EXAMINE THE RELATIONSHIP BETWEEN ORGANIZATIONAL COMMITMENT EFFECTIVENESS AND EMPLOYEE EFFICIENCY OF QAZVIN AGRICULTURAL ORGANIZATION

MASOUME SALMAN, KATAYOUN POURMEHDI, NASER HAMIDI

Department of Management and Accounting, Qazvin Islamic Azad University- Qazvin, Iran

Abstract

Organizational commitment and efficiency of the organization is numerous discussions with various concepts that have been studied. Most studies have examined the relationship between these two have been statistically and Much research has been reported in relation to organizational commitment and employee efficiency. However, to determine the optimal point in this connection in organizations is fewer mentioned the purpose of this study was to determine the optimal point Each of the dimensions of organizational commitment and employee efficiency and also examine how the impact of job satisfaction on this optimal point. Participants were included 250 employees Agricultural Organization of Qazvin. Research tools was a questionnaire include Organizational commitment, job satisfaction that was distributed randomly between them. Employee efficiency through evaluation forms of employee performance was measured. In this study, the average and standard deviation to describe the data and multiple regression models with imaginary variables or dummy in the analytical and to test the significance of regression coefficients T- test were used. Level of emotional commitment elements with an average 61/77 and normative commitment with an average 61/74 is higher than average in Qazvin Agricultural Organization. But the Level of continuous commitment element is 48/08 which is lower than average. Relationship between two variables, emotional commitment and employee efficiency is Non-linear and function has the maximum point (86/50 and 80/93). Relationship between two variables Normative commitment and efficiency is nonlinear and a function has the maximum point (77/85 and 75/93). See that for continuous commitment there is a negative linear correlation between continuance commitment and efficiency. Job satisfaction as intermediary variables will be affected Optimize points each of the dimensions of organizational commitment and employee efficiency.

Keywords: organizational commitment, emotional commitment, normative commitment, continuance commitment, employee efficiency, job satisfaction

1 – Introduction:

Organizations are social systems that human resources are the most important factor for the effective and efficient. Organizations are not successful without any effort and commitment of employees. Employee’s job satisfaction and their commitment to the organization can be seen as a major determinant organizational effectiveness. [26] Organizational commitment an important criterion for the effectiveness of the organization. It is assumed that organizational commitment predicts a movement rates and stable workforce. Also the organizational commitment shows extent that an organization can continue to participate in the activities of employees and its growth into account. Also an organizational commitment is good indicator of Quality of work life. [21]

The interest of this explains in the concept of management is also a very good indicator of effort and loyalty to the organization. In particular, organizational commitment is relevant with stable workforce and, employee effort, job performance, service quality, and coordinated behavior. [14], Increase organizational commitment and lower levels of job stress influenced Participation levels in the organization in ways that not only the individual but also to benefit the organization [22] employee commitment will be necessary to organizational success in the contemporary. Employees with high commitment is probably allows eager to abilities Better compliance and more responsiveness to changes in customer demand also adapts to pressures and constraints environmental. In many organizations, the employees constitute a major factor and affect effectiveness, efficient, and professional organizations their performance. Therefore, for the successful operation of any organization is interested in increasing staff who are committed to the organization and its goals. If the organization is successful in creating a sense of loyalty and commitment of many employees then
there is higher probability to get its objectives and its overall performance is increased [9].

2 - Review of Literature

2-1 - Organizational Commitment

2-1-1 - Definitions and concepts of organizational commitment

- The Oxford Dictionary of commitment "is an obligation to limit the freedom of action “

- “commitment is a kind of emotional attachment and fanatical to the values and goals of an organization.” [17]

- Organizational commitment means Acceptance of the Organizational values and being involved in organization and Criteria for to measure it, including motivation, desire to continue working and accept the values of the organization. Organizational commitment is composed of at least three factors:

A - Agreed an organization and accept its goals and values.

B - Preparation for focusing significant efforts.

