International Academic Institute for Science and Technology

International Academic Journal of Science and Engineering
Vol. 3, No. 1, 2016, pp. 53-62.
ISSN 2454-3896

International Academic Journal of Science and Engineering

www.iaiest.com

Non-isotropic composite pipe analysis with simulation of circular hollow composite beams using the Monte Carlo method

Mohsen Yeganeh [a]

[a]*Master of Civil Engineering Geotechnical, Islamic Azad University of Central Tehran*

Abstract

This study represents simulation of hollow circular composite beam by using Monte Carlo method. A three dimensional static analysis of large displacement type has been carried out. Finite element analysis of hollow circular composite structure has been carried out and uncertainty in Maximum Deflection is analyzed. Maximum Deflection was objective function. Beam length, beam radius, elasticmodulus, shear modulus and Poisson ratio of epoxy graphitein XY,YZ,XZ, ply angles of hollow circular section and force are randomly varied within effective range and their effect on Maximum Deflection has been analyzed. In order to validate the results, one loop of simulation is benchmarked from results in literature. Ultimately, best set of probabilistic design variable is proposed to reduce Maximum Deflection under static loading condition. Composite materials have found increasing use in aerospace and civil engineering construction. One of the common areas of application is panels and hollow circulars construction where composite materials with complex lay-ups are used. The hollow composite properties can be improved when composite materials are used.

Keywords: Talent Management, Attract, Retain, Development, Discovery, Employees Performance

Introduction:

Like any other organizations, banks face many changes through the history. Based on their situation the banks should try for stability and surviving and should use new methods of marketing and construction. Moreover during the last decade because financial section has faced many changes it has caused low development and high competition. In this situation the trust between the customers and staffs will decrease and all Banks are trying to have this significant relation between their customers and staffs and it will be possible only by noticing staffs' performance and increasing man power.

Staffs' performance affect on the performance and activities of Organizations. The performance of employees means the results of done activities in an organization. The standard or benchmark key is performance prediction in the context of the present. This framework is a factor for analyzing groups, organizations and people. The Oxford English Dictionary as "to run the application, do not define anything ordered or committed. The researchers want to know what factors affect on organizational performance. One factor affects on staffs' performance is talent management of the organization.

Recent researches show that many organizations cope with lack of hardworking staffs. Sparrow and Hill Trap (1999) by growing problems related to the lack of talent in many European countries have concluded that in the twenty-first century people who need a wide range of skills and abilities needed to deal with the needs of the companies have been predicted. Big companies all over the world try to catch the talents by competing with other organizations. So the organizations should have the ability for Identifying talented individuals, providing them with the necessary training and maintenance of valuable personnel. Nowadays the researches show that talent management is a scientific major but its effectiveness.

This study is going to talk about the effect of talent management on performance of staffs of Refah Kargaran bank. The results of this study will give experts and manager's clues and needed info for managing the talent of the staff and finally their performance.

Theoretical basis of research:

Talent management

Studying the literature of talent management gives us different definitions of it.it means strategic management in an organization. Purpose of ensuring a good supply of talent for matching the right people with the right jobs at the right time is based on the organization's strategic goals.

Some say it includes all the talent management, human resources, management and technology. Talent management generally refers to the exploration, discovery, selection, maintenance, development and improvement, utilization of workforce restructuring. Another group of researchers argue that better talent management as a set of issues to be considered. It is used as a point of view or mental attitude towards this perspective. a perspective talent management believes that talented people play a key role in the success of the organization. Talent management is a strategic management that is the systematic identification of key positions in which these posts are the key to sustainable competitive advantage.

Storage capacity of the organization to fill key positions of responsibility is the responsibility of this type of management.

Talent management ensures that there are good people with the right skills in the right place of business in order to achieve the expected goals of the organization.

Attracting talents: attracting talent includes all issues related to the recognition of a set of high-level skills for the jobs needed by the organization.

Discovering talents: it's the process of discovering talented staff among the qualified candidates that will be able to do their jobs the best.

