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ASSESSMENT OF FACTORS AFFECTING EMPOWERMENT OF HUMAN RESOURCES USING ANALYTICAL HIERARCHY PROCESS

Hamid Reza Moosavi and Maryam Moradi[1]
[1] *College of Human Science, Islamic Azad University – Neyshabur - Iran*
*Author for Correspondence

ABSTRACT
In the view of management, empowering human resources is an incredible tool for leading employers to improve organization efficiency. This study aims to suggest some practical strategies by taking advantage of Analytical Hierarchy Process (AHP) method, comparing effectiveness and evaluating contribution of the factors.
With regard to above mentioned aim, a questionnaire has been written and sent for 50 experts in managing and academic position. Six important considered factors in the questionnaire are as following: Namely formality and clearness; Working environment; Recognition and appreciation; Morale and organizational affiliations; Job enrichment and job development; Operating partnership and teamwork.
Results shows that the 'enrichment and development of job' and 'recognition and clearness' made greatest contribution (34.5% and 19.3%, respectively) while 'operating partnership and teamwork' and 'morale and organizational affiliations' has lowest contributions shear (7.5% and 5.3%, respectively).Therefore, as a sub factor 'training' were identified as the most important criterion with 29.4% of contribution.
Finally, by analyzing the obtains results of experts responds, it is strongly suggested to managers to give more priority for training, reducing stress in workplace, improving job content and simplification of tasks.

Keywords: Empowerment, Human Resources, Hierarchical Analysis Process, Percentage Contribution

INTRODUCTION
Empowering human resources is an essential management tool which can be used to guide staff to increase efficiency. In order to successfully implementing the empowerment, changing the organizational culture is needed. Importance of human resources is not a secret and organizations need capable and creative human resources to survive in the complex and challenging environments. An employee has a potential talent that empowerment help it to be realized. Certainly, in all ages, human resources have always been considered as the most important factor to achieve development (Rajaeipor et al., 2007). In the present era in which the man have reached great achievements in the field of science and technology, in spite of technology's role in achieving economic and industrial development, not only the importance of human resources is not diminished but also paying attention to the issue of human resources as a creator and user of technology is a necessity. The proper use of human resources as the most important and the greatest wealth of any society is considered by managers as an important issue. In other words we can say that man is not only the target of developments but also responsible for it. Achieving the development goals considerably depends on the administration and management of this vital resource. Empowerment as a concept has a great impact on the efficiency and effectiveness of the organization and its implementation can help employees to obtain more flexibility in control of their tasks (Salehizadeh, 2006). The concept drew the attention of many experts for the first time in 1990. Considering the complexity of the concept of Human resources empowerment, different definitions are proposed by experts in different periods. One of the most famous definitions is the assignment of authorities to non-executives to make decisions, or assignment of authorities to staff (Wagner and Holing, 1995). Empowerment is a process through which the culture of staff is developed and the objectives, boundaries and attempts will be shared throughout the organization (Fox, 1998).
Three important strategies for empowering employees are enhancing the knowledge, training skills and problem-solving and resources mobilization training. When employees take responsibility for their own

