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Appropriate criteria set for personnel promotion across organizational levels using analytic hierarchy process (AHP)

Charles Noven Castillo[a], France Kevin Degamo[a], Faith Therese Gitgano[a], Louie Alfred Loo[a], Shaira Mae Pacaanas[a], Nika Toroy[a], Lanndon Ocampo[a*], Christine Omela Ocampo[b], Leahlizbeth Sia[a]

[a]School of Management, University of the Philippines Cebu, 6000 Cebu City, Philippines.
[b]Department of Industrial Engineering, University of San Carlos, 6000 Cebu City, Philippines.
[a] *lanndon.ocampo@up.edu.ph*

Abstract: Currently, there has been limited established specific set of criteria for personnel promotion to each level of the organization particularly among retail industries. This study is conducted in order to develop a personnel promotion strategy by identifying specific sets of criteria for each level of the organization. The complexity of identifying the criteria set along with the subjectivity of these criteria require the use of multi-criteria decision-making approach particularly the analytic hierarchy process (AHP). Results show that for first line management, the specific criteria set are: trustworthiness, job involvement, creative and innovative skills, younger generation, and family of businesses. For the middle management, the specific criteria set are: job involvement, creative and innovative skills, trustworthiness, family of business, and education credentialing. And for the top management, the specific criteria set are: strategic and organizational skills, organizational commitment, creative and innovative skills, content specific knowledge and skills, and strategic entrepreneurial connections. These intend also to help avoid mismatch of employee skills and competencies and their job, and at the same time eliminate the issues in personnel promotion such as favoritism, glass ceiling, and gender and physical attractiveness preference. The contribution of this work is in identifying relevant criteria in developing a personnel promotion strategy across organizational levels.

Key words: Personnel promotion, Criteria, AHP, Organizational levels, Retail industry.

1. Introduction

Promotion is a naturally occurring phenomenon in any established organization with hierarchical organizational structure. Personnel promotion represents a changing process in the working place to a new one that requires more competence and qualification skills and bigger responsibilities and offers moral and material satisfaction (Dumitrescu, 1995). However, promoting employees also poses various challenges to the human resource department and to the top management due to the considerable number of the criteria to choose from in evaluating which employee to promote. Furthermore, there were several identified unprofessional workplace practices such as nepotism and favoritism (Arasli and Tumer, 2008), men being favorable over women (Tinkler *et al*., 2015), physical attractiveness (Dion *et al*., 1972), and the typical structure of the internal labor market wherein bottom-rank jobs are entry ports and top rank positions are usually done internally (Kwon and Milgrom, 2014).

Early strategies and models for personnel promotion developed evaluative criteria which are generalized and are not specific to the different levels of the organization - first line management, middle

management, and top management (Kwon and Milgrom, 2014). However, each level of the organization requires different sets of skills, competencies, and capabilities. Thus, each level definitely requires different sets of criteria. With unsuitable criteria for a particular organizational level, employees being promoted might not match the skills, capabilities, and competencies needed for a certain job position. Thus, there is a need to develop a different set of criteria for each organizational level to match appropriately the competencies of employees and their job position.

This study attempts to identify the criteria in personnel promotion to help practitioners such as the selection committee in selecting who among the candidates are best fit for the position. Since each level have different responsibilities, the specific set of criteria for each level allows the firm to identify candidates that have the potential to be promoted to top-level management and those candidates that can best perform on first line management position. Due to the number of criteria and the underlying complexity in the decision-making process brought about by the subjectivity and difficulty in eliciting judgments, a multiple criteria decision-making (MCDM) approach particularly the analytic hierarchy process (AHP) is used in identifying appropriate criteria set for personnel promotion for each level of the organization. AHP was developed by Saaty (1980) to address an MCDM problem that is structured as a hierarchy. Several applications of the AHP have emerged in current literature across various disciplines. For the current developments, theoretical extensions, and applications of the AHP, see the reviews of Vaidya and Kumar (2006), Ho (2008), Sipahi and Timor (2010), Ishizaka and Labib (2011), Subramanian and Ramanathan (2012), Herva and Roca (2013). The contribution of this work lies in identifying general appropriate criteria for each level of an organization.

