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AHP MODEL FOR LEADERSHIP IN HIDDEN CHAMPION ORGANIZATIONS

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Abstract — *Most of the difficulties that organizations face in this composite and active world are multi-criteria. Multi-criteria decision-making (MCDM) is quickly rising field of the dicpline of operations research (OR) that agreements with creation a choice when there are numerous principles which in greatest cases are contradictory. Since the central driver of success of hidden champion administrations is management, in this newspaper we have absorbed on that aspect. The purpose of the paper is to develop a MCDM model, i.e. analytic hierarchy process (AHP) model for the leadership in hidden winner organizations by seeing two main sizes: the separate leadership and the social nature of leadership and disintegrating those two dimentions on numerous main issues. The developed AHP model could help to leaders of those administrations in order to lead better and donate to the succes of hidden winners.*

Keywords : AHP model, hidden champion organizations, leadership, multi-criteria decision making

INTRODUCTION

What is common for Walmart, ExxonMobil, Berkshire Hathaway, Apple, UnitedHealth Group, McKesson, CVS Health, Amazon.com, AT&T, and General Motors? These corporation giants are separately, the top 10, from Fortune 500 in 2018 (Fortune 500, 2018). Formerly, for numerous republics

the drivers of the monetary growth are minor and medium-sized dealings that income optimistic structures labelled by Herman Simon (1996) and they are well-known as concealed champ industries. A dominant motorist for managerial attainment of hidden victors is their management.

This providing answer to the query of why peoples work calm and how, whether it's a startup, a slight business or a Wealth 500 company.

Sutherland and Purg (2013) slow management in unseen winner managements from two points that are united: the distinct organization and the social landscape of organization (communityship).

The founders-leaders of concealed victors by their robust vision and wish have documented governments that are world bests in the trades in which they purpose.

"An collection deprived of clear vision is alike a river deprived of banks - it worsens and energies nowhere." (Blanchard et al. 2001, p. 173)

But similarly, the achievement of these administrations is due to the skill of their founders-leaders, i.e. all of them have a tall grade of expert information that is increased from study, exercises and repetition. The incessant speculation in themselves and the request of the learnt knowledge and knowledge permits these bests to see the marketplace probabilities that are hidden for others. And here raises the question: how lengthy does one leader important to have this part in a unseen winner association? The durability of the leader is extra key essential of the achievement of these organizations. But, they indispensable to texture when the right time is for this portion to be occupied by somebody who has more relevant info and skills for productive management.

Vision, passion, expert information and continuousness are four significant points of the exact management, while the communal countryside of leadership highlights the member location, customer location and complete communityship.

The business strength be armed in the most contemporary way, but the employee is the one who should turn on the computer, follow the trends, whose potential and creativity should be gaping and used, who needs to be appreciated and toward be invested in. The company's largest competitive advantage is the intellectual capital.

The crops and facilities that the trades offer should be shaped in contract with the needs of the customers, which is the model of understand-respond. From their feedback, the gathering can study valued teachings and convalesce.

Community-oriented bests want to make improvement for all, i.e. for themselves, their staffs, and wider investors.

In the paper, a model for management in hidden winner managements has been industrialized, taking into explanation the separate leadership and the social countryside of the management, which will allow the bests of these administrations to make better selections for their productive working in the approaching.

In adding to the outline assumed in Section 1, Section 2 mentions to the practice. This section briefly clarifies multi-criteria decision-making, with exact care to the method logical ladder procedure. Section 3 gifts and clarifies the industrialized AHP model for management in concealed winners, and Section 4 gives the deduction.

METHODOLOGY

2.1 Multi-criteria decision making (MCDM) and the Analytic hierarchy process (AHP)

At the emotion of the punishment of operations research (OR) / organization science (MS), also known as the science of healthier, is data, so the query that is modelled here is how to get from data to material that will be valued to those foremost the governments. By emerging a model for the actual problem state and smearing the most suitable OR method, a best or best answer is provided, serving as a reference to the bests of governments in creation healthier choices.

Maximum of the OR methods permit resolving problems whose aim is to find the finest answer in relative to one standard (Anderson et al. 2012), but greatest of the real glitches include more than one standard.