Development and improvement of talents: Huy (2009, quoted by farmers and shepherds Khalili, 2010, p. 11) states that the development and improvement of skills in the application of advanced and appropriate talents. The staffs will catch needed info to supply business needs in the future.

Protection of talents: Subsystem to maintain the talent management system with the goal of which is to help people to actually convert all its power. They suggest that these subsystems are connected directly to compensation. Most people are motivated by pleasure through the use of talents and gain points.

Staffs' performance

The stability of activities of organizations depends on the performance of the staffs.
Armestrang defined performance as"To achieve the quality and quantity is determined". Oxford English encyclopedia defines it as "Run, exercise, doing everything ordered or committed". In addition, in connection with the definition of outcomes and outputs, but also show that the performance of the work and the result. Therefore, the performance can be considered as behavior. The term higher performance and efficiency of a system refers to the process of a system. It is Performance of activities that have to be done and the results of those activities. When employees feel that some of the decision making on how their performance is unreasonable and unfair does not increase the level of commitment and motivation for them to continue. It is also likely to reduce their level of productivity.

Bramach (1988, cited in Armstrong, 2007, p. 12), had a more comprehensive view of the head, which includes the behavior and performance results. He argues that "the meaning of behaviors and outcomes. Behavior and performance factors are derived from the idea to convert ". Behaviors not only the means to achieve the results are not, but are in turn a consequence. Attempts of organizations are to improve performance and discover hidden talents among staffs. They can also deal with the problems raised in crisis and prepare for the administration.

Research Background

Nopasand Asil et al in a study named "studying the relation between talent management and organizational performance have concluded Among the activities related to talent management and quality of service and innovation in the provision of services, there is a significant relationship and The

necessary measures in order to retain talent in the organization has the most impact on the quality of services and Attracting top talent to the most impact on organizational innovation is increasing.

Taleghani et al in a study named"Examine the relationship between talent management and performance of faculty members of Isfahan University" concluded that Talent management strategy, a significantly positive effect on the performance of faculty members of the University and Promote talent management strategy will improve the performance of employees.

Hossein Mehravani et al has studied the Effect of implementation of talent management on organizational performance (studied in Gilan PMO) and showed Management of talent - talent, retention of management, career development, retention and performance of financial and non-financial organizations, there is a significant positive correlation.

Haj nabi et al has studied"Relationship between talent management and performance of nursing staff in Karaj". Between employee performance and talent management in government hospitals, there is a significant relationship. With the joint efforts of managers and nursing staff and giving more responsibility to the Department of Human Resources, will be the most positive consequences of the behavior and performance of employees created.

(Swim, 2009) in his doctoral dissertation, with mixed methods research in the service of a company in the United States, to evaluate talent management systems and to make the commitment of staff. Results of semi-structured interviews showed how the human resource management and organizational development can protect and enhance their talent management system.

Ayd Muelhi has studied "The effects of the adoption of ICT on the performance of companies in the manufacturing sector in Tunisia» and concluded Strong positive relationship between the use of ICT is efficiency. The results showed that the combination of ICT and human capital increases the efficiency of enterprises.

Research methodology

The population, sample and sampling

The population of this research is all staffs of different branches of Refah Kargaran Bank of Tehran. There were 1333 people in this population and the sample was 298 people that we chose them based on Kokaran sampling formula. For sampling after estimate the sample size the simple random sampling was used.

Research tools

The instrument used in this study, talent management is a standard questionnaire developed by Philips and Roper (2009). The questionnaire based on Likert scale of 5 animals (from very high to very low) is designed. The absorption of the discovery, development and improvement, talent retention is examined.

The second test used in this study, a standard questionnaire performance Achyv (Hersey and Goldsmith, 2003) is that seven of the incentives, credit assessment, environment, help, clarity and the ability to examine. Questionnaire based on Likert scale (very low to very high -5 -1) is graded.