2. Personnel Promotion Criteria

2.1. Personality/Traits

Employee satisfaction depends, in a large part, on how much individuals like their superiors (Harter *et al*., 2002). Thus, it is important that firms consider the employee's opinions particularly on what the traits they desire in their leaders are, whether direct or top management leaders. Leaders in the workplace also influence the values and actions of followers by setting a personal example of conduct which refers to the process of modelling (Bandura, 1986).

Trustworthy and emotionally intelligent leaders who are capable of leading well are desired by individuals (Nichols and Cottrell, 2014). As followers develop trust in their leaders, they tend to perform better, display more organizational citizenship behaviors (OCBs) and greater organizational commitment, experience greater job satisfaction and have less intent to leave the organization (Dirks and Ferrin, 2002). Interpersonal traits are more desired in low-level leaders than in high-level leaders; whereas dominant traits are more desired in high-level leaders than in low-level leaders (Nichols and Cottrell, 2014).

2.2. Educational Attainment

Profession is defined as having the specific characteristics such as a code of ethics, a service orientation, a body of competency and knowledge, credentials, the backing of a professional society, educational requirements and continuing professional development (Cohen, 2015). Educational credentialing happens in today's workplaces (Baker, 2011; Bills, 2003; Bills and Brown, 2011). Educational credentialing theories explain the processes of how societies allocate individuals to slots in the occupational hierarchy on the basis of their educational achievements. Thus, candidates with better educational achievements have higher chance on being selected and promoted for a job.

The younger generation today are into the pursuit of graduate and post-graduate education in order to heighten the chance of being accepted or promoted in their respective works. Educational credentials, e.g. degrees, diplomas, certificates and licenses, have become major instruments for allocating individuals in the labor market and for serving as job requirements in the occupational structure (Baker, 2011). On the other hand, aging workers (older generation) return to universities to catch up with the younger workers with better educational credentials. In order to keep up with the new generation and maintain the level of relevance *vis-à-vis* the relevance of the young ones, each new generation needs more education to keep up in positional competition (Brown *et al*., 2003).

2.3. Social Capital

More than the quantity of social network is the strength of the ties; that is how strong the connection of the candidate to the executive or high-ranking

official (Kim and Canella, 2008). Thus, CEOs tend to likely choose employees with connections to other people who hold high position in other companies. Thus, employers tend to likely choose employees with connections to other people who hold a high or significant position in other companies. Firms that direct their attention to human and social capital gives more attention to the qualifications and characteristics of candidates that have more strategic entrepreneurial networks (Fernandez and Mabel, 2011).

In family firms, there is a preference of the parting CEO to see a family heir steer the strategic direction of the family firm which might lead to a succession contest whose constrains favor family members (Ahrens *et al*., 2015). With the presence of a son for instance, the current CEO would likely pass on the position to his son over a non-family member candidate even though that candidate has a higher human capital (Dahl and Moretti, 2008).

2.4. Job Satisfaction

Managers all over the world from top to bottom managerial positions have devised various ways to implement mechanisms that promote job satisfaction. Essentially, job satisfaction is one field in industrial psychology that has been widely discussed in current literature (Lu *et al*., 2012). There are three factors on the job satisfaction model: first is the psychological state of employees, then the characteristics of jobs that can create these psychological states and lastly, the attributes of individuals that determine how positively a person will respond to a complex and challenging job (Hackman, 1976). Related to job satisfaction is job involvement which measures the degree to which people identify psychologically with their job and consider their perceived performance level important to self-worth (Robbins and Judge, 2013).

A significant relationship has been identified between job satisfaction and organizational commitment (Umi Narimawati, 2007). Organizational commitment has been identified as critical for organizational success. They consider the firm with which they are working as an extension of themselves rather than just a workplace. Therefore, employees with organizational commitment do a better job because they believe that the organization's success also parallels to their success. Employee engagement is an individual's involvement with, satisfaction with, and enthusiasm for, the work one does (Robbins and Judge, 2013). Thus, employees who are engaged likely enjoy their job and are willing to put extra effort for better job performance.

