Investigating the Effect of Strategic Human Resource Planning In the Effectiveness of Industrial Plants
(Case Study of Mazandaran Province)

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Abstract:

In this study, we addressed the investigation of the effect of strategic human resources planning in the effectiveness of industrial plants of Mazandaran province. To prove the subject, we used four hypotheses. All managers and industry experts of Mazandaran province, whose numbers are (163) people helped us. Sampling is in classification mode which first of all personnel were divided into two classes (managers and professionals), then the necessary sample size was calculated by the method of taking into account of population size from each classification. In this study, data were collected by questionnaire and statistical analysis was performed. In descriptive statistics part, the two-dimensional tables and calculation of statistical indicators and charts were used. In the analytical part, according to the data being abnormal for the test of population mean equality with a certain number, non-parametric equality median test is used and for the equality of two population means u man-whitny test and finally instead of variance analysis, the Kruskal-Wallis ANOVA were used, considering the obtained results, all four hypotheses were accepted and the effectiveness of strategic planning of human resources in industrial factories (organization) was confirmed.

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Key words: strategic human resources planning, effectiveness, culture, personnel transport, product quality, rate of return

INTRODUCTION

Human resources (HR) of an organization is starting to be one of the imperative capital is assuming such a vital part in the operation of an association (Desler, 2001). That human capital has for quite some time been held to be a basic asset in many firms. Organizations are presently endeavoring to include an incentive with their HR and human asset (HR) office has been set up keeping in mind the end goal to deal with their human capital, whereas association in a decade ago dealt with their human capital through staff office, which is just a little division of the organization (Adnane, 1998). The way toward dealing with the human capital is called human asset administration (HRM).organizations have begun understanding the significance of HRM. By looking with globalization, increase to the WTO, multifaceted nature of the issue of vitality utilization and ecological necessities, trailed by happening distinctive social, financial and social marvels, and social and political duties that subsequently, these issues will be on the leaders of the group, all businesses should focus on the point that a domain in which they venture forward is the ground of shaping and execution of their procedure and for this situation the basic and activity factors put ideal and troublesome powers toward the association and industry. Also, without perceiving and reacting to condition, their key moves will be less advantageous and high-hazard (Mirsepassi , 1995).

Regularly as far as assets, for example, capital, arrive, vitality, hardware, and so on we confront Limitation, however a trump card can be had in aggressive markets through having an awesome and boundless asset like the energy of imagination and advancement and manufacture a superior world in light of

it. (Baird, & Meshoulam, 1988). Therefore, human asset administration shapes a noteworthy piece of the domain of science and workmanship that we will have a predicting, creative and transformational considering, with a key viewpoint to it and we will discover the part of Human Resources obligations in enlistment and supply of HR administration, preparing and improvement, maintenance lastly, legitimate and powerful utilization of this critical vital asset like never before. So we should give careful consideration to the exercises of HR to keep up associations in this touchy circumstance of rivalry (globalization), and viewed it as lining up with the business methodology's level from regulatory capacities and as a vital chief (Saadat ,.2003).

PROBLEM STATEMENT

Since we are in the twenty-first century, quick social changes are quick forward. Changes appear and go ahead with the goal that the creative ability and picture of future changes is going near the creative ability more than some time recently. Social associations as a piece of the social dynamic frameworks are to a great degree powerless against these progressions (David, 1999). Rearrangements and with shorter time interims and the utilization of new strategies for overseeing creation exercises and administrations all serve to change and try to it. Organizations must finish the base of their present projects with attempts to examine and assess the earth and to find key open doors. This is the initial phase in a key move. Vital developments occur about the business condition and these structures an indistinguishable connection between the adequacy of the system and business condition. In associations, HR is a critical factor in improving the adequacy, and is a section that is a wellspring of direction in the association. In this examination, by researching the impact of vital human

asset arranging in the adequacy of mechanical plants (in this investigation, association is utilized rather than the words modern plants) the significance of this system can be tended to.