C - Favorites to keep membership in the organization [28]

- Organizational commitment means to support and emotional bonding with values and goals of an organization, for organization itself and away from its instrumental values (means to achieve other goals). [27]

- Commitment to a kind of mental state that provides desire, needs to continue and obligation an employment Organization. So the definition of organizational commitment involves three general: 1 - emotional attachment to the organization; 2 - probable cost caused by leaving organization; 3 - responsibility, obligation and duty to remain in the organization. [25]

2.1.2 - the need for organizational commitment

There are many reasons why an organization should increase the level of commitment of its members. [32] Firstly, organizational commitment is a new concept and different from the general dependence and job satisfaction. For example, nurses may do something that they are like, but the hospital where they work, they are unhappy, then they will search for other similar Jobs in the similar area, or vice versa, The waiters in restaurants may have a positive feel about their work environment, but waiting on the tables or in general as they hate their job. [ 19] Secondly, research has shown that organizational commitment with outcomes such as job satisfaction (Batman and Strasser, 198), presence (Matieu and Zajac 1990) meta-social organizational behavior (Chatman and OReilly 1986) and job performance (be Mey, Allen and Smith 1993) has positive relationship and for leaving a job (Moody, Porter and Steers 1982), its relationship is negative. [29]

2-1-3 - Factors affecting organizational commitment

1. Individual characteristics: age, gender, education, marital status, job history, history of the organization, abilities and...

2. Job characteristics: skill variety, autonomy, job challenge

3. Characteristics related with the role: role ambiguity, multiple roles, role conflict

4. The manner of behavior group / leader: group cohesion, interdependence, communication leadership

5. Organization characteristics: the degree of centralization, formalization of the organization, dimension and size organization [24]

2-1-4 - components of commitment

Experts such as Becker (1992) stated that it is committed to joining the organization and the job done in terms of the following components:

1 - Information and Compliance (Compliance) or compatibility and conformity with the organization through a mechanism of reward and punishment.

2 - A sense of identity and identification (Identification) or the desire for belonging and belonging

3 - (Internalization) or homogeneity of the person’s values with organization's goals and values . [11]

Overall, what is important about this; according to the three dimensions of commitment distinguish between two types of active commitment and passive commitment. Active commitment means commitment that will occur on consciousness but passive commitment, including commitment is mandatory. [11]

View Sheldon’s idea organizational commitment is three main components: "a strong belief in the acceptance of organizational goals, willingness to exert considerable effort for the organization, and desire definite to keep organizational membership”. [30]

2-1-5 - Dimension Commitments

Allen and Meyer commitment to the three main and can be described as follows:

1- Affective Commitment
Affective commitment represents an interest in continuing to serve the organization. Affective commitment is defined as a dependency for a job and stay for a continuing desire to serve this dependency. In other words, Affective commitment is emotional bonding and identification personality with the organization’s values and objectives.

2-Continuance Commitment

This commitment implies probable costs caused by leaving organization and Forced to remain and continue serving the organization. In this regard, whatever employment opportunities for people outside the organization less and his invest be greater, probability of leave the service will be less. In other words, with the spending of time and job training efforts, most people refused to leave the job simply and necessarily continue their work in the organization.

3- Commitment Normative

Normative commitment to the organization is the sense of responsibility and a sense of moral obligation, on this dimension of commitment; people continue to serve on the organization's activities as their duty to pay their loans to the organization. [8]

![Figure 2-1-1 - dimensions of organizational commitment [25]](image)

2.2 - Efficiency

2-2-1 - Definitions of efficiency

Already many definitions of efficiency provided that the number of those mentioned:

1) Efficiency is ratio that shows comparison between some aspects of performance, with costs incurred to achieve those. [4]
2) Efficiency is the amount of resources that produces a single product that has been spent and it can be calculated in terms of the proportion of the product consumed, if an organization in comparison to other organization spending a smaller amount of resources to reach the goal, they are more efficient. In other words efficiency means less time or energy for most work done. [3]
3) The efficiency is ratio of actual output to standard output has been set (expected) that is performance or efficiency or real ratio of the amount of work done to the amount of work to be done. [2]
4) Efficiency have meaning, do well, or to do the job right.