Masud and Ravindran (2008) clarify that once it refers to a executive problem with one standard, the best answer is clear in terms of an best answer for which the worth of the impartial purpose is either minimalized or exploited, and when seeing manifold criteria that are most often contradictory, typically there is no term best answer, so determining in a multi-criteria problematic is typically about selecting the best cooperation to the answer.

Multi-criteria choice creation is one of the greatest significant and fastest rising field in operationsresearch. It mentions to making a choice when there are numerous standards which are

greatest often contradictory amongst each further (for example, quality and price (the client requires higher quality for a lower price)), for additional material, see Triantaphyllou (2000). Koksalan et al. (2011) provided a thorough review of MCDM from its initial antiquity up to date. A literature review on MCDM methods and their request was complete by Mardani et al. (2015). They comprised 393 papers available in more than 120 global peer-reviewed periodicals on the Web of Science database in the period 2000-2014. Rendering to the incidence of the request of decision making methods (AHP, ELECTRE, DEMATEL, PROMETHEE, TOPSIS, ANP, VIKOR, etc.), the unique that is the greatest used is AHP (128 papers) (Cvetkoska and Savic 2017).

Once from numerous replacements there wants to be made a excellent of one that is the finest, or to rank replacements, taking into explanation numerous measures on the foundation of which the replacements are assessed, one of the greatest usually used MCDM approaches is AHP.

Thomas L. Saaty industrialized the logical ladder procedure in the late seventies of the XX period (Saaty 1977, 1980). The analytic hierarchy process allows the complex MCDM problem to be decomposed in the following components: goal, criteria, sub-criteria (if any) and alternatives, so that they are represented hierarchically. Fig. 1 shows a general AHP model. Once the hierarchical model is developed, its constituent elements are compared in pairs. According to cognitive psychologists, people make two kinds of comparisons: absolute and relative comparisons - in the first type of comparisons, alternatives are compared with a standard, while comparative comparisons happen when in pairs replacements are compared according to the attribute which is common to them, and the AHP method can also be used for absolute and relative comparisons (Saaty and Vargas 1994).

The decision-maker should compare in pairs the elements at each level of the hierarchical structure and express their preferences using the fundamental scale of Saaty (Table 1). At one level there need to be 7 ± 2 elements (Triantaphyllou and Mann 1995). The amount of the weights of the elements at each level of the hierarchical structure should be 1 and a mathematical model wants to be used to calculate the weights of the criteria and the priorities of the alternatives. Details can be originate in Saaty (2006, pp. 228-230). The application of the AHP method can be explained in four steps that are given in Cvetkoska and Begicevic-Redzep (2016, pp. 343-344).
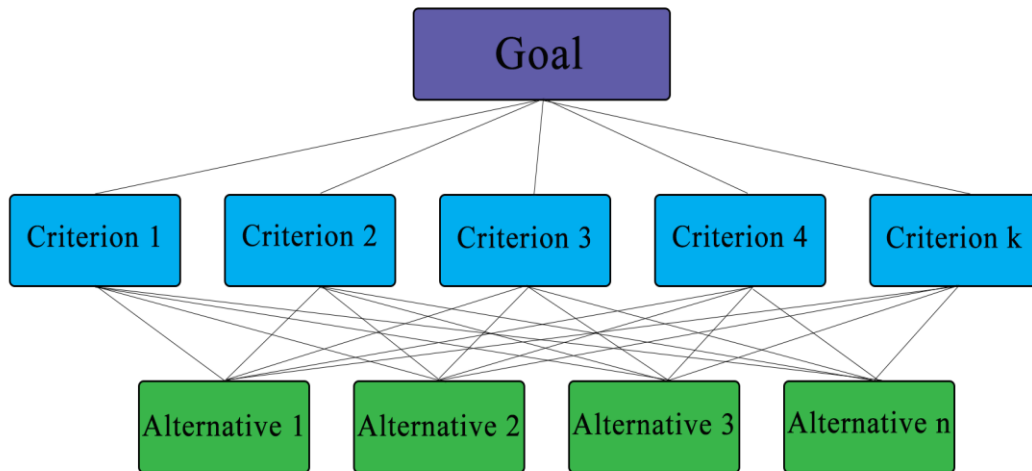
Fig. 1: General AHP Model

Table 1: The Fundamental Scale (Saaty and Vargas 2012, p. 6)

Intensity of importance	Definition	Explanation
1	Equal importance	Two activities contribute equally to the objective
2	Weak	
3	Moderate importance	Experience and judgment slightly favor one activity over another
4	Moderate plus	