METHODOLOGY

In each study and research, the main objective is to discover the laws and principles that is being ruled in the population under study and that is where the concept of research design and research methods related to it, make sense. Thus, the research design is in fact the action plan and operational implementation that in this regard three cases arise. From what perspective, the issue will be treated, What methods are used, and which technique and method will have the most effect on this study, so the choice of any decision about the study, depends on the study's purpose and nature of the problem under consideration, and in the definition of descriptive research, a systematic, objective and accurate explanation of considered society's features is the point. Research methodology is described in this chapter. Thus, statistical population, sampling methods, research methodology, required information collecting and data analysis method are discussed. All industry managers and experts in Mazandaran province who are (163) persons. Sampling is in classification method, that first, all staff are divided into two classes (managers and professionals) then by (taking into account population size) method, the number of necessary samples are calculated from each class which are as follows. In this study, data are collected by questionnaires. A questionnaire is the collecting data tool that includes personal information and questions that evaluate research hypotheses. The way to use data collecting tool is that the samples are identified first, and thus, the questionnaires are being completed.

FINDINGS OF STUDY

To verify the hypothesis, first, the normality of the data was examined; One-sample kolmogrov-smirnov test has been used for the purpose of the test. Because calculated P_v in all the hypotheses questions is lower than 0/05, thus data do not follow a normal distribution. For this reason, instead of the average equivalent non-parametric test, the median test has been used to address every hypotheses question. In the median test because the options were from one to five, its median is three, therefore this test is done for every single question.

$$\begin{cases} H_\bullet : me \leq 3 \\ H_1 : me > 3 \end{cases}$$

If H1 is approved, which means the median data is greater than 3. In other words, the proportion of people who have chosen the high and very high options is more than 50%. To investigate this test, t_1 is the number of data that are less or equal, are mean and then p ($y \leq t1$) is calculated. If calculated p is less than 0/05, it indicates that the null hypothesis is rejected. Otherwise, H0 is accepted. Because n = 91 to calculate the binomial probability, a normal approximation has been used.

$$p(y \leq t_1) = p(\frac{y-np}{\sqrt{npq}} \leq \frac{t_1-np}{\sqrt{npq}}) = p(z \leq \frac{t_1-91\times0/5}{\sqrt{91\times0/5\times0/5}})$$

Of course, the Likert scale was used to assess the overall hypothesis, because after using Likert scale, it was following the normal distribution. To overall evaluate the assumptions, a range of t-test is used.

First hypothesis:
The level of investment on human resources strategic planning is not associated with an increase in services and products: H0

The level of investment on human resources strategic planning is associated with increasing services and products: H_1

$$\begin{cases} H_\bullet : me \leq 3 \\ H_1 : me > 3 \end{cases}$$

To investigate this hypothesis, the 6 questions were used that first examined every single question and then be evaluated as a whole.

Table 1 investigating the effect of human resource strategic planning on the following items:

Hypothesis 1 questions	Number	T_1 of numbers that are smaller than mean	P_v	Test results
Services and products' quality	90	10	0.000	Effective
Customer satisfaction	90	14	0.000	Effective
Reducing the cost	90	11	0.000	effective
After sales services	90	10	0.000	Effective
Proper packaging	90	15	0.000	Effective
The product variety	90	22	0.000	Effective

According to the above table data about all the first hypothesis questions, null hypothesis is rejected because calculated P_v is less than 0.05. In other words, we can say that the median response for all 6 questions is more than 3. Now we examine this hypothesis in general.

Table 2 Summary of the effect of human resources strategic planning on the following items:

Hypothesis	Number	Mean	Standard deviation	calculated T	P_v	Test result
The first hypothesis	90	25/4	53/0	56/22	000/0	Effective

Because the calculated P_v is as less than 05/0 null hypothesis is rejected, and the claim will be accepted, in other words: The level of investment can be said that answers' mean is more than 3 for all the 6 questions. The strategic planning of human resources is associated with increasing services and products.

The second hypothesis:

The amount of investment on human resources strategic planning is associated with decrease in transferring human resources. To investigate this hypothesis, five questions are used.

Table 3 investigating the effect of human resource strategic planning on the following items:

Hypothesis questions	Number	T_1 of numbers that are less than mean	P_v	Test result
Customer's satisfaction	91	7	0.000	Affective
Job dependence	91	16	0.000	Effective
Loyalty to the organization	91	22	0.000	Effective
Obligation to the organization	91	20	0.000	Effective
Job security	91	15	0.000	Effective

$$\begin{cases} H_\bullet : me \leq 3 \\ H_1 : me > 3 \end{cases}$$

According to the statistical calculations done, because in all the questions calculated P_v is less than 0.05, so the null hypothesis is rejected. Now, we study the second hypothesis, generally.