2.2.2 - value and Importance of efficiency:

In today's economy, all countries, whether developed or developing; efficiency and therefore productivity has become a national priority. Survival and viability of countries where the only source of them is manpower, are much as depends on continuous ability to product maximum possible output per unit of input. Efficiency allows providing economic growth and control inflation and the possibility of achieving a high level of standard of living. Benefits of efficiency for the organization as follow as:

Saving of scarce resources and Increased power against increase the power of the people, the efficiency benefits appears as high wages and better working lives. Any waste of resources and Failure to optimal use them, Inappropriate structure, Unnecessary splurges, Unbalance credit policies, excessive rules, staff complained ;these implies that there is likely of static as a sign that the disease can be used at any organization. Thus, in addition to a performance measure that can help managers make any organization in evaluating under the units is also can be used as an audit tool management function. [6]

2-2-3 - Definition of Performance Assessment

Performance: is real result and measurable of efforts. [7]

In general, we can consider performance assessment as a tool to measure competencies and efficiency performance of workforce and
understanding of their capability as part of realization. And keeping mind the supply of services (production) and their readiness for advancement, development and innovation [1].

The importance of evaluation is same both for the organization and the labor. So that its results are use as in the recognition of competence, efficiency and effectiveness of various administrative tasks, such as selection, recruitment, workforce planning, determining training needs, evaluation of educational programs, determine the payment system rewards and prizes to be job promotion. Furthermore, the results of evaluation affects also to weak staff and this effect starts as depriving him of the reward, bonus, promotion and rewards of financial and spiritual. To be continue as consider rebuked for him or Being fired. And thus performance evaluation can be considered as the most important issue in human resource management. As we look at the performance evaluation should be comprehensively all factors and organizational components include a definition of the evaluation performance is proposed: « The process of evaluation and assessment of performance in a given time, So that the expectations and criteria for judged by self-evaluation system be clear and It has already been notified, refers to performance evaluation. » [5]

2-3 - job satisfaction

2.3.1 - Definitions of job satisfaction

Job satisfaction is defined as all inclinations positive or positive feelings that people have toward their jobs. When we say that a person has a job satisfaction, In fact, the overall mean is that he loves his job significantly and through that has been able to satisfy his needs and therefore has a positive feel to it. [16]

Smith, Kendall and Hulin (1969) were determined five basic job characteristics indicate that people feel towards their work: 1 - 2 job nature - pay (salary and benefits) 3 - opportunities for advancement 4 - supervisors 5 - colleagues [31]

Armstrong (1993) also says that job satisfaction represents an attitude and feel of their work. Favorable attitude toward work and job satisfaction indicates poor attitude is negative and indicates lack of job satisfaction. [15]

Locke (1969) defines job satisfaction to sense of job evaluation as the facilitator of achieving job values is derived. He describes four factors carry of job satisfaction, these factors include:

1- bonuses as mean as pay and improve conditions
2- the job fields as mean as Conditions and job benefits
3- Factors and relationships with colleagues and supervisors
4- Job characteristics [23]

2.3.2 – Dimensions of job satisfaction

The overall three dimensions of job satisfaction have been identified include:

1- Job satisfaction is an emotional response to a situation or condition of job;
2- job satisfaction are determined is often to the extent fulfillment the needs and expectations
3- Job satisfaction is flowing from many perspectives interdependent. [13]

2-3-3 - effective factors on Job Satisfaction

Various studies on job satisfaction suggests that job satisfaction is related to many variables, these variables are classified into four groups: [18]

1 - Organizational factors such as salaries, promotions, and...
2 - Environmental factors such as the range and diversity of job
3 - The nature of work such as: style of supervision, working conditions, working group
4- Individual factors such as positive and negative attitudes, age, and seniority and...

2-3-4 - job satisfaction and performance

One of the most controversial issues of job satisfaction its relationship with performance. There are three views in this case: [20]

1- Job satisfaction increases performance.
2. Job performance provides job satisfaction.
3. There is no inherent relationship between job satisfaction and performance, but the rewards are variables that are involved. Job satisfaction and performance on these forms to suit the view above shows:

1- Job performance Job satisfaction.
“The satisfied worker is more productive

Cause

2-Job performance  Job satisfaction.

“The more productive worker is satisfied”

Cause

3-Job performance  Job satisfaction.