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problems, they are prone to try to improve their personal and organizational lives. In the case of problem solving skills, it is necessary for staff to increase their capacity in this issue. Problem solving skills can empower employees at the individual level and group level as a necessity to establish a favorable position. Training support and resource mobilization can be performed by the establishment of large-format empowered community structures (Chadi et al, 2004). Studies show that empowering subordinates is an important part of management skills and organizational effectiveness (Congreve and Kanangv 1988). Empowerment is a psychological concept that is related to the feelings and beliefs of individuals to their jobs and organizations, and is defined as the process of increasing the intrinsic motivation (Treaty Jsry, 2011).Empowering is a new and effective technique for improving organizational effectiveness through the use of the staffs' ability. Employees have an intrinsic power because of their knowledge, experience and motivation and in fact empowering is the process of releasing this power. This technique provides potential chance to use the human ability, and suggests a balanced manner between complete controls of the organization and complete freedom. In the empowerment issue, several questions are proposed: how is the managerial and organizational environment for employees? Is it possible for employees to propose their ideas and thoughts? Is the selection of employees performed according to their competencies and qualifications? Is the system of reward and punishment fair? How much is the participation rate in the organization? To what extent managers provide attractive environment for work? Today, the advantage of organizations is not to outshine each other in applying the new technology, but in high confidence and level of employee commitment to organizational objectives. To pass the various stages, organizations must adapt themselves to different situations and learn new techniques. So, they should identify factors that help them develop the work environment. In the new organizations, employees are responsible not only for the task, but also to improve the overall performance of their organization. They continue cooperating with each other to enhance the performance of their organization. Recent studies show the need for human empowerment in organizations in addition to abovementioned parameters. Studies show that six factors namely Formality and clearness, working environment, recognition and appreciation, morale and organizational affiliations, job enrichment and job development and operating partnership and teamwork greatly affect the empowerment of human resources in organizations. This study was carried out to assess the importance or contribution of factors affecting the empowerment of human resources. Also the process, requirements, principles and strategies are described in order to achieve a successful empowerment program.

MATERIALS AND METHODS
In the present study six factors namely Formality and clearness, working environment, recognition and appreciation, morale and organizational affiliations, job enrichment and job development and operating partnership and teamwork were examined. Formality and clearness is theclearness of communication between managers and staff and the knowledge of staff about the current state in their works. It includes the following sub-factors: clarifying the objectives, the responsibilities, extent of authority, availability of information and clearness of organizational workflow. Working environment includes the importance to the health and safety of employees in the workplace, creating opportunities for job improvement, reduction of stress in the workplace and includes the following sub-factors: importance to the safety of staff, importance to the health of staff, creating opportunities for job improvement and reduction of stress in the workplace. Recognition and appreciation is the proportionality of salary and bonuses received by employees with what they do, proper distribution of facilities and fitness of job promotion with the staff competency. It includes proportionality of salary and bonuses received by employees with what they do, proper distribution of facilities and fitness of job promotion with the staff competency. Morale and organizational affiliations include respect to employees and help them resolve personal problems, providing chance for innovation and creativity and to ensure that employees tend to perform duties. It involves creating the appropriate context for invention, innovation and creativity, creating an atmosphere of positive attitudes among employees, creating a friendly working relationship and trust between employees and managers.

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Job enrichment and job improvement is the updating of technical and professional information of employees and increase their job content and to achieve suitable alternatives. It includes the following sub-factors: improving job content, training, providing alternatives, documentation, modifications of methods and simplification. Operating partnership and teamwork is defined as the use of feedbacks and ideas from employees in decision making, cooperating to improve and promote the performance of organization, delegation of authority to staff at different levels participating staff in affairs being conducted toward the goal. It includes the following sub-factors: using staff feedback, delegation of authority to staff and paying attention to their suggestions. In this study, the factors affecting human resources empowerment were prioritized using analytical hierarchy process (AHP). In this way, standard questionnaire and Expert Choice software were used. Recently, multiple criteria decision-making methods (MADM) are increasingly used in the decision making processes. Among these methods, the analytic hierarchy process (AHP) is used more than others, in the management science. AHP is one of the most well-known techniques in decision making process. It was proposed for the first time by Iraqi-born Thomas L. Saaty in the 1970s. AHP reflects the natural behavior and human thinking. This technique assesses complex problems based on the interactions between factors and simplifies them and then solves the problem. The general structure of this method is shown in Figure 1 (Mehregan, 2004).A total number of 50 pairwise comparison questionnaires were sent to the experts, managers and academics and then analyzed. Table 1 shows the scoring process in AHP.