The level of investment in human resource strategic planning is not associated with a reduction in human resources transfers: H_0 the level of investment in human resources strategic planning is associated with reducing human resources transfers: H_1

$$\begin{cases} H_\bullet : me \leq 3 \\ H_1 : me > 3 \end{cases}$$

Table 4 Summary of the effect of human resources strategic planning on the following items:

Hypothesis	Number	Mean	Standard deviation	calculated T	P_v	Test result
Second hypothesis	91	09/4	56/0	62/18	000/0	Effective

Calculated t in the above table shows that the null hypothesis with 0.001> α is rejected which means: The level of investment on human resources strategic planning is associated with a decrease in human resources transfers.

The third hypothesis:

The level of investment on human resources strategic planning is associated with increase in organizational culture strength. To investigate this hypothesis, the following four questions were used.

$$\begin{cases} H_\bullet : me \leq 3 \\ H_1 : me > 3 \end{cases}$$

Table 5 investigating the effect of human resource strategic planning on the following items:

Third hypothesis questions	Number	T_1 of numbers that are less than mean	P_v	Test result
Organizational values	91	16	0.000	Effective
Organizational conformity	91	17	0.000	Effective
Adoption of rules and regulations	91	7	0.000	Effective
Association of the members	91	13	0.000	Effective

According to the statistical analysis in all questions of the assumption, because calculated P_v is less than 0.05 so the null hypothesis is rejected. Now we address the third hypothesis generally. The level of investment on human resources strategic planning is not associated with increase in organizational culture strength: H_0 the level of investment on human resources strategic planning is associated with increase in organizational culture strength: H_1

$$\begin{cases} H_\bullet : me \leq 3 \\ H_1 : me > 3 \end{cases}$$

Table 6 Summary of the effect of strategic planning of human resources on the following items:

Hypothesis	Number	Mean	Standard deviation	Calculated T	P_v	Test result
The third hypothesis	91	23/4	49/0	78/23	000/0	Effective

Because the calculated P_v is less than 0.05 so the null hypothesis is rejected. In other words: The level of investment on human resources strategic planning is associated with increase in organizational culture strength.

Fourth hypothesis:

The level of investment on human resources strategic planning is associated with an increase of human resources rate of return. To investigate this hypothesis, we used the following four questions.

$$\begin{cases} H_\bullet : me \leq 3 \\ H_1 : me > 3 \end{cases}$$

Table 7 investigating the effect of human resource strategic planning on the following items:

Questions of fourth hypothesis	Number	T_1 of numbers that are less than mean	P_v	Test result
Strictness and efforts in carrying out the duties	91	14	0.000	Effective
Interest in the job	91	20	0.000	Effective
individual interests' alignment with organizational interest	91	16	0.000	Effective
The sense of belonging to the organization	91	37	0.000	Effective

According to the above table data, because calculated P_v for each of the four questions is less than 0.05, thus the null hypothesis is rejected and H1 is confirmed. Now we consider the fourth hypothesis generally. The level of investment on human resources strategic planning is not associated with the increase human resources rate of return: H_0 the level of investment on human resources strategic planning is associated with increase in human resources rate of return: H_1

$$\begin{cases} H_\bullet : me \leq 3 \\ H_1 : me > 3 \end{cases}$$

Table 8 Summary of investigating the effect of strategic planning of human resources on the following items:

Hypothesis	Number	Mean	standard deviation	Calculated T	P_v	Test result
The fourth hypothesis	91	07/4	55/0	48/18	000/0	Effective

Because the calculated PV is less than 05/0, so the null hypothesis is rejected and the claim is accepted: The level of investment on human resources strategic planning is associated with an increase in human resources rate of return. One of the

studies done on this study is to compare the responses in different groups that u. man whiten test is used to compare two statistical populations (Managers and professionals) and gender (male and female) and kruskal- wallis test) (k-w) is used for comparisons between more than two populations (education, work experience and management experience).