5	Strong importance	Experience and judgment strongly favor one activity over another
6	Strong plus	
7	Very strong or demonstrated importance	An activity is favored very strongly over another; its dominance demonstrated in practice
8	Very, very strong	
9	Extreme importance	The evidence favoring one activity over another is of the highest possible order of affirmation
Reciprocals of above	If activity i has one of the above non-zero numbers assigned to it when compared with activity j, then j has the reciprocal value when compared with i	A reasonable assumption
Rationals	Ratios arising from the scale	If consistency were to be forced by obtaining n numerical values to span the matrix

The analytic hierarchy process allows to monitor whether the decision-maker was consistent in pairwise contrasts of the elements of the hierarchy by computing the Consistency Index (CI):

$$CI = \frac{\lambda_{max} - n}{n - 1}$$

where n represents a number of criteria, i.e. alternatives, and λ_{max} is the largest eigenvalue of matrix A (matrix of pairwise comparisons).

The consistency index allows for the Consistency Ratio (CR) to be measured:

$$CI = \frac{CI}{RI}$$

where RI is a random index (its values are given in Table 2). An inconsistency that is not greater than 10%, i.e. CR ≤ 0.10 is accepted. In circumstance when the discrepancy is advanced, the decision-maker should study the pairwise contrasts.

Table 2: Random Index (RI) Values (Saaty 2006, p. 229)

n	Random Index (RI)
1	0
2	0
3	0.52
4	0.89
5	1.11
6	1.25
7	1.35
8	1.40
9	1.45
10	1.49

Advantages of using the AHP method are (Cvetkoska 2013, p. 55): it allows structuring the executive problem and simulating the decision-making process; in decision-making AHP integrates both quantitative and qualitative factors; if the decision-maker in their estimates when comparing the elements of the hierarchy in pairs was inconsistent, AHP will identify the inconsistency and point to it; in group decision-making it helps the discussion to be structured as well as to reach consensus; it enables the knowledge about the particular problem to increase, and it also motivates the decision-maker quickly; the obtained consequences contain the rank of the alternatives, but it is important that we can obtain information on the masses of the criteria relative to the highest level of the hierarchy - the goal (if subcriteria are included, information about their weights in relation to criteria will be obtained); enables for a sensitivity analysis to be done, and for its support quality softwares (Expert Choice, Super Decisions and Decision Lens) have been developed.

Also the advantages of using this multi-criteria method, there are several disadvantages (Cvetkoska 2013, p. 55): in some problems of decision-making the important gage of Saaty is not large

enough to compare elements in pairs; most of the problems require a large number of pairwise contrasts; it often happens to be quite difficult to achieve an acceptable CR; and here can not be considered incomparable alternatives. For how to overcome the last disadvantage, see Saaty (2006, p. 225).

AHP can be applied to solve a number of problems such as (Saaty and Vargas 1991, p. 16): setting priorities; generating a set of alternatives; choosing the best alternative to politics; determining requirements; resource allocation; predicting results (time dependency) - risk assessment; perforemcee measurement; designing system, ensuring system stability; optimization; planning; conflict resolution, etc.

For the application of the analytic hierarchy process, Vaidya and Kumar (2006) have complete a works review. Also, the AHP method can be integrated with other approaches , and it can also live as their supportacne. A view of the application of the AHP Method with other methods has been made by Ho (2008).

3. AHP model for leadership in hidden champion organizations

Management in hidden champion administrations can be cautious an MCDM difficult that can be rotten into: dimensions, issues (criteria) and sub-factors (sub-criteria). In instruction to switch the position of separate rudiments that are mostly of a qualitative countryside, AHP is selected as the utmost appropriate method.

The basics of the multi-criteria model (AHP) are founded on Sutherland and Purg (2013) and they are:

- Goal: management in hidden champion organizations;
- Issues (criteria): issues of the measurement: distinct leadership: vision, passion, know-how and steadiness; and issues of the measurement: social countryside of management: member-orientation, customer-orientation and rounded public ship;
- Sub-factors of the member-orientation issue: respect, asset and ethos.

The hierarchy for organization in hidden champion organizations is drown in Fig. 2.

This AHP model is general and it can be applied by all leader of a hidden champion organization in the following method: first the two dimensions essential to be related in couples with respect to the goal, and to determine which one is more important by assigning the appropriate intensity of importance from the fundamental scale of Saaty.