2.5. Skills and Experience

It is important that a manager possesses the right skill set that would enable him to properly manage and lead the employees. Employers prefer hiring graduates with higher levels of professional expertise-content-specific knowledge and skills needed to solve occupation-specific problems (Humburg and der Velden, 2015). Fresh graduates aiming for entry-level managerial position must possess such skills.

From the employer's perspective, types of skills such as innovative/creative skills and strategic/ organizational skills are more important and better developed after having acquired a few years of work experience (Humburg and van der Velden, 2015). Moreover either task-specific or firm-specific experience contributes to productivity (Chowdhury *et al*., 2014).

The job of a "leader" is one that requires, in general, a higher level of cognitive demands (Fleishman *et al.,* 1991; Mumford, 1986) such that a manager should possess high analytical and cognitive skills as a manager is expected to make wise decision. In the planning skill, managers do not only lead the employees but at the same time involved in the planning process of the firm may it be tactical or strategic (Mumford *et al.,* 2002).

3. Methodology

3.1. Analytic Hierarchy Process

AHP is a powerful MCDM tool especially in hierarchical decision-making where the decision problem is structured into components of different levels. Decision-makers elicit pairwise comparisons, based from their value judgments, of the elements in the same level with respect to an element in higher immediate level. The strength of the AHP is in capturing subjective judgments of decision-makers and integrating them into the decision-making process. The theoretical discussion was presented by Saaty (1980) and a simple tutorial was developed by Dolan *et al.* (1989). Various applications of the AHP have been reported extending from airline industry applications (Garg, 2016; Delbari *et al.,* 2016), healthcare (Yuen, 2014), climate policies (Castello-

Branco *et al.,* 2012) to reverse logistics model (Barker and Zabinsky, 2011), strategy evaluation (Ocampo and Clark, 2015), critical sustainability indicators identification (Ocampo *et al.,* 2015), and sustainable manufacturing index computation (Ocampo, 2015; Ocampo *et al.,* 2016) among several hundreds of applications. For the personnel promotion domain, the earliest adoption of the AHP can be traced back from Saaty and Ramanujam (1983) and the succeeding works were carried out by Taylor *et al.* (2006), Islam and Rasad (2006), Mittal *et al.* (2009) and Bali *et al.* (2015). This development is rather slow when compared to other applications of the AHP.

For the current developments, theoretical extensions, issues and applications of the AHP, see the reviews of Zahedi (1986), Vaidya and Kumar (2006) and Sipahi and Timor (2010) on the overview of applications, Ho (2008) for the integration of other approaches and their applications, Ishizaka and Labib (2011) on its main developments, Subramanian and Ramanathan (2012) for its various applications in operations management, (Schmidt *et al.,* 2015) for healthcare research, Anis and Islam (2015) for applications in higher learning institutions, Chandio *et al.* (2013) on GIS-based integration, Maleki and Zahir (2013) on rank reversal phenomenon issue, and Godinho *et al.* (2011) issues with R&D project selection application, among others.

Generally, the procedure of AHP can be described as follows:

1. Develop the problem structure

Problem structures are developed hierarchically in a top-down approach (Saaty, 1980). Oftentimes, there is an explicit definition and representation of goal, criteria and alternatives. In various cases, criteria are described in more than one level so that further details are explicitly represented in the problem structure. The decision of the inclusion of components and alternatives is usually carried out either through a critical review of literature or through an expert or group of experts who have sufficient knowledge and experience of the problem under consideration. Decision components and elements are usually a combination of both objective and subjective ones with measurements in different multiple dimensions.

2. Eliciting judgment in paired comparisons

Pairwise comparisons of elements in the same level with respect to an element in the immediate higher level are carried out with expert decision-makers. The generic question in making pairwise comparisons goes like this: "Given a parent element and given a pair of elements, how much more does a given member of the pair dominate other member of the pair with respect to a parent element?" (Promentilla *et al.*, 2006). To achieve a uni-dimensional scaling property of the pairwise comparisons, Saaty (1980) established the famous Saaty fundamental 9-point ratio scale as shown in Table 1.

