit to their professions rather than organizations [7]. Diversity is also valued, and there must be some degree of turnover. But it's also challenging to find qualified workers in the market [8].

According to Baruch, activities that are official and fundamental include work rotations, internal job listings, and career mapping. All organizational jobs are depicted on career maps, along with the qualifications for advancement in each position. They provide details about the positions, such as the prerequisite knowledge, abilities, and expertise. It is challenging to create career maps in the unpredictable and changing corporate environment of today. To assess whether these prospects align with their professional aspirations or not, workers still want to see their future opportunities inside the firm in a realistic manner [9].

The spherical fuzzy analytic hierarchy process (SF-AHP) was invented by Gündodu and Kahraman [13] who used it to choose industrial robots and renewable energy sources. In order to demonstrate the spherical fuzzy VIKOR (SF-VIKOR) technique's applicability, expanded the traditional (VIKOR) approach thus created a novel approach to prioritization problems.

3. METHODOLOGY

Selecting the most effective career management activities for the retention of SK Chairpersons involves a novel approach; to achieve this objective, the following methodologies were implemented:

3.1 Data Gathering

This study surveyed twenty-nine elected SK Chairpersons through in-person written interviews. Two sets of questionnaires will be given. The first one measures their inactivity, which answers their demographic location, and barangay or municipal youth-related programs or events they have organized or participated in. The second one will answer their preferences on the criteria which will be guided by the SFAHP framework for sustainable career management activities and to understand the aspects affecting their retention.

3.2 Definition of the Main criteria and Sub-criteria

The classification and definition of the main criteria and sub-criteria are shown in Table 1

Table 1. Classification and definition of the major and sub-criteria.

Indicator Facet	Sub-indicator Facet
C_1: Leadership and Management	LM_1: Trust to Management
	LM_2: Supportive Leadership
	LM_3: Positive Relationship and Communication
C_2: Improvement Opportunity	I_1: Cross-Functional Teamwork
	I_2: Professional/Technical Improvement
	I_3: Personal Improvement
C_3: Organizational Climate	OC_1: Empowerment
	OC_2: Appreciation and Recognition
	OC_3: Respect for Work-Life Balance
C_4: Structure	S_1: Organizational Strategies
	S_2: Honorarium and Benefits
	S_3: Organizational Justice

The model's criteria can be described as follows:

Leadership and Management (C1)

Inspiring and motivating SK Chairperson will impact effective leadership skills by defining a clear vision, providing purpose, and articulating goals and expectations. They boost morale and productivity. When respected and motivated, they remain longer.

Strong leadership and management develop trust and positive employee connections. Approachable, helpful, and open leaders build trust. This trust allows individuals to voice issues, seek advice, and collaborate with administrators. Trust in leaders increases satisfaction with work.

Effective Communication between managers and leaders informs team members about organizational changes, goals, and expectations. Transparent communication reduces individuals' stress and uncertainty. SK Chairpersons are more engaged and dedicated when they are informed and connected.

In summary, Inspiring and motivating SK Chairpersons, developing trust and connections, fostering good communication, recognizing and rewarding success, supporting professional growth, and managing work-life balance all impact retention. Strong leadership and management lead to employee retention, higher productivity, lower turnover costs, and pleasant work culture.

The sub-criteria of leadership and management are:
Trust to management (LM1)
Supportive leadership (LM2)
Positive relationship and communication (LM3)

Improvement Opportunity (C2)

Improvement opportunities are workplace chances to improve. It can include learning new abilities, taking on tough tasks, being promoted, or being given more responsibilities. Improvement opportunities help retain individuals for the following reasons:

Career advancement: SK Chairpersons demand career growth. They're more inclined to stay with an organization if they can progress and learn new abilities. Improvement chances show that the organization cares about its individuals' careers.

Improvement opportunities engage and encourage people. Learning new things stimulates and challenges people. This boosts personal fulfillment and organizational loyalty. Engaged individuals are less likely to leave their positions because they are fulfilled and purposeful.