Then the factors are compared in couples relative to the individual dimensions and sub-factors in relation to the factor, and the softwares: Expert Choice, Super Decision, Decision Lens can be used to solve the model. The results are weights of dimensions, factors, sub-factors, by which they might be ranked from the highest to the lowest value, which proves what apiece of the bests of the concealed winner governments stresses.
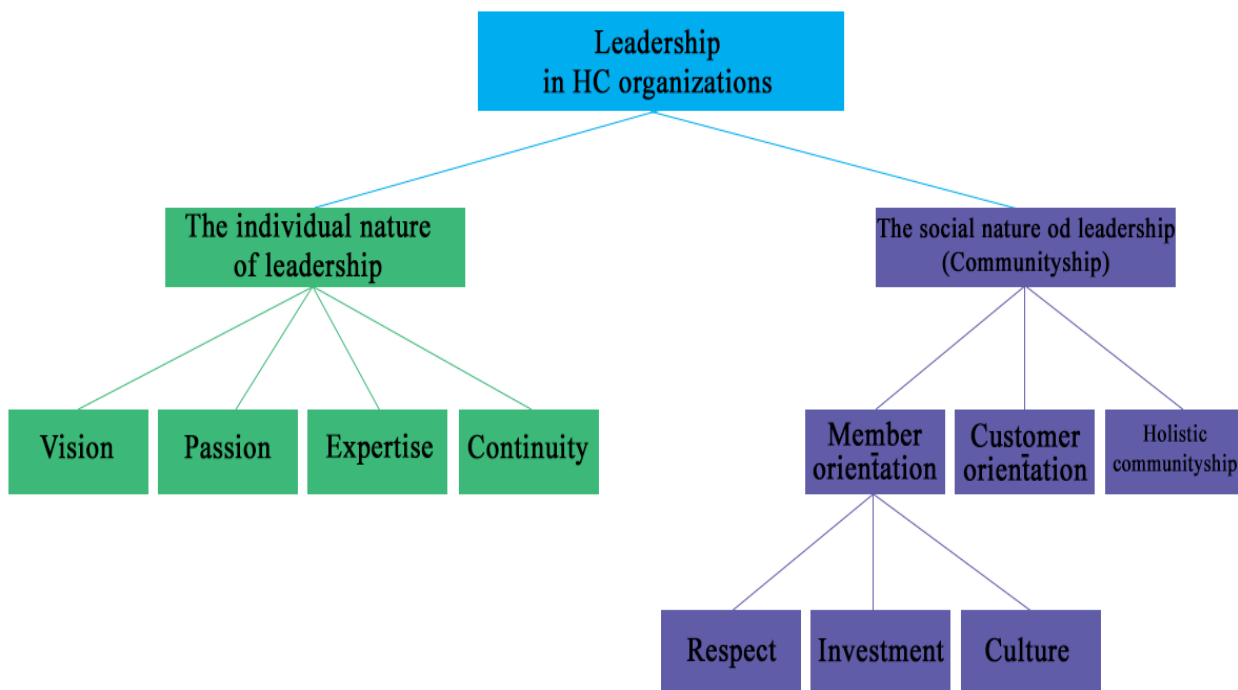
Fig. 2: Hierarchy for Leadership in Hidden Champion Organizations

CONCLUSION

"Situation an instance is not the chief means of swaying others, it is the lone income" – Albert Einstein

Leadership is set on the pedestal for the success of the hidden champions. The founders-leaders of these companies with one eye should look into the present, while with the other in the future, and be prepared to face all the problems and challenges in order to enable their companies' survival in the long term and their continuous development. Their vision, passion, expert knowledge and longevity, as well as the orientation towards communites make the mosaic of successful leadership and write the future of the organization. According to Peter Drucker: "What's measured improves", so in that direction, good measurement and interpretation of results can particularly help leaders in making better decisions about their organizations.The proposed multi-criteria model will enable the leaders of hidden champions to face the real state of leadership and take concrete steps to improve it. I believe that this approach should become a practice in each of these organizations, which can be further used in the field

of innovation, financial aspects, resource allocation, etc. In our future reserach we plan to apply the developed AHP model in identified hidden champion organizations in one developing country, i.e. North Macedonia and to present the findings.

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