In this study, Cronbach's alpha was used to assess the reliability of the instrument. Therefore, it's an initial sample of 30 pre-test questionnaires. Then, using data obtained from the questionnaires and statistical software Spss the reliability of the questionnaire, talent management, 0.76 and for the staff, 0.94 estimated.

The Analysis of Data

We have used Descriptive statistics and inferential statistics such as single variable regression and single variable t-test, Friedman for analyzing data.

Research Findings

First hypothesis: talent management affects on employees' performance different branches of Refah Kargaran bank of Tehran.

Table 1: Single Variable Analysis of the Potential Impact on Staffs of Refah Kargaran Bank Branches

P	T	Beta	B	Dependent variable	Independent variable
0.000	15.089	0.659	0.561	Staffs' performance	Talent management

As can be seen in the table above, talent management, employee performance significantly positive effect of bank branches in Tehran welfare workers is(0.659 = β).Talent management, bank branches increased welfare workers in Tehran, leading to improved performance of employees.

Second Hypothesis: talent management of the staffs of Refah Kargaran Bank of Tehran has a suitable situation.

Table 2: Comparison of the Mean Current Status Talent Management Staffs of Refah Kargaran Bank Branches With Average Criterion (3)

P	Freedom degree	T	SD	Average	Component
3.34	0.626	9.25	297	0.000	Talent management

According to Table 2, the mean talent management, welfare workers, bank branches in Tehran, is 3.34. T calculated from the t table is larger. Thus, the present status of talent management, which is above average, is statistically significant.

Third hypothesis: Performance of the staffs of Refah Kargaran Bank of Tehran has a suitable situation.

Table 3: Comparison of the Average Performance of the Staffs Of Refah Kargaran Bank Branches With Average Criterion (3)

P	Freedom degree	T	SD	Average	Component
3.05	0.533	2.65	297	0.000	Staffs' performance

According to Table 3 the yield of Bank staff welfare workers in Tehran, is 3.05. T calculated from the t table is larger. Thus, the present status of employee performance is above average which is statistically significant.

The fourth hypothesis: each of talent management (attracting talent, talent discovery, development and improvement of talent and keeping talent) on the performance of bank branches in Tehran affects the welfare of the workers.

Table 4: Single Variable Regression Effect of the Talent Management of Personnel of Refah Kargaran Bank Branches in Tehran

p	T	Beta	Dependant variable	Staffs' performance	Independent variable
0.000	11.151	0.544	0.385	Staffs' performance	Talent attraction
0.000	9.962	0.50	0.32	Staffs' performance	Discovering talents
0.000	13.860	0.627	0.485	Staffs' performance	Development and improvement of talent
0.000	8.517	0.444	0.288	Staffs' performance	Retention of talent

Each of talent management (attracting talent (0.38= β), discover talents (0.32= β), talent development and improvement (0.48= β) and keeping talent (0.28= β)) on the performance of bank branches in Tehran, welfare workers and there is a significant positive effect. This effect is significant at the alpha level 0.01. Due to the positive regression coefficient, it can be said that the increase in bank branches talent management domains of welfare workers in Tehran, leading to improved performance of employees.

The fifth hypothesis: dimensions of talent management of staffs of different branches of Refah Kargaran bank have priorities.

Table 5: Ranking Of Different Aspects of Talent Management at Refah Kargaran Bank

Sig		DF	Priorities	Average rating	Variables
0.000	133.446	3	Second	2.51	Attracting talent
0.000	133.446	3	First	3.18	Discover talents
0.000	133.446	3	Third	2.28	Development and improvement of talent
0.000	133.446	3	Fourth	2.04	Retention of talent

Ranking statements regarding the prioritization of different aspects of talent management at Bank welfare workers, respectively, discover talent, talent recruitment, development and retention of talent is talent and Rehabilitation.

Conclusion:

There is a significant positive relationship between the effects of talent management of staffs in different branches of Refah Kargaran Bank. In the context of the present results with the results of teaching and colleagues (2012) matched. Talent management strategy has a significantly positive effect on the performance of its faculty members. The research findings match with Mehravani H. (2011).