“There is no relationship or a particular direction”

For the first of two points of view has provided support by poor research. Twenty studies in this area indicate that there is poor correlation between job satisfaction and performance, and indicate that employee satisfaction does not necessarily

High performance but the research results show that the second approach has been to some extent confirmed by the higher performance follows higher satisfaction but in the third view that located reward as confounding variables in the relationship between performance and job satisfaction of certified introduces been confirmed more. This means that performance is not outcome of satisfactory job and job satisfaction is not outcome of performance [12]

In 1955, "Brayfield and Crockett" literature review to Job satisfaction and performance, and concluded that there is little direct relationship between these two phenomena. In fact, sometimes relationship between job satisfaction and performance are the opposite correlated. Expectations theory can be solved to some extent of the puzzle. From this perspective, Motivation is the activation, guided energy and the behavior, while job satisfaction is Station or reward behavior. When organizational members are satisfied with work something has been reduced such as absenteeism rates, delays and even leave the service. In fact, job satisfaction can be Determinant for the organization. [12]

3 - History of Research

Venter Collinz (2000) et al in their study noted a significant relationship between job efficiency and the feeling of suspense. The relationship between participation and commitment is one of the main issues and concerns of human resource management that should be to focus of many discussions among researchers. Dependency and relationship between participation and organizational commitment to knowledge management that not only participation is effective in the development of normal behavior and increasing staff efficiency and provides independence of staff through democratic organization it would also be effective in improving and strengthening organizational commitment.

Vdanham and Taylor (2001) in their study found that between organizational commitment and organizational efficiency, effectiveness and efficiency are closely related.

Misner and et al (1996) and Gaynor et al (1995) research showed that between productivity and job satisfaction, organizational commitment, there is a significant positive relationship. In this study, the correlation between productivity and job satisfaction was 19.9% and the correlation between productivity and commitment was 20.9%. And the correlation between job satisfaction and organizational commitment was 47.6%. In this study, a significant relationship between leader behavior with organizational commitment and productivity and staff job satisfaction are shown.

In a study by DANESH FAR and MAHJOUBEH RAVESH to examining the relationship between job satisfaction and organizational commitment which titled employee performance in Yazd steel companies, It was shown that 0.56 Changes in performance is explained by two variables: job satisfaction and organizational commitment and 0.61 variations of organizational commitment are determined by job satisfaction. It was concluded that with increasing organizational commitment, job satisfaction efficiency of the employees also increases.

HAJI AHMADI's study (1382) examined organizational commitment and its relationship with productivity where workers and managers studied in the industrial city of Qom, Showed that there are a significant relationship between emotional commitment and productivity groups of managers and workers. In addition, there is a significant relationship between normative commitment and productivity of the workers.

By HOSSEIN ZADEH's paper titled, "The relationship between justice and organizational commitment and job productivity among teachers in high school girl in city of MARVDASHT" was done, it was found that among components commitment, only emotional commitment at the 0.18 level can predict the efficiency and other factors could not predict and these components have not a significant relationship with productivity.
The study, "The relationship between organizational commitment and efficiency" among members of the rehabilitation team training center - psychiatric medical RAZI has been done by SHARIFI ASL and CHABOK and HATAMI ZADE, Results indicate that all three components of organizational commitment and efficiency indicators exists a significant positive relationship, it can be originating from the promotion of efficiency that increases organizational commitment or people who have higher organizational commitment in terms of the status of efficiency indicators are more positive perception and evaluation.

In a research by TAVALAEE and BAGHERI entitled "Effect of organizational commitment and performance of organizations" were conducted, it was determined that organizational commitment has a large impact on organizational performance its result is increased productivity and efficiency.

In a research By MEHDI ZADE and HOSSEINI paper entitled "A Study of Organizational Commitment and relationship with performance" took place at MAZANDARAN Agricultural Organization; it became clear that there is no significance relationship between emotional commitment and normative commitment of employees And there is a significant relationship between the continuous commitment of the staff with their performance and finally, we found there are not significant relationship between organizational commitment and their performance.

Benkhof (1997) in his research examined organizational commitment and organizational performance in goals for sales and profit curves of payment. He reached the conclusion that organizational commitment was significantly correlated with the organization's financial success.

Wright and colleagues (2003) examined organizational commitment and human resources processes between independent business units of the company And reached the conclusion that both variables commitment and human resource processes substantially different with performance criteria (quality and productivity) in addition to operating costs and gross profit unit linked.