The sub-criteria of leadership and management are:
Cross-functional teamwork (I1)
Professional/technical improvement (I2)
Personal improvement (I3)

Organizational Climate (C3)
Organizational climate is its atmosphere and surroundings. SK Chairpersons' attitudes, values, behaviors, leadership style, communication strategies, and corporate policies shape it. Organizational climate affects teamwork, job satisfaction, and whether they remain or leave.

Job Satisfaction: Positive organizational culture boosts job satisfaction. Satisfaction is higher when they feel appreciated, supported, and respected. A positive work environment comprises a supportive culture, fair treatment, growth and development opportunities, work-life balance, and appreciation for contributions.

Individuals value work-life balance. Flexibility, remote work, flexible scheduling, and family-friendly policies help retain talent. SK Chairperson who feels supported personally is more inclined to stay.

The sub-criteria of organizational climate are:
Empowerment (OC1)
Appreciation and recognition (OC2)
Respect for work-life balance (OC3)

Structure (C4)
The structure affects SK Chairpersons' retention. A well-designed structure helps individuals understand their jobs, responsibilities, reporting lines, and career growth. Structure helps retain personnel:

Accountability and feedback: Structure creates clear reporting lines so individuals know whom to report to and whom to ask for help. Regular feedback and regular performance assessments assist individuals in identifying their strengths and weaknesses, improving professional progress and job happiness.

Fair-minded individuals may remain longer and behave better. Distributive justice affects turnover. Fairness and process also affect the retention of officers.

The sub-criteria of the structure are:
Cross-functional teamwork (I1)
Professional/technical improvement (I2)
Personal improvement (I3)

The model's career management activities are described as follows:

System-oriented career management activities (A1)
It refers to formal and important SK Chairpersons activities, including committee rotations and career mapping. Career maps show the organizational structure and requirements for each position's advancement. They include information on the roles, such as what is required, expertise, skills, and experience.

Development-oriented career management activities (A2)
Coaching, mentoring, and training are examples of development-oriented activities in career management. Exercise for training and development strengthens the relationship between SK Chairpersons and constituents, provides flexible and competent members, and increases retention.

Relationship-oriented career management activities (A3)
Two examples of relationship-based career management activities are career counseling and performance management systems based on feedback. These events provide SK Chairpersons with career-related input from their peers, constituents, and youth development professionals. At the level of the youth organization, the team, and the officials, performance management with multidimensional feedback is a method that seeks to increase productivity.

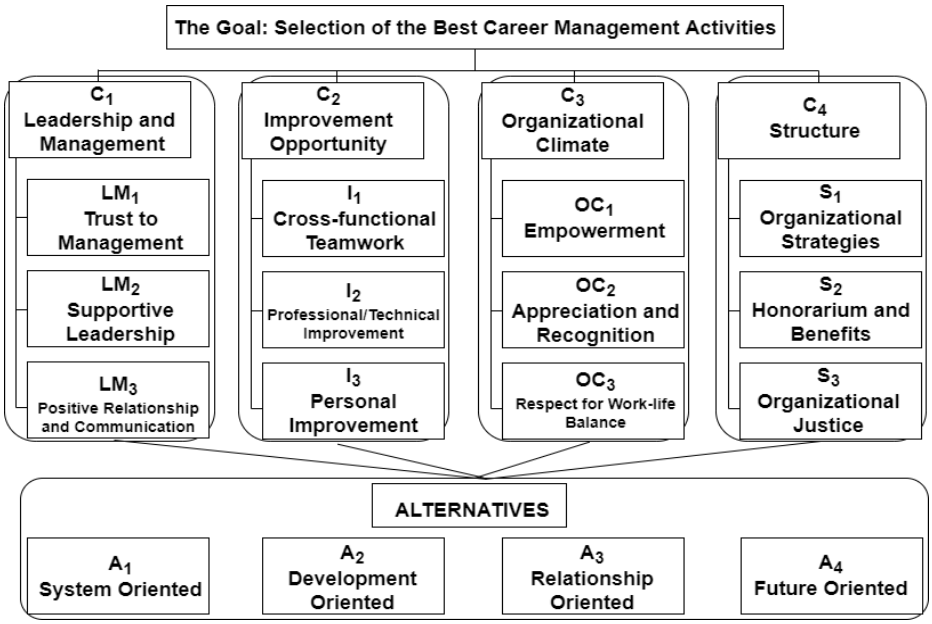
Future-oriented career management activities (A4)

These career management activities consist of succession planning and talent management. The process of talent management is complex and involves numerous approaches. To accomplish the organization's strategic objectives, talent management activities such as talent pool creation, leadership training, succession selection, planning, development, and retention must be implemented.