Table 1: Pairwise Comparison Scale

Explanation	Intensity of importance
Extremely Preferred	9
Very Strongly Preferred	7
Strongly Preferred	5
Moderately Preferred	3
Equally Preferred	1
Used to represent compromise between the priorities listed above	2, 4, 6, 8

Expert Choice software, were then used to analyze the results of abovementioned questionnaires. In this software, pairwise comparisons between the mentioned factors and final scoring are performed to prioritize the affecting factors and sub-factors. In order to rank the affecting factors, the relative weight of each element was multiplied by the weight of above elements.As the AHP method is based on the preliminary judgment of experts, an inconsistency in the comparisons will affect the final results obtained from the calculations (Ghodsipoor, 2002). An inconsistency ratio larger than 0.1 indicates that a pairwise comparison matrix has a level of inconsistency that is unacceptable.

RESULTS
Table 2 shows the prioritization and the final weights of the main six factors i.e. formality and clearness, working environment, recognition and appreciation, morale and organizational affiliations, job enrichment and job development and operating partnership and teamwork. As it is understandable from this table, job enrichment and job development is the most important factor with a relative weight of 0.345 and morale and organizational affiliations is the least important factor among the main criteria with a relative weight of 0.053. Inconsistency ratio of 0.06 in the table indicates the acceptable consistency of the pairwise comparisons.

Table 2: Contribution percentage of the main factors

Factor	weight	Graph
job enrichment and development	0.345	
formality and clearness	0.193	
recognition and appreciation	0.172	
working environment	0.162	
operating partnership and teamwork	0.075	
morale and organizational affiliations	0.053	

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Table 3 shows the prioritization and the final weights of the sub-factors of formality and clearness i.e., clarifying the objectives, the responsibilities, extent of authority, availability of information and clearness of organizational workflow. As it is shown in this table, clarifying the objectives is the most important sub-factor with a relative weight of 0.309 and clearness of organizational workflow is the least important sub-factor among the sub-factors of formality and clearness factor with a relative weight of 0.102. Inconsistency ratio is 0.07 in this case which is acceptable.

Table 3: Contribution percentage of the sub-factors of formality and clearness

Factor	weight	Graph
clarifying the objectives	0.309	
extent of authority	0.290	
the responsibilities	0.157	
availability of information	0.142	
clearness of workflow	0.102	

Table 4 shows the prioritization and the final weights of the sub-factors of the working environment i.e., importance to the safety of staff, importance to the health of staff, creating opportunities for job improvement and reduction of stress in the workplace. As it is shown in this table, reduction of stress in the workplace has the most contribution (with a relative weight of 0.595) and creating opportunities for job improvement has the least contribution (with a relative weight of 0.086). Inconsistency ratio of 0.0 in the table indicates the acceptable consistency of the pairwise comparisons.

Table 4: Contribution percentage of the sub-factors of working environment

Factor	weight	Graph
reduction of stress in the workplace	0.595	
importance to the safety of staff	0.159	
importance to the health of staff	0.159	
creating opportunities for job improvement	0.086	

Table 5 shows the prioritization and the final weights of the sub-factors of the recognition and appreciation factor i.e., proportion of salary, proportionality of bonuses received by employees with what they do, proper distribution of facilities and fitness of job promotion with the staff competency. Proportion of salary with a relative weight of 0.449 is the most important sub-factor and proper distribution of facilities with a relative weight of 0.075 is the least important sub-factor and the inconsistency ratio is 0.05 in this case.

Table 5: Contribution percentage of the sub-factors of recognition and appreciation

Factor	weight	Graph
Proportionality of salary	0.449	
fitness of job promotion with the staff competency	0.317	
Proportionality of bonuses received by employees with what they do	0.159	
distribution of facilities	0.075	

Table 6 shows the prioritization and the final weights of the sub-factors of the morale and organizational affiliations i.e., creating the appropriate context for invention, innovation and creativity, creating an atmosphere of positive attitudes among employees, creating a friendly working relationship and trust between employees and managers. It is shown that creating an atmosphere of positive attitudes among employees has the most contribution (with a weight of 0.480) and creating trust between employees and managers has the least contribution (with a weight of 0.063). The inconsistency ratio is 0.03 in this case.