Suppose that a_{ij}^{k} represents the decision of k^{th} decision-maker on the influence of element i on j. To aggregate individual judgments, Saaty (1980) proposed the weighted geometric mean method (WGMM) as shown in (1):

$$a_{ij} = \prod_{k} (a_{ij}^{k})^{\alpha_k} \tag{1}$$

wihere a_{ij} is the aggregated judgment, α_k is the decision-maker's importance to the decision making process with $\alpha_k > 0$ and $\sum_k \alpha_k = 1$. The values of a_{ij} $\forall i,j$ form the pairwise comparisons matrix.

In pairwise comparisons, reciprocity is maintained. Priority vectors (w) are obtained from the pairwise comparison matrix (A) by solving an eigenvalue problem in the following equation:

Table 1. Saaty fundamental scale.

Rating Scale	Definition	Explanation
1	Equal importance	Two elements contribute equally to the objective
2	Weak	Between equal and moderate
3	Moderate importance	Experience and judgment slightly favor one element over another
4	Moderate plus	Between moderate and strong
5	Strong importance	Experience and judgment strongly favor one element over another
6	Strong plus	Between strong and very strong
7	Very strong or demonstrated importance	An element is favored very strongly over another; its dominance demonstrated in practice
8	Very, very strong	Between very strong and extreme
9	Extreme importance	The evidence favoring one element over another is one of the highest possible order or affirmation

$$Aw = \lambda_{\max} w \quad (2)$$

where λ_{max} is the maximum eigenvalue of the positive reciprocal square matrix (A). The approach also provides a way to measure the consistency of judgments in the pairwise comparison matrix. When decision-making in the pairwise comparisons matrix is consistent $\lambda_{max}=n$; otherwise, $\lambda_{max}>n$ where n is the number of elements being compared. The Consistency Index (CI), as a measure of degree of consistency, was calculated using the formula

$$CI=(\lambda_{max}-n)/(n-1) \quad (3)$$

The consistency ratio (CR) is computed as

$$CR=CI/RI \quad (4)$$

where RI is the mean random consistency. Acceptable CR values must be less than 0.1. Decision-makers were asked to repeat the pairwise comparisons for CR values greater than 0.1.

3. Synthesizing judgments

Saaty (1980) described that synthesizing judgments in AHP is done by weighting the elements being compared in the lower level component to an element in the next immediate level component, referred to as the parent element, by the priority of that element and adding all parents for each element in the lower level. This is referred to as the distributive mode of the AHP. This can be represented in the form for two levels in a hierarchy

$$W^T=X_3^T(X_2^T I)(X_1^T I) \quad (5)$$

where W is is the global (synthesized) weight vector of the elements in the lowest (or third level in this case), X_3 is the local priority vector of the third level elements (the lowest level), X_2 is the local priority vector of the second level elements, X_1 is the local priority vector of the first level elements, and I is an identity matrix.

3.2. Decision Model

This study aims to develop a promotion strategy consisting the priority of each criteria used for promotion. With this, the goal is to identify the criteria set for first line management, middle management and top management. From the review of related literature on this field, the problem structure presented in Figure 1 was then developed.