Between talent management talents, retention of management, career development, retention and performance of the financial and non-financial organizations, there is a significant positive correlation. The study findings Nabil Hajj et al (2011) also matched the relationship between talent management and employee performance in public hospitals. Using talent management will ensure that each employee, with special talents and abilities will be put to good work. Talent management as a management tool, due to employee empowerment and a kind of flexibility is ensured in accordance with the changing market conditions. Due to the fact that talent management is a part of human resource management focuses on talent agency. More detailed and more directly on the management of a particular group of individuals' .the right people in the right roles is an important tool for integrating activities and goals of the organization. Another finding of this study is that talent management of the staffs of Refah Kargaran Bank is desirable. T value observed in the (α =0.01) is significant. Thus, the null hypothesis that the lack of difference between the samples mean and mean exclusion fitted. The research team concluded that the current situation in the company's talent management was assessed well. The Bank of Tehran welfare workers, managers, talent management process some respect. The managers in the staff selection process try to take advantage of those who have sufficient knowledge and ability to be an expert.

Other results showed that the performance of bank branches in Tehran welfare workers is desirable. T value observed at the surface (α =0.01) is significant. Thus, the present status of employee performance is above average which is statistically significant. Other results showed that the performance of different

aspects of talent management of employees of Refah Kargaran bank branches in Tehran. The results are in correlation with the findings of Taleghani et al (2012) .talent management strategy, has a significantly positive effect on the performance of its faculty members. The research results are in correlation with findings of Mehravani H. (2011) there is a positive and significant relationship among talent management, retention of management, career development, retention and performance of financial and non-financial organizations.

If the mangers of Refah Kargaran Bank try to attract good and suitable employees, the will set the suitable condition for attracting experts and professional staffs. Attracting different experts can not only replace old manpower with new ones but also it can be suitable for development. With the combination of programs and options business planning and employment tools, managers can actively support talent attraction. Talent management system, database information available to date suggests topic this enables banks too quickly and easily identify and talents needed .Therefore, the discovery potential of such functions integrated talent management are keys to being effective if it leads. If there is a good and suitable system in different branches of Refah Kargaran bank to identify professional and talented people, of course the people will enter the organization that can do their responsibilities the best and will have better performance.

Practical suggestions:

The results have shown that talent attraction affects on the staffs of Refah Kargaran Bank. So we have some suggestions as bellow:

the staffs of Refah Kargaran Bank must develop and implement talent management and development of organizational culture based on their attention.

The directors of the Bank's strategic orientations, objectives and action plans should discuss the exact timing for the implementation of talent management and talent, special attention.

The results have shown that talents discoveries affects on the staffs of Refah Kargaran Bank. So we have suggestions as bellow:

By implementing the process of discovering talent and appropriate approach to source selection using internal / external the bank tries to find the distance between talents that we have and the talents which will be needed in the future. Then, talents and competencies required for the implementation of the Bank's business strategy was determined.

The results have shown that talent development and improvement affects on the staffs of Refah Kargaran Bank. So we have some suggestions as bellow:

Active manpower needs teaching and gaining technology. So for using knowledge and talents of people it will be better to set a condition for their participation and giving their ideas.

The results have shown that talent protection affects on the staffs of Refah Kargaran Bank. So we have some suggestions as bellow:

To maintain and retain talent, motivating non-monetary rewards to be used. Also its suggested to use systems like Scholarships abroad, resorts suitable locations inside and outside the country, encouraging pilgrimage holidays, Ben commodity specific brands, through education costs for children who are vulnerable to top.

References:

Afjeiee, Ali Akbar (2007). Behavior in Organizations letter. Journal of Economics and Management, No. 74. Pp. 20-31.

Armstrong, Michael (2007). Performance management, basic strategies and practical guidelines. Translation N. Mirsepasi and Asmaly Kavoosi. Tehran / a cashmere publications.

Ayed M and Rim, B (2009). Impact of the adoption of information and communication technologies on firm efficiency in the Tunisian manufacturing sector, Economic Modelling, 26, 961-967.