3.3 Framework

This study prioritizes career management activities to retain SK Chairpersons on their service. Figure 1 shows the final SFAHP design decision to adjust the career management SFAHP structure and serve as the basis for the decision-makers' prioritization process. This study creates four main criteria facets, twelve sub-criteria, and four career management alternatives.

Figure 1. The proposed model for career management activity selection decision



3.4 Spherical Fuzzy Sets

Spherical fuzzy sets (SFS) were created based on the idea that SK Chairpersons, as decision-makers, can naturally express their hesitation regardless of membership or non-membership. It combines Pythagorean and Neutrosophic Fuzzy Sets. It lets decision-makers use membership functions on a spherical surface and set all parameters, including hesitancy, in a bigger domain. Thus, in SFS, each membership, non-membership, or hesitating parameter can be taken individually as long as its squared sum is no higher than 1. in this case, it can be defined using Equation (3).

SFS $\tilde{A}_s$ is denoted as follows.

$$\tilde{A}_s = \left\{x, \left(\mu_{\tilde{A}_s}(x), \upsilon_{\tilde{A}_s}(x), \pi_{\tilde{A}_s}(x)\right) | x \in X\right\} \quad (1)$$

where $\tilde{A}_s$ denotes a spherical fuzzy set of the universe X.

$$\mu_{\tilde{A}_s}(x): X \to [0,1], \upsilon_{\tilde{A}_s}(x): X \to [0,1], \pi_{\tilde{A}_s}(x): X \to [0,1], \pi_{\tilde{A}_s}(x): X \to [0,1] \quad (2)$$

$$0 \leq \mu^2_{\tilde{A}_s}(x) + \upsilon^2_{\tilde{A}_s}(x) + \pi^2_{\tilde{A}_s}(x) \leq 1, \forall x \in X \quad (3)$$

where $\mu^2_{\tilde{A}_s}, \upsilon^2_{\tilde{A}_s}$, and $\pi^2_{\tilde{A}_s}$, representing membership, non-membership, and hesitancy degrees, respectively, of each x to $\tilde{A}_s$.

2.5 Developed Spherical Fuzzy AHP Model

Spherical fuzzy AHP will be employed for compromised SK Chairpersons' choices.

After providing the decision makers with the framework and definition of the main criteria and sub-criteria, their preference on the subjects were considered to form a pairwise comparison matrix through a linguistic measurement of importance as shown on Table 2.

Since decision-makers lost interest in deciding between two following linguistic words, the author added mid values to the table. This will emphasize further the intensity of their comparison between criteria.Equations (4) and (5) can be used to calculate score indices for these mid values. The experts were assigned a mid-value when they hesitated between using the linguistic variables High Importance (HI) (0.7, 0.3, 0.2) and Slightly More Importance (SMI) (0.6, 0.4, 0.3). (0.65, 0.35, 0.23). The hierarchy (primary criterion, sub-criteria, and options) applies at all levels.

Table 2. Linguistic measures of importance used for pairwise comparisons

	(μ,	υ,	π)	Score Index (SI)
Absolutely Higher Importance (AHI)	0.9	0.1	0	9.00
	0.85	0.15	0.04	8.00
Very High Importance (VHI)	0.8	0.2	0.1	7.00
	0.75	0.25	0.14	6.00
High Importance (HI)	0.7	0.3	0.2	5.00
	0.65	0.35	0.23	4.00
Slightly More Importance (SMI)	0.6	0.4	0.3	3.00
	0.55	0.45	0.3	2.00
Equally Important (EI)	0.5	0.4	0.4	1.00
	0.45	0.55	0.3	0.50
Slightly Lower Importance (SLI)	0.4	0.6	0.3	0.33
	0.35	0.65	0.23	0.25
Lower Importance (LI)	0.3	0.7	0.2	0.20
	0.25	0.75	0.14	0.17
Very Low Importance (VLI)	0.2	0.8	0.1	0.14
	0.15	0.85	0.04	0.13
Absolutely Lower Importance (ALI)	0.1	0.9	0	0.11