Table 9 the study of comparing responses of four hypotheses between the two groups of managers and experts

Hypotheses	experts			managers			U Man Whitney	
	number	mean	standard deviation	number	mean	standard deviation		P_v
Hypothesis 1	71	21/4	53/0	20	37/4	52/0	5/572	185/0
Hypothesis 2	71	03/4	55/0	20	32/4	54/0	5/440	009/0
Hypothesis 3	71	22/4	47/0	20	26/4	58/0	640	495/0
Hypothesis 4	71	99/3	53/0	20	37/4	53/0	396	002/0

According to the calculated P_v about the above four hypotheses because in the first and third hypotheses the calculated P_v is more than 0.05. Thus, the responses difference between the two groups is not statistically significant. However, about the second and fourth hypotheses, because the calculated P_v is less than 05/0 so the null hypothesis is rejected and differences in responses of the two groups is significant. By observing descriptive statistics, it can be said that managers' responses' mean is more than the experts' are.

Table 10 Study of comparing four hypotheses responses between men and women groups

Hypotheses	Males			Females			U Man Whitney	
	number	mean	standard deviation	number	mean	standard deviation		P_v
Hypothesis 1	71	4/27	0/52	24	4/18	0/56	723	0/463
Hypothesis 2	67	4/12	0/54	24	4/02	0/61	723/5	0/465
Hypothesis 3	67	4/22	0/51	24	4/25	0/45	801	0/978
Hypothesis 4	67	4/12	0/53	24	3/95	0/61	668	0/215

Given the above information, because about every four hypotheses calculated P_v is more than 0/05 so the null hypothesis is confirmed which means that there is no significant difference between men and women.

Table 11 investigating the comparison of four hypotheses responses among different levels of literacy

hypothesis	The literacy level	Number	Ranks' mean	χ^2	Degree of freedom	P_v
The first hypothesis	Diploma or less bachelor Graduate	6 66 19	45/83 44/86 50	0/565	2	0/754
The second hypothesis	Diploma or less bachelor Graduate	6 66 19	52/67 41/35 60/05	7/916	2	0/019
The third hypothesis	Diploma or less bachelor Graduate	6 66 19	66/42 41/23 56/11	8/807	2	0/012
The fourth hypothesis	Diploma or less bachelor Graduate	6 66 19	63/42 43/27 49/97	8/807	2	0/147

According to the information above on the first and fourth hypothesis, null hypothesis is confirmed which means among given responses at different levels of literacy, there is no significant difference. However, about the second and third hypotheses, null hypothesis is rejected in other. According to above information the null hypothesis is rejected only about the first hypothesis, which means among the responses given by different work-experienced people there is a significant difference. About the second, third and fourth hypotheses, the null hypothesis is confirmed that there is no significant difference among responses. "Of course, this hypothesis has been measured only among managers with different management experience." According to above, information only among the fourth hypothesis answers with different management experience is significant but about the other three hypotheses responses' difference is not significant.

CONCLUSION

In this test, all managers and experts who were (163) people helped us. Sampling was in classification method that first all staff were divided into two classes (managers and professionals), then the necessary sample size was calculated by (taking into account population size) from each class. In this study, data were collected by questionnaire. Data collection tool was the questionnaires, which included individual information and questions that measure hypothesis. The usage of data collection tool is so that first examples are defined and then questionnaires are completed by referring to them and statistical analysis was done using software (SPSS14 & EXCEL). Two-dimensional tables and statistical indicators' calculations and charts were used in the descriptive statistics section.

In the analysis section, a certain number of non-parametric median test was used due to non-normal data to test population's mean equivalence and to test two populations' mean equivalence Whitney U was used, and finally non-parametric Kruskal-Wallis test was used instead of analysis of variance. Theoretical contexts and backgrounds of the study related to the topic are presented in detail in Chapter two (literature study). The results of this study are consistent with the research's results. About the first hypothesis, the results of this study are consistent with the results of the Chang et al (2008) and Mehrian et al (2000) who say "Human resource strategic planning is effective in increasing the quality of services and products". The second hypotheses prove is right according to the scientific articles of Boudreau (2003), Oppenheim, Hyman, and Kydd. (1984) that say "Human resource strategic planning is related to reducing human resources transactions". The result of third hypothesis is consistent with the results of Hiuslid (2005), Boudreau (2003),

Seyed Javadin (2005), Ching-Chow Yang (2006) who say "Human resources strategic planning is related to increasing organizational culture strength". The results of fourth hypothesis are related scientific results of Kandkar et. al. (2005), Hendry, C and Pettigrow (2006), Farovernika (2007), which say "Human resource strategic planning is related to increasing human resources' rate of return". According to the results, all four hypotheses became accepted and human resource strategic planning's efficiency in the organization has been confirmed.

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