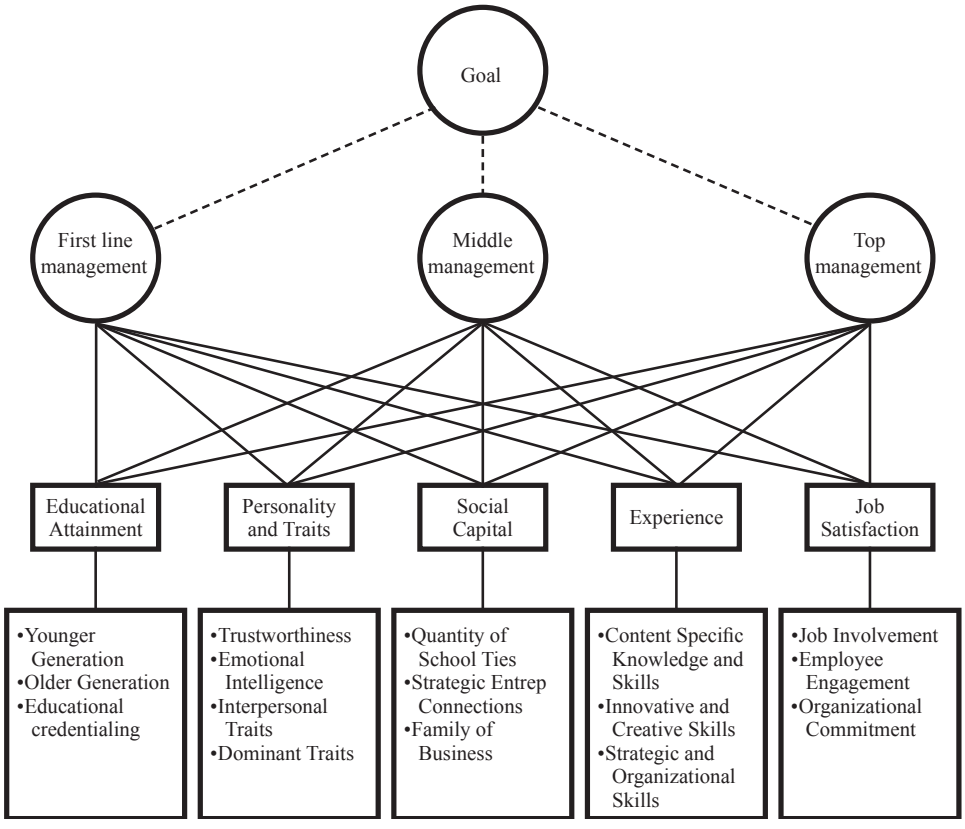

Figure 1. Criteria identification decision model.

The levels of management are independent with each other which explains the broken lines between the main goal and the levels of management. This means that the selection of criteria set is done for each management level. The promotion strategy in each goal is derived from the pool of criteria; this explains the segments from the each goal to each of the criteria. For instance, the criteria set for the first line management promotion is selected from the pool of criteria which consists of personality/ traits, educational attainment, social capital, skills and experience, and job satisfaction as discussed in Section 2. The sub-criteria for each criterion are compared pairwise against each other to determine the ranking within each criterion. For instance younger generation, older generation and educational credentialing are compared against each other to determine which one ranks the highest with respect to educational attainment. The list of criteria and their corresponding sub-criteria set is shown in Table 2.

Due to the hierarchical nature of the decision-making problem and the presence of multiple criteria, AHP is considered to be the most appropriate MCDM method. The mutual exclusiveness of the criteria indicates that the set of criteria used to determine a certain level of management does not affect the set of criteria for another level of management. The existence of several criteria in personnel promotion makes MCDM a relevant approach in selecting the most appropriate criteria for each organizational level. The decision structure could likewise aid in addressing the negative issues affecting personnel promotion hence it is able to generate a standardized set of criteria.

4. Results and Discussion

Table 3 to Table 5 show the aggregate pairwise comparison matrix of the first line, middle and top management, respectively. These aggregate matrices were computed using Equation 1 with α_k=1/K. The priority vector or weight vector was computed using Equation 2. The consistency ratio (CR), computed using Equation 4, is also shown in each Table. The rank of each criterion based on its priority vector provides a way in determining what particular significant criterion for each level of the organization. The prioritization of the sub-criteria for their parent criterion was also performed using the same process. A total of 180 pairwise comparisons were conducted in order to come up with the aggregated weights of the different main criteria and sub-criteria for all levels of management.

Table 2. Coding of the criteria and sub-criteria.

Decision Criteria	Decision Sub-Criteria	Code
Educational attainment		C1
	young generation	C1.1
	older generation	C1.2
	educational credentialing	C1.3
Personality and traits		C2
	trustworthiness	C2.1
	emotional intelligence	C2.2
	interpersonal traits	C2.3
	dominant traits	C2.4
Social capital		C3
	quantity of school ties	C3.1
	quality of school ties	C3.2
	strategic entrepreneurial connections	C3.3
	family of businesses	C3.4
Experience		C4
	content specific knowledge and skills	C4.1
	creative and innovative skills	C4.2
	strategic and organizational skills	C4.3
Job satisfaction		C5
	job involvement	C5.1
	employee engagement	C5.2
	organizational commitment	C5.3

Table 3. Aggregate pairwise comparison of the main criteria for the first line management.