$$SI = \sqrt{\left|100 \times \left[\left(\mu_{\tilde{A}_S} - \pi_{\tilde{A}_S}\right)^2 - \left(\upsilon_{\tilde{A}_S} - \pi_{\tilde{A}_S}\right)^2\right]\right|} \quad (4)$$

$$\frac{1}{SI} = \frac{1}{\sqrt{\left|100 \times \left[\left(\mu_{\tilde{A}_S} - \pi_{\tilde{A}_S}\right)^2 - \left(\upsilon_{\tilde{A}_S} - \pi_{\tilde{A}_S}\right)^2\right]\right|}} \quad (5)$$

Their preference then was recorded as the pairwise comparison matrix for the SFAHP Model.

To verify the consistency of the decision makers on the comparison, a defuzzified matrix consistency checks are frequently employed. The score indices (SI) in Table 2 defuzed the spherical fuzzy numbers, and Equations (6) and (7) determined the Consistency Ratio (CR).

$$CI = \frac{\lambda_{max}}{n-1} \quad (6)$$

$$CR = \frac{CI}{RI} \quad (7)$$

where CI is the consistency index, n is the number of decision criteria, and RI is the random index. Step 4 was taken if the computed CR value was less than 0.1, indicating consistency. The authors guided decision makers to revisit their pairwise comparisons if they were inconsistent.

After considering the consistency of the comparison matrix, the fuzzy local weights of main and sub-criteria and alternatives were determined using the Spherical Weighted Arithmetic Mean (SWAM) operator as in Equation (8) with regard to weights, $w = (w_1, w_2, \ldots, w_3)$ such that $w_i \in [0,1]$, and $\sum_{i=1}^{n} w_i = 1$.

$$SMAW_W(\tilde{A}_{S1}, \ldots, \tilde{A}_{Sn}) = w_1\tilde{A}_{S1} + w_2\tilde{A}_{S2} + \ldots + w_n\tilde{A}_{Sn} = \left\{ \begin{matrix} \left[1 - \prod_{i=1}^{n}\left(1 - \mu_{\tilde{A}_{si}}^2\right)^{w_i}\right]^{\frac{1}{2}}, \prod_{i=1}^{n} \upsilon_{\tilde{A}_{Si}}^{w_i}, \\ \left[\prod_{i=1}^{n}\left(1 - \mu_{\tilde{A}_{si}}^2\right)^{w_i} - \prod_{i=1}^{n}\left(1 - \mu_{\tilde{A}_{si}}^2 - \pi_{\tilde{A}_{si}}^2\right)^{w_i}\right]^{\frac{1}{2}} \end{matrix} \right\} \quad (8)$$

The scoring function (S) defuzzied the spherical fuzzy criteria weights as in Equation (9), and Equation (10) normalized the results to obtain crisp local weights.

$$S\left(\widetilde{w}_j^s\right) = \sqrt{\left|100 \times \left[\left(3\mu_{\tilde{A}_S} - \frac{\pi_{\tilde{A}_S}}{2}\right)^2 - \left(\frac{\upsilon_{\tilde{A}_S}}{2} - \pi_{\tilde{A}_S}\right)^2\right]\right|} \quad (9)$$

$$w_j = \bar{w}_j^s = \frac{s\left(\widetilde{w}_j^s\right)}{\sum_{j=1}^{n} s\left(\widetilde{w}_j^s\right)} \quad (10)$$

Multiplying local weights by main criteria weights yielded global weights for sub-criteria and alternatives.

This process is done to the main criteria, sub-criteria, and alternatives as well to will determine the career management activity that will have the highest influence on SK officials' retention.

4. RESULTS AND DISCUSSION

SK Chairpersons were surveyed to determine the main and sub-criteria weights. The criteria, definition, and evaluation process were explained first. Table 2 linguistic terms were used to create pairwise comparisons. These evaluations were utilized to generate compromised decision matrices, and Methodology analyzed their consistency ratios. Pairwise comparisons were examined if the consistency ratio exceeded 0.10.