Keith Davis and John Newstrom are considered relationship between commitment and performance and job satisfaction as a bilateral relation in the form of interconnected satisfactory performance rings that level of his satisfaction affects to commitment And its effort and affect his performance ultimately. [10]

4 – Methodology

4.1 – Methods

This type of research is applied research that, exploratory method for estimating the optimal point in relation to each of the dimensions of organizational commitment with employee performance and is influenced by the job satisfaction mediator variable. Using multiple regression models with imaginary variables or dummy has been studied. The population consisted of 1040 that were randomly selected 250 subjects with the Cochrane formula. Two standard questionnaires were used to investigate the hypothesis research and data collection.

Allen and Meyer’s questionnaire to measure organizational commitment and Minnesota’s questionnaires to measure job satisfaction. The performance evaluation form was used to assess the efficiency of staff.

After data collection by questionnaire and performance evaluation’s form for all data were analyzed by SPSS software in two parts: descriptive and inferential.

In part of descriptive analysis were used index of central tendency (mean) and dispersion (standard deviation).

In part of Inferential analysis were used multiple regression model with imaginary variables, and t- test was used to test the significance of regression coefficients.

4.2 - Research questions

4.2.1 - The main questions

What kind of Mathematical function will be to estimate the relationship between organizational commitment effectiveness and what has impact is job satisfaction on this function?

4.2.2 - subordinate questions

- What is the optimization point of this function based on the relationship between emotional commitment and employee efficiency?
- What is the optimization point of this function based on the relationship between continuous commitment and employee efficiency?
- What is the optimization point of this function based on the relationship between normative commitment and employee efficiency?
- What has impact Job satisfaction to the optimal point of the function on the relationship between emotional commitment and efficiency staff?

- What has impact Job satisfaction to the optimal point of the function on the relationship between continuous commitment and efficiency staff?

- What has impact Job satisfaction to the optimal point of the function on the relationship between normative commitment and efficiency staff?

4-3 - purposes of research

So maybe in objectives of the present study can be summarized a few paragraphs as follows:

4-3-1 – Ideal purpose

Increase innovative activities related to organizational commitment and job satisfaction So that to creating organization's commitment desirable, lead to agricultural development and economic and social progress, including the Agricultural Jihad Organization and take more efficient processes.

4-3-2 - General purpose

The main goal is to investigate the relationship between organizational commitments, job satisfaction and employee efficiency in Agricultural Organization of Qazvin.

4-3-3 - Specific Purposes

1 - Determine the relationship between emotional commitment and employee efficiency

2 - Determine the relationship between continuance commitment and employee efficiency

3 - Determine the relationship between normative commitment and employee efficiency

4 - Determine the effect of job satisfaction on the relationship between emotional commitment and employee efficiency

5 - Determine the effect of job satisfaction on the relationship between continuance commitment and employee efficiency

5- Determine the effect of job satisfaction on the relationship between normative commitment and employee efficiency

4-3-4 - practical purposes

Identify the situation in which to increase organizational commitment and job satisfaction Desirable and increases staff efficiency of Agricultural Organization That cause organization will provide the conditions necessary to create such a relationship.

4-3 - 5 - method of data analysis

Data analysis is essential after gathering data, extraction and classification. At this stage, the researcher usually uses statistical methods to evaluate the outcome of collected data.

In this study, the mean and standard deviation were used to describe data and of the multiple regression model with imaginary or dummy variables were used to the analysis t-test were used to regression coefficients significant . To determine the optimal point of mathematical function between each dependent variable and independent variable affects the mediator multiple regression model by adding imaginary variables and a dummy variable for the intervention of a mediator in the relationship between the independent variable and dependent have been used.

4-3-6 - method of data collection

In this research to gather data and information is used from fieldwork method, by using a library, Theoretical Foundations, with research from books and journals and internet sites both English and Farsi were collected, And also use other forms performance evaluation and questionnaire was methods to gather data on this research.

5 - Data Analysis

In this section we review and analyze research questions. Questions about this research is finding relationships between variables and also find the optimal point (maximum) therefore to answer multiple regression procedure used.

Multiple regression models are as follows:

\[ Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \ldots + \beta_k X_k + \varepsilon \]

\( \alpha \) shows Fixed amount or the width of the origin, \( \beta \) shows the regression coefficients and \( \varepsilon \) shows error , \( Y \) shows Dependent variable and the \( X \) shows independent variables.