Goal	C1	C2	C3	C4	C5	Priority Vector
C1	1.00	0.38	0.78	0.39	0.32	0.09
C2	2.60	1.00	4.20	1.94	1.11	0.33
C3	1.28	0.24	1.00	0.39	0.31	0.09
C4	2.53	0.52	2.55	1.00	0.70	0.20
C5	3.12	0.90	3.25	1.43	1.00	0.29
CR = 0.012						

The aggregate judgment of the respondents for the first line management placed personality and traits as the major consideration in promoting personnel for the first line management. As seen in Table 3, personality and traits criterion is more important than any other criteria with respect to first line management. Moreover, the respondents were consistent in their judgment given that the CR=0.012, which is within the acceptable range for CRs.

Table 4. Aggregate pairwise comparison of the main criteria for the middle management.

Goal	C1	C2	C3	C4	C5	Priority Vector
C1	1.00	0.71	0.80	0.41	0.37	0.11
C2	1.41	1.00	1.31	0.62	0.51	0.16
C3	1.25	0.76	1.00	0.26	0.39	0.11
C4	2.42	1.62	3.80	1.00	0.88	0.31
C5	2.67	1.94	2.58	1.13	1.00	0.31
CR = 0.010						

Table 4 shows the aggregate judgment of the respondents with respect to the middle management promotion where experience and skills and job satisfaction were closely prioritized by the respondents. With a weight of 0.31 respectively, these two criteria sufficiently supplement the necessary human and conceptual skills needed for the middle management post. At the same time, the remaining three criteria were also closely prioritized by the respondents.

However, there is a wide gap between the first two criterion and the last three ones. Middle management has to engage in departmental or divisional decisions, experience and organizational commitment play vital roles in managing the department. This indicates that experience with the technical nature of the job and the necessary organization and job commitment to the organization are two important criteria that are required of a manager wanting to be or is ready to be promoted to the middle management post. The rest of the criteria are, despite the weights, still necessary in being a manager for the middle management. Personality and traits are necessary in order to handle and manage employees well. Following personality and traits, educational attainment and social capital are equally important. In this level of management, and most of the time, applicants for middle management see the promotable employees as equal in terms of educational attainment because most firms require educational attainment at first entry. The challenge to look beyond educational credentials such as personality and traits or job satisfaction is one of the many things that is difficult to view on paper. Just like the judgment for the first line management, respondents were also consistent in their decision-making with regards to the ranking of criteria with a consistency ratio of 0.01.

Table 5. Aggregate pairwise comparison of the main criteria for the top management.

Goal	C1	C2	C3	C4	C5	Priority Vector
C1	1.00	0.83	0.36	0.17	0.55	0.08
C2	1.21	1.00	0.73	0.18	0.66	0.10
C3	2.76	1.37	1.00	0.45	0.70	0.17
C4	5.77	5.50	2.22	1.00	2.70	0.47
C5	1.83	1.51	1.43	0.37	1.00	0.18
CR = 0.015						

Table 5 shows the weight vector for the criteria set with experience and skills as arguably the topmost consideration in promoting personnel to top management. The top management is responsible in driving the firm towards the realization of its managerial goals, corporate mission and its long-term vision. Therefore at this stage, high conceptual skill is extremely needed in order to properly and correctly manage the firm. Results show that experience and skills are the paramount considerations in promoting towards top management as well as an employee must have top level business skills and significantly sufficient experience not only with the firm but as well as the familiarization with the industry that the business is in. With weight equal to 0.47, top management personnel needs to have the experience and the skills in order to make sound decisions and fair judgment especially during times when they are highly needed.

It is also important to note that the rest of the criteria have weights close to each other at 0.18, 0.17 and 0.08. This indicates that to be a top management personnel, one has to have equal or sufficient amount of job satisfaction, social capital, personality and traits and educational attainment. The aggregate judgment of the respondents is consistent with a CR value of 0.015.