The previous method were used to calculate the local and global weights of the criteria. Tables 3 and 4 provide sample pairwise comparisons of both main and sub-criteria, estimated spherical fuzzy and crisp local weights, and consistency ratios.

Table 3. Pairwise comparisons and calculated weights of main criteria

	C1			C2			C3			C4			$\widetilde{w}^s$			$S_{\widetilde{w}_j^s}$	$\bar{w}^s$
C1	0.5	0.4	0.4	0.7	0.8	0.8	0.8	0.5	0.3	0.8	0.3	0.1	0.630	0.354	0.271	17.52	0.313
C2	0.4	0.7	0.2	0.5	0.6	0.6	0.6	0.6	0.3	0.6	0.4	0.3	0.478	0.500	0.319	12.73	0.227
C3	0.5	0.6	0.3	0.6	0.7	0.7	0.7	0.4	0.4	0.7	0.3	0.2	0.579	0.403	0.303	15.83	0.283
C4	0.3	0.8	0.1	0.4	0.5	0.5	0.5	0.7	0.2	0.5	0.4	0.4	0.379	0.596	0.292	9.92	0.177
CR = 0.0295 CONSISTENT																	

Table 4. Pairwise comparisons and local weights of the sub-criteria of leadership and management

	LM1			LM2			LM3			$\widetilde{w}^s$			$\bar{w}^s$
LM1	0.8	0.4	0.6	0.9	0.7	0.9	0.9	0.7	0.8	0.396	0.567	0.303	0.249
LM2	0.5	0.3	0.5	0.8	0.4	0.6	0.6	0.4	0.6	0.612	0.363	0.302	0.404
LM3	0.6	0.4	0.5	0.8	0.6	0.8	0.8	0.4	0.6	0.535	0.438	0.315	0.347
CR = 0.0747 CONSISTENT													

Additionally, pairwise comparisons of alternatives against each sub-criterion yielded spherical and crisp weights. Tables 5 and 6 demonstrate the method numerically. Table 5 compares four alternatives regarding trust to management. Table 6 shows pairwise comparison of four alternatives in terms of supportive
leadership sub-criteria.

Table 5. Pairwise comparisons and weights of alternatives in terms of trust to management sub-criteria

	A1			A2			A3			A4			$\widetilde{w}^s$			$S_{\widetilde{w}_j^s}$	$\overline{w}^s$
A1	0.8	0.4	0.6	0.8	0.6	0.8	0.9	0.7	0.9	0.6	0.4	0.6	0.471	0.509	0.316	12.53	0.224
A2	0.6	0.4	0.6	0.8	0.4	0.6	0.9	0.7	0.8	0.7	0.5	0.6	0.514	0.465	0.318	13.79	0.247
A3	0.5	0.3	0.5	0.6	0.4	0.5	0.8	0.4	0.6	0.4	0.3	0.4	0.665	0.320	0.247	18.70	0.335
A4	0.8	0.6	0.8	0.8	0.6	0.7	0.9	0.8	0.9	0.8	0.4	0.6	0.414	0.561	0.310	10.87	0.194
CR = 0.0973 CONSISTENT																	

Table 6. Pairwise comparisons and weights of alternatives in terms of supportive leadership sub-criteria

	A1			A2			A3			A4			$\widetilde{w}^s$			$S_{\widetilde{w}_j^s}$	$\overline{w}^s$
A1	0.8	0.4	0.6	0.8	0.6	0.8	0.8	0.6	0.7	0.5	0.3	0.5	0.537	0.446	0.304	14.57	0.260
A2	0.6	0.4	0.6	0.8	0.4	0.6	0.6	0.4	0.5	0.4	0.3	0.4	0.640	0.344	0.271	17.82	0.318
A3	0.7	0.5	0.6	0.9	0.7	0.8	0.8	0.4	0.6	0.6	0.4	0.6	0.514	0.465	0.318	13.79	0.246
A4	0.9	0.7	0.9	0.9	0.8	0.9	0.8	0.6	0.8	0.8	0.4	0.6	0.379	0.596	0.292	9.92	0.177
CR = 0.0973 CONSISTENT																	