Hypothesis testing for the meaning coefficients are as follows:

\( H_0: \beta = 0 \)

\( H_1: \beta \neq 0 \)
Significant test of regression coefficients is performed using the t test. The following formula:

\[ t = \frac{\hat{\beta} - \beta_0}{S_{\hat{\beta}}} \]

\( S_{\hat{\beta}} \) is estimator for standard deviation.
Statistical software for significant or non-significant coefficients, or ..., represents Level of significance or p-value that if the significance level of less than 0.05/0, the null hypothesis is rejected and coefficient is statistically significantly different from zero otherwise coefficients is meaningless. For each of the models, after estimated coefficients t-test and the significance level is presented and reviewed its significant or not.

5-1 - subsidiary question 1: which Point of optimal mathematical function in the relationship between emotional commitment and staff efficiency?
Regression model is used to answer this question, after fitting the model then
Derived from it and set of zero, get the optimal point. The model is as follows:
\[ Y = \alpha + \beta_1 AC_1 + \beta_2 AC_1^2 \]

In above model Y is efficiency symbol, \( \alpha \) is the width of the origin model and AC is symbol of emotional commitment.

Table 1: Results of multiple regressions for emotional commitment and efficiency

<table>
<thead>
<tr>
<th>The coefficient of determination</th>
<th>Significant</th>
<th>T-statistics</th>
<th>Criteria error</th>
<th>Coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0.000</td>
<td>8.92</td>
<td>4.04</td>
<td>36.04</td>
</tr>
<tr>
<td>0.361</td>
<td>0.000</td>
<td>6.98</td>
<td>0.15</td>
<td>1.038</td>
</tr>
<tr>
<td></td>
<td>0.000</td>
<td>-4.76</td>
<td>0.001</td>
<td>-0.0006</td>
</tr>
</tbody>
</table>

The multiple regression emotional commitment and efficiency final model are as follows:

\[ \hat{Y} = 36.04 + 1.038AC - 0.006AC^2 \]

The coefficient of determination model is 36/0, which indicates that the model can explain 36% Changes Dependent variable.

Optimal point:
If the first derivative of the fitted model and sets equal to zero, the optimum (maximum) will be achieved:

\[ \hat{Y}' = 1.038 - 0.012AC = 0 \Rightarrow AC = 86.5 \]

Namely increased emotional commitment to this spot Increasing efficiency after that decreased efficiency has been associated.

![Figure 1 - Diagram of the relationship between the emotional commitment and employee efficiency](image_url)
5-2- subsidiary question 2: which Point of optimal mathematical function in the relationship between normative commitment and staff efficiency?

Regression model is used to answer this question, after fitting the model then Derived from it and set of zero, get the optimal point. The model is as follows:

\[ Y = \alpha + \beta_1 NC + \beta_2 NC^2 \]

In above model Y is efficiency symbol, \( \alpha \) is the width of the origin model and NC is symbol of normative commitment.

**Table 2 - Multiple regression results for the normative commitment and efficiency**

<table>
<thead>
<tr>
<th>The coefficient of determination</th>
<th>Significant</th>
<th>T-statistics</th>
<th>Criteria error</th>
<th>Coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0.000</td>
<td>8.50</td>
<td>4.3</td>
<td>36.54</td>
</tr>
<tr>
<td></td>
<td>0.32</td>
<td>0.000</td>
<td>6.54</td>
<td>1.012</td>
</tr>
<tr>
<td></td>
<td>0.000</td>
<td>-4.46</td>
<td>0.001</td>
<td>-0.0065</td>
</tr>
</tbody>
</table>

\[ \hat{Y} = 80.93 \]

The multiple regression normative commitment and efficiency final model are as follows:

\[ \hat{Y} = 36.54 + 1.012NC - 0.0065NC^2 \]

\[ \hat{Y} = 75.93 \]

The coefficient of determination model is 0/32, which indicates that the model can explain 32% Changes Dependent variable

Optimal point:

\[ \hat{Y} = 1.012 - 0.013NC = 0 \Rightarrow NC = 77.85 \]

Namely increased normative commitment to this spot Increasing efficiency after that decreased efficiency has been associated.

**Figure 2 - Diagram of the relationship between normative commitment and employee efficiency**
5-3- subsidiary question 3: which Point of optimal mathematical function in the relationship between Continuous commitment and staff efficiency?