Collings, D. G. & Mellahi, K. (2009). Strategic talent management: A review and research agenda. Human Resource Management Review, 19, 304 - 313.

December, just as a scholar, M. (2007). A review of methods for evaluating the performance of the insurance subsidiaries, Insurance Industry Quarterly, 22 (2): 123-152.

Duttagupta, R. (2005): Identifying and managing your assets: Talent management, PricewaterhouseCoopers, London.

Hajy¬Nby, Cameron, President, P. and oven, Nrgs¬Alsadat (2013). Talent management relationship with the nursing staff in hospitals in the city of Karaj, Health Information Management, 10 (7): 469-472.

Hayati, AN, Ghaffari, H, Shams, M (2015). Analysis of free-surface effects on swimming by the application of the computational fluid dynamics method. Proceedings of the Institution of Mechanical Engineers, Part P: Journal of Sports Engineering and Technology, 1754337115598488.

Lawler, E. E, (2008). Choosing the Right Talent Management Strategy. Workspan, 51 (7): 65-81.

McCauley, C & Wakefield. M. (2006). Talent Management in the 21st Century: Help your Company Find, Develop and Keep its Strongest Workers. The Journal for Qualify and Participation, 29 (4): 1-18.

Mehravani Hussain, M. (2011). Effect of implementation of talent management on organizational performance (PMO studied in Gilan province), MSc Thesis, Faculty of Humanities, University of Guilan.

Mobini, M. (2006). Work, talent and education, life magazine, saying, 30: 110- 115.

Moderator, Fatah and Hamoudi, J. (2006). The relationship between creativity managers improve employee performance in the oil. Research Extension Management Journal, 3 (7): 80-89.

Sadeghi, Ali Mansour, Hassan Zadeh, A., Bagheri, the power of God; Amiri, Ali Naqi (2012). Internal and external factors affecting customer satisfaction in Salehin credit and financial institutions (banks and future), the Fourth Conference on Marketing of Banking Services, Tehran, IRIB International Conference Center.

Saidi, N., Karimkhani, MJ and lively wine, S. (2012). Evaluate the impact of intellectual capital on employee performance across the organization. Rubber Industry Quarterly, 16 (65): 58-66.

Salehi Kerdabad, Mazandaran, S. (2010). The relationship between innovation and performance. Third National Conference of creativity, TRIZ (TRIZ) and engineering and management of innovation. Tehran: Tehran home teacher.

Schweyer, A. (2004). Talent Management Systems, Best Practices in Solutions for Recruitment, Retention and Workforce Planning, Wiley, New York, NY.

Soltani, A. (2008). Breeding ground for performance management, human resources, policy advocacy scientific journal, 19 (92): 20-23.

Sweem, Susan L. (2009). Leveraging Employee Engagement through a Talent Management Strategy: Optimizing Human Capital through Human Resources and Organization Development Strategy in a Field Study, dissertation, available at: http://www.umi.com/pqdauto.

Tahmasbi, R., H. M., S.; Lyjbary, H. and Khorasani, A. (2013). Developing indicators for identifying talent in strategic business SAPCO (case study: the area of manufacturing and supplying piece), Public Management Research, 6 (20): 97-119.

Tajuddin, M. and Maly Tafti, M. (2008). Why ?, Talent Management magazine Tdbyr.shmarh 191, pp. 62-63.

Taleghani, GR; Amini, S., Ghaffari, A., Dvsy, H. (2013). The relation between talent management and performance of faculty members, Journal of Public Management, 5 (3): 83-102.

True, Muhammad Ali, Ahmad, I. and R. Seals, H. (2009). Effects of organizational justice on employee performance. Organizational Culture Management, 7 (20): 79-101.

Weiss, A., & mackay, N. (2009). The Talent Advantage: how to attract and retain the best and the brightest. John Wiley & sons, Inc. Hoboken, New Jersey

Yamini, M. (1992). Systems of universities. Tehran: Institute for Research and Planning in Higher Education.