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Table 6: Contribution percentage of the sub-factors of morale and organizational affiliations

Factor	weight	Graph
creating an atmosphere of positive attitudes among employees	0.480	
creating a friendly working relationship	0.277	
creating the appropriate context for invention, innovation and creativity	0.180	
creating trust between employees and managers	0.063	

Table 7 shows the prioritization and the final weights of the sub-factors of the job enrichment and job development factor i.e., improving job content, training, providing alternatives, documentation, modifications of methods and simplification. As it is understandable from this table, training is the most important factor with a relative weight of 0.294 and providing alternatives is the least important factor with a relative weight of 0.045. The inconsistency ratio is 0.03 in this case.

Table 7: Contribution percentage of the sub-factors of job enrichment and job development

Factor	Weight	Graph
training	0.294	
improving job content	0.272	
simplification	0.250	
modifications of methods	0.063	
documentation	0.048	
providing alternatives	0.045	

Table 8 shows the prioritization and the final weights of the sub-factors of the operating partnership and teamwork i.e., using staff feedback, delegation of authority to staff and paying attention to their suggestions. It is shown that delegation of authority to staff with a relative weight of 0.75 is the most important sub-factor and paying attention to staff suggestions with a relative weight of 0.045 is the least important sub-factor and the inconsistency ratio is 0.0.

Table 8: Contribution percentage of the sub-factors of operating partnership and teamwork

Factor	Weight	Graph
delegation of authority to staff	0.750	
using staff feedback	0.125	
paying attention to staff suggestions	0.125	

After determining the relative weight of each factor and its sub-factors the total final weights have been calculated (table 9). As is shown in this table, training, reducing stress in the workplace, improving job content and simplification are the most important sub-factors with the final weights of 0.101, 0.097, 0.094 and 0.086, respectively and creating the appropriate context for invention, innovation and creativity, using staff feedbacks, paying attention to staff suggestions and trust between employees and managers are the least important sub-factors with the final weights of 0.009, 0.009, 0.009 and 0.003, respectively. Inconsistency ratio of 0.05 shows the consistency of comparisons.

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Table 9: Contribution percentage of all sub-factors

Factor	weight	Graph
Training	0.101	
Reducing stress in the workplace	0.097	
Improving job content	0.094	
simplification	0.086	
proportionality of salary	0.077	
clarifying the objectives	0.060	
delegation of authority	0.057	
extent of authority	0.056	
fitness of job promotion with the staff competency	0.055	
modifications of methods	0.031	
responsibilities	0.030	
availability of information	0.027	
proportionality of salary and bonuses received by employees with what they do	0.027	
importance to the safety of staff	0.026	
importance to the health of staff	0.026	
creating an atmosphere of positive attitudes	0.025	
clearness of organizational workflow	0.020	
documentation	0.016	
providing alternatives	0.016	
creating a friendly working relationship	0.015	
creating opportunities for job improvement	0.014	
proper distribution of facilities	0.013	
creating the appropriate context for invention, innovation and creativity	0.009	
using staff feedbacks	0.009	
paying attention to staff suggestions	0.009	
trust between employees and managers	0.003	

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DISCUSSION AND CONCLUSION

With regard to numerous studies, there is no doubt that there is a strong need to empower human resources. However, in order to empower human resources we need basic infrastructure and appropriate environment. Empowerment process is difficult and time consuming. It also requires spending a lot of money. In organizations that the affecting factors are controlled, we can be sure that the human resources are used properly. Few researches have been conducted on the assessment of factors affecting empowerment process. However, there are some studies with which our results are in consistence. The contribution percentages and prioritizations proposed in this study can be used in better planning and use of human resources in organizations.Therefore, it is strongly recommended that organizations pay attention to empowerment of human resources in the following order: job enrichment and development, formality and clearness, recognition and appreciation, working environment, operating partnership and teamwork, morale and organizational affiliations.In addition the prioritization of sub-factors is as shown in table 9 which can help organizations planning and scheduling. It should be noted that training, reducing stress in the workplace, improving job content and simplification with the final weights of 0.101, 0.097, 0.094 and 0.086, are the most important sub-factors, respectively.

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