Regression model is used to answer this question, after fitting the model then Derived from it and set of zero, get the optimal point. The model is as follows:

\[ Y = \alpha + \beta_1CC + \beta_2CC^2 \]

In above model Y is efficiency symbol, \( \alpha \) is the width of the origin model and CC is symbol of Continuous commitment.

Table 3 - Multiple regression results for the continuous commitment of personnel efficiency

<table>
<thead>
<tr>
<th>The coefficient of determination</th>
<th>Significant</th>
<th>T-statistics</th>
<th>Criteria error</th>
<th>Coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0.202</td>
<td>0.000</td>
<td>-3.67</td>
<td>-0.375</td>
</tr>
<tr>
<td></td>
<td>0.000</td>
<td>18.77</td>
<td>3.3</td>
<td>62.43</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>width of the origin</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>CC</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>CC2</td>
</tr>
</tbody>
</table>

The multiple regressioncontinuous commitment and efficiency final model are as follows:

\[ \hat{Y} = 62.42 - 0.375CC \]

The coefficient of determination is 0.202, which indicates that the model can explain 20% Changes Dependent variable. As you can see, there is no optimal point between continuous commitment and the efficiency and Relationship between them is linear and downside means with increasing continuous commitment, the efficiency of staff be reduced.

Figure 3 - The relationship between the graph of continuous commitment and employee efficiency
5-4 - subsidiary questions 4:

What effect Job satisfaction the optimal point of the function Based on the relationship between emotional commitment and employee efficiency?

To answer this question, multiple regression models are used by adding imaginary variables or dummy to intervene in the relationship between satisfaction, commitment and efficiency. In principle, we estimate to the relationship between commitment and efficiency in the presence of satisfaction variable. For this purpose, split the satisfaction of three categories: low (less than 33/33), moderate (between 33/33 to 66/66) and high (greater than 66/66) then two dummy variables add to the model. Basically, the dummy variable is constructed one less than the number of variables, that first variable called the name of H if a person answering satisfaction at level of high sets 1 and if otherwise is 0. The second variable (which we show to M): If the accountable is in the average satisfaction levels sets 1 and otherwise 0, if these two variables are 0 means accountable of level satisfaction is low. Dummy variable that could be added width of the origin, slope or both. If only is added the H origin or slope, models have changed on the y-axis and also the angle is different.

Furthermore when talking to the optimal point, in terms of theoretical model, Two degree regression model is considered, that obtained after fitting the derivative and set equal to zero for optimal point of Commitment for the efficiency. The fitting model is as follows...

\[ Y = \alpha + \beta_1AC_1 + \beta_2AC_2 + \beta_3H + \beta_4M + \beta_5(AC_1 \times H) + \beta_6(AC_2 \times M) + \beta_7(AC_2 \times M) + \epsilon \]

The above model Y is symbol of efficiency, \( \alpha \) is the symbol of width of the origin

The coefficient of determination is as follows:

<table>
<thead>
<tr>
<th>The coefficient of determination</th>
<th>Significant</th>
<th>T-statistics</th>
<th>Criteria error</th>
<th>Coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.000</td>
<td>8.84</td>
<td>0.009</td>
<td>35.82 width of the origin</td>
<td></td>
</tr>
<tr>
<td>0.000</td>
<td>6.08</td>
<td>0.01</td>
<td>1.002 AC</td>
<td></td>
</tr>
<tr>
<td>0.000</td>
<td>-4.39</td>
<td>0.80</td>
<td>-0.006 AC2</td>
<td></td>
</tr>
<tr>
<td>0.003</td>
<td>2.46</td>
<td>1.45</td>
<td>3.59 H</td>
<td></td>
</tr>
<tr>
<td>0.005</td>
<td>2.31</td>
<td>0.00</td>
<td>1.84 M</td>
<td></td>
</tr>
<tr>
<td>0.002</td>
<td>2.5</td>
<td>0.16</td>
<td>1.071 AC*H</td>
<td></td>
</tr>
<tr>
<td>0.02</td>
<td>1.99</td>
<td>4.05</td>
<td>0.03 AC*M</td>
<td></td>
</tr>
</tbody>
</table>

The final multiple regression model, emotional commitment and efficiency at presence of satisfaction is as follows:

\[ \hat{Y} = 35.82 + 1.002AC - 0.006AC^2 + 3.59H + 1.84M + 0.071AC * H + 0.03AC * M \]
The coefficient of determination model is 0.36, which indicates that the model can explain 36% Changes Dependent variable

if \( H \) and \( M \) are zero-based model is obtained (i.e., in terms of low satisfaction):

\[
\hat{Y} = 35.82 + 1.002AC - 0.006AC^2
\]