Table 7 shows that development-oriented career management activities including training, mentorship, and coaching are the most important alternative for SK Chairpersons on. System-oriented career management activities follow. Due to the technicalities and processes of RA 10742's SK System reform, SK Chairpersons were encouraged to play a more active part and be well-versed in decision-making. Improving their skills is one of the essential measures for success. Young talent is dedicated to their professions and other skills-building activities. Career-minded individuals stayed longer. Systematic career management activities serve the same purpose. Future-oriented career management activities likely don't benefit SK Chairpersons because they don't wish to advance in their careers but rather learn and use their technical skills.

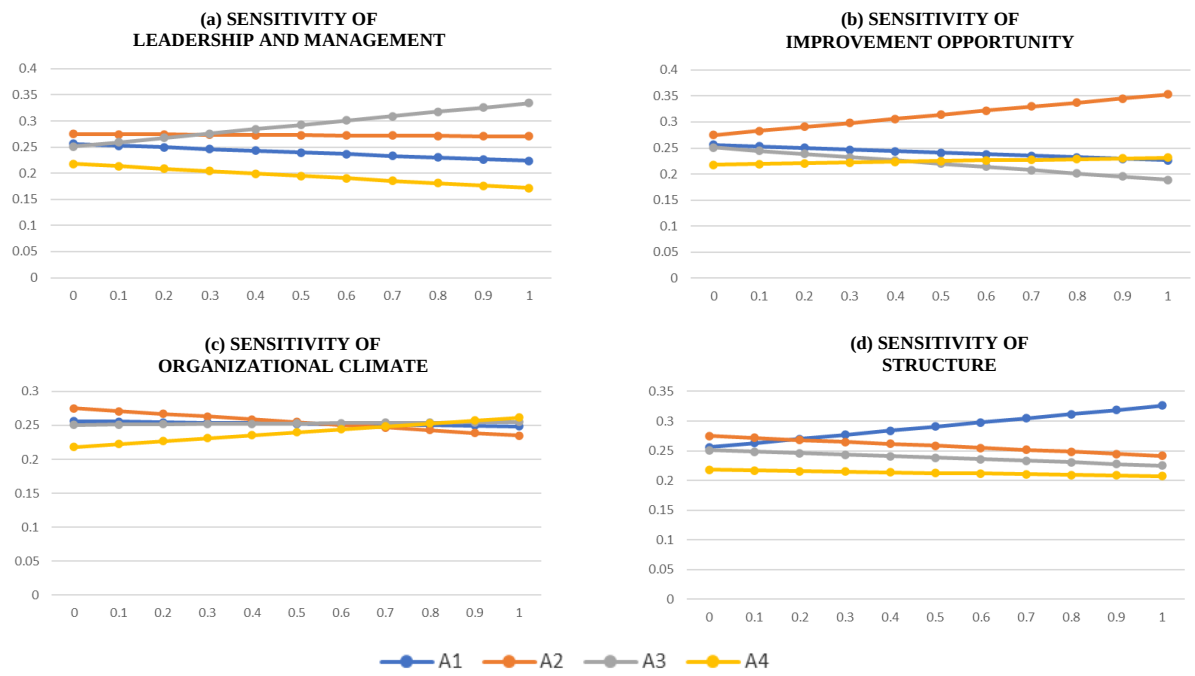
Table 7. Local and global weights of career management activities regarding sub-criteria