Table 6 shows the final weights of each sub-criterion with respect to the weights of the main criteria for the first line management.

Table 6. Final weights of the sub-criteria of the first line management.

Sub-criteria	Final Weights	Rank
Young generation	0.04	11
Older generation	0.03	12
Educational credentialing	0.02	16
Trustworthiness	0.13	1
Emotional intelligence	0.08	5
Interpersonal traits	0.07	7
Dominant traits	0.04	10
Quantity of school ties	0.01	17
Quality of school ties	0.02	15
Strategic entrepreneurial connections	0.03	14
Family of businesses	0.03	13
Content specific knowledge and skills	0.05	8
Creative and innovative skills	0.10	3
Strategic and organizational skills	0.05	9
Job involvement	0.11	2
Employee engagement	0.08	6
Organizational commitment	0.10	4

For the first line management, managers tend to promote employees that show trustworthiness, job involvement, and creative and innovative skills. In this level, customer and supplier interaction is observed. First line managers are usually those that are in the grass roots, are those who communicate with the clients and suppliers, and know the situation of the processes, methods, and procedures. They are also responsible in overseeing first line technical employees. With this, results show that trustworthiness is one of the most coveted trait that are being looked in promoting to first level of management. Companies need to have a set of managers who are trustworthy for the employees and customers alike.

Employees promoted to this level need to exhibit job involvement or on to how he identifies himself with his job. It might take months, or even years, to promote a technical employee into a managerial post but that length of time is sufficient in order to determine if the employee fully identifies himself with his job. With this, first level managers would know the nature of the work and tasks given to technical employees and will be able to manage or supervise them effectively.

Contrary to the literature which states that first line managers should exhibit content-specific knowledge and skills to supervise employees better, the results show that creative and innovative skills are one of the top criterion that an employee must possess in order to get the first level management post. More often than not, first level managers master already the technical skills that sometimes, human skills are needed to manage people under the manager properly. Table 7 shows the final weights of each sub-criterion with respect to the weights of the main criteria for the middle management.

Table 7. Final weights of the sub-criteria of the middle management.

Sub-criteria	Final Weights	Rank
Young generation	0.02	16
Older generation	0.06	7
Educational credentialing	0.04	11
Trustworthiness	0.07	6
Emotional intelligence	0.03	13
Interpersonal traits	0.03	12
Dominant traits	0.02	15
Quantity of school ties	0.01	17
Quality of school ties	0.02	14
Strategic entrepreneurial connections	0.04	10
Family of businesses	0.04	9
Content specific knowledge and skills	0.04	8
Creative and innovative skills	0.10	3
Strategic and organizational skills	0.16	1
Job involvement	0.08	5
Employee engagement	0.09	4
Organizational commitment	0.14	2

For the middle management, results show that strategic and organizational skills are a must for first line managers who will be promoted to the next level of management, the middle management. Middle managers are the set of people that serve as the bridge of the first line technical employees and managers, and the top management. These are the people who conduct departmental or division-level decision-making. With that, results show that these managers should possess strategic and organizational skills which are needed to fill-in the gap between the first line management and the top management.

Closely important with strategic and organizational skills, organizational commitment must also be present in first line managers who would be promoted to middle management. This would entail a significant number of years into the company, significant amount of corporate targets achieved, and a positive feedback from evaluations. And not far from the organizational commitment is creative and innovative skill. Middle management must have a balance of technical, human and conceptual skills in order to perform the role properly. With this mix, innovating the role as middle manager is required in order to effectively and efficiently do the tasks.

The criteria are closely related in terms of the weight because of the nature of the job. It is important to note the complexity of the job of middle managers who need not only show technical skills, but human and strategic skills as well. Topping this level is strategic and organizational skill which is 'conceptual in nature', organizational commitment which is a must for every manager in the middle level, creative and innovative skills which is 'technical' nature and is required for a first level manager as above mentioned. Table 8 shows the final weights of each sub-criterion with respect to the weights of the main criteria for the top management.

Table 8. Final weights of the sub-criteria of the top management.

Sub-criteria	Final Weights	Rank
young generation	0.01	15
older generation	0.03	10
educational credentialing	0.04	9
trustworthiness	0.04	8
emotional intelligence	0.03	12
interpersonal traits	0.02	14
dominant traits	0.01	16
quantity of school ties	0.01	17
quality of school ties	0.02	13
strategic entrepreneurial connections	0.07	5
family of businesses	0.06	6
content specific knowledge and skills	0.08	4
creative and innovative skills	0.09	3
strategic and organizational skills	0.29	1
job involvement	0.05	7
employee engagement	0.03	11
organizational commitment	0.09	2

Consistent with the literature, top management requires heavily the conceptual skills and strategic thinking from a manager. In this level of management, the strategic direction and intent of the company in the short and long term is formulated. Reports from different departments and/or division are being utilized to come up with a strategy needed to stir the company to success and away from irrelevance and obsolescence. Compared to middle management, the need for a top level manager to have strategic and organizational skills is substantially important. At a significant rise from 16% (middle management) to 29%, the requirement of a strategic mindset to promote to a post in top level management is thus required. Figure 2 shows the disparity in the required level of strategic and organizational skills between middle and top management.

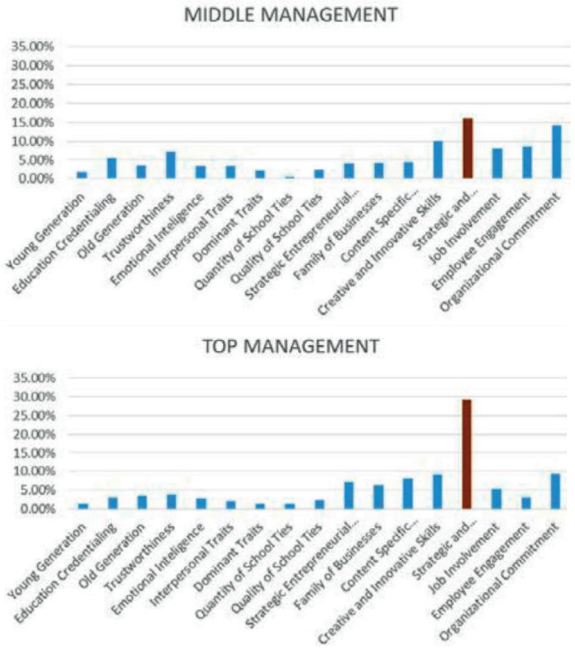

Figure 2. Disparity of the weights in strategic and organizational skills.

As mentioned from the literature, top level managers need to have high conceptual skills as what the results also display. Organizational commitment and creative and innovative skills are two criteria that are equally important for top level management, following the need for strategic thinking. It can also be observed that other criteria (including the organizational commitment and creative and innovative skills) have weights that are below 10%. The results show that other criteria are already expected from a top level manager (as proven by how he has managed to be promoted at this level) which explains why the percentages are closely equal and the corresponding criteria closely important. Moreover, the results show the high need to think strategically which illustrates the overly high percentage that strategic and organizational skills got.

5. Conclusion

This paper explored the various criteria and sub-criteria that must be considered for personnel promotion for each management level in an organization. With the use of the AHP, results of this work confirm that different mix of criteria make up for the criteria set specific for a particular management level. Results show that for first line management, the specific criteria set are: trustworthiness, job involvement, creative and innovative skills, younger generation, and family of businesses. For the middle management, the specific criteria set are: job involvement, creative and innovative skills, trustworthiness, family of business, and education credentialing. And for the top management, the specific criteria set are: strategic and organizational skills, organizational commitment, creative and innovative skills, content specific knowledge and skills, and strategic entrepreneurial connections.

In general, this work shows that personality and traits, job satisfaction and experience and skills are more critical rather than social capital across different management levels. This implied that selection and promotion committees must focus more on selecting employees that have the right capabilities for the job rather than those that are sponsored by social connections. The insights of this study would help aid human resource managers in general and promotion committees in particular in their promotion decision processes. Furthermore, results of this study are beneficial for human resource practitioners in developing trainings and other relevant support infrastructures for each management level in enhancing required skills that are required for promotion.

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