Weights of Main criteria		Sub criteria	Global weights of sub criteria	Crisp local weights of career management activities				Crisp global weights of career management activities			
				A1	A2	A3	A4	A1	A2	A3	A4
(C1)	0.313	LM1	0.0780	0.224	0.247	0.335	0.194	0.017	0.019	0.026	0.015
		LM2	0.1264	0.260	0.318	0.246	0.177	0.033	0.040	0.031	0.022
		LM3	0.1086	0.219	0.238	0.358	0.185	0.024	0.026	0.039	0.020
(C2)	0.227	I1	0.0619	0.243	0.329	0.199	0.229	0.015	0.020	0.012	0.014
		I2	0.0873	0.235	0.355	0.184	0.226	0.020	0.031	0.016	0.020
		I3	0.0782	0.240	0.314	0.213	0.233	0.019	0.025	0.017	0.018
(C3)	0.283	OC1	0.0804	0.202	0.232	0.252	0.314	0.016	0.019	0.020	0.025
		OC2	0.0902	0.205	0.320	0.238	0.237	0.018	0.029	0.021	0.021
		OC3	0.1120	0.335	0.195	0.252	0.219	0.038	0.022	0.028	0.024
(C4)	0.177	S1	0.0614	0.314	0.217	0.240	0.229	0.019	0.013	0.015	0.014
		S2	0.0441	0.288	0.288	0.214	0.210	0.013	0.013	0.009	0.009
		S3	0.0715	0.329	0.256	0.220	0.196	0.023	0.018	0.016	0.014
						Overall Weights		**0.256**	**0.275**	**0.251**	**0.218**

The ideal solution's sensitivity is assessed by increasing the main criteria weights from 0 to 1 by 0.1. Other important criteria weights stay proportional. Parts 1.a, 1.b, 1.c, and 1.d in Fig. 2 indicate the sensitivity analysis results of the SK Chairpersons on Urban Barangays for leadership and management (C1), improvement opportunity (C2), organizational climate (C3) and structure (C4), respectively.

This decision is sensitive to the relative weights of the main criteria, as indicated by the sensitivity analysis. In addition, as weights increase, A1, A3, or A4 will surpass A2 as the best option.

Figure 2. Sensitivity analysis of main criteria with respect to different weights



Part (a) of Fig. 2 demonstrates that when the weight of "leadership and management" increases to 0.3, A2 yields the lead to A3. However, in part (b), A2 remains the best option. Part (c) shows that A2 loses the lead to A3 when the weight of "organizational climate" increases to 0.6, whereas A4 will assume the lead at 0.9. Additionally, in part (d) demonstrates that A2 loses the lead to A1 when the weight of "structure" increases to 0.2. Increasing the weight of each main criteria certainly had a significant impact on the order of activities. Therefore, when selecting a career management activity, each of the main criteria must be carefully considered.

5. Conclusion

The Local Government Unit and Municipal Local Government Office monitor Youth Leaders and find ways to keep them in youth programming for longer. Despite annual gatherings, seminars, and training, there are no research supporting management in SK Chairperson retention, which is vital for the federation.

This study offers academics and practitioners a basic career management activity selection methodology to retain SK Chairpersons. This is the first study to propose a systematic methodology to analyze their preferences on a crucial topic for retention and future programs. The suggested model uses Spherical Fuzzy Analytic Hierarchy Process (SFAHP), a unique method that tackles severe vagueness and subjectivity in evaluation processes.

The approach considers leadership and management, improvement opportunity, organizational climate and structure, and their twelve sub-criteria. In a high-tech company, a case study proves the model's viability. The optimal career management activity is chosen from system-oriented, development-oriented, relationship-oriented, and future-oriented alternatives. This ready-to-use approach helps organizations measure career management activity.

Since the Barangay Council's action directly affects SK Chairpersons, leadership and management are the most significant criteria for activity selection. supportive management is the most significant sub-

criterion for leadership and management since administrator assistance directly influences youth leaders' production.

The case study shows that the selected organization prefers development-oriented career management activities like training, mentoring, and coaching. Young talents may need LGU development initiatives to help them succeed in the new system as specified by RA 10742.

As major criteria weights vary, all career management activities have the possibility to be favored by the organization, according to the sensitivity analysis. Alternative selection is sensitive in all criteria.

6. Recommendation

Issues for future investigation include: (1) A similar study can be done in other municipalities or cities to comment on possible differences, (2) interval-spherical fuzzy sets can be modeled and compared, (3) new aggregation algorithms might be developed and used for a comparable problem, and (4) spherical fuzzy extensions of other multi-criteria decision-making methods like VIKOR, TOPSIS, etc. can be applied to the defined problem.

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COMPETING INTERESTS

Authors have declared that no competing interests exist.

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