If \( M \) is equal to 1 (i.e., the average satisfaction level) then:

\[
\hat{Y} = 35.82 + 1.002AC - 0.006AC^2 + 1.84 + 0.03AC
\]

As can be seen the \( 1/84 \) is added to width of the origin model and \( 0/03 \) is added to the slope thus the optimal point will change. If \( H = 1 \) then:

\[
\hat{Y} = 35.82 + 1.002AC - 0.006AC^2 + 3.59 + 1.071AC
\]

Number 3/59 is added to width of the origin and slope regression is increased from 1/002 to 1/170. If the first derivative of the fitted model and sets zero the optimum (maximum) will be obtained, for the case of low satisfaction is:

\[
\hat{Y} = 1.002 - 0.012AC = 83.5
\]

\( \hat{Y} = 77.65 \)

Namely emotional commitment increased to cause of increasing efficiency since this point and after that decreased efficiency is associated

For medium satisfaction:

\[
\hat{Y} = 1.032 - 0.012AC = 86
\]

\( \hat{Y} = 82.03 \)

And for high level of satisfaction:

\[
\hat{Y} = 1.073 - 0.012AC = 89.4
\]

\( \hat{Y} = 87.38 \)

Show that satisfaction in commitment and efficiency at the optimum point is efficiently.

5-5 - Subsidiary questions 5:

What effect Job satisfaction the optimal point of the function Based on the relationship between normative commitment and employee efficiency?

As they passed, the fitting model is as follows:

\[
Y = \alpha + \beta_1NC + \beta_2NC^2 + \beta_3H + \beta_4M + \beta_5(\text{NC} \cdot H) + \beta_6(\text{NC} \cdot M) + \beta_7(\text{NC}^2 \cdot H) + \beta_8(\text{NC}^2 \cdot M) + \epsilon
\]

By fitting above model for data obtained from the questionnaires, only variables that were statistically significant in remained model and the final model is as follows:

<table>
<thead>
<tr>
<th>Table 5: Regression results for the normative commitment and efficiency in presence of satisfaction</th>
</tr>
</thead>
<tbody>
<tr>
<td>The coefficient of determination</td>
</tr>
<tr>
<td>----------------------------------</td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

Figure 4 - Diagram of the relationship between emotional commitment and employee efficiency affected by job satisfaction variables.

The lowest curve for low satisfaction, the middle curve for average satisfaction and upper curves is high satisfaction.

Top Topics shown in Fig 4. The optimum points are marked in Fig 4 are calculated for all three levels, three curves are presented for the three levels. It is shown that organizational commitment will increase by increasing satisfaction.
The multiple regression final model normative commitment and efficiency in the presence of satisfaction are as follows:

\[ \hat{Y} = 36.22 + 1.047NC - 0.007NC^2 + 3.55M + 0.06NC \times M + 0.13NC \times H \]

The coefficient of determination model is 0.37, which indicates that the model can explain 37% Changes Dependent variable

If H and M are zero-based model is obtained (i.e., in terms of low satisfaction):

\[ \hat{Y} = 36.22 + 1.047NC - 0.007NC^2 \]

If M is equal to 1 (i.e., the average satisfaction level) then:

\[ \hat{Y} = 36.22 + 1.047NC - 0.007NC^2 + 1.085 + 0.06NC \]

As can be seen the 1/085 is added to width of the origin model and 0/06 is added to the slope thus the optimal point will change. If H = 1 then:

\[ \hat{Y} = 36.22 + 1.047NC - 0.007NC^2 + 3.55 + 0.13NC \]

Number 3/55 is added to width of the origin and slope regression is increased 0.13. If the first derivative of the fitted model and sets zero the optimum (maximum) will be obtained, for the case of low satisfaction is:

\[ \hat{Y}' = 1.047 - 0.014NC = 0 \quad \Rightarrow \quad NC = 74.8 \]

\[ \hat{Y}' = 75.37 \]

The low satisfaction level, the optimum point is 74/8 for normative commitment. Means increasing normative commitment since of this point to increase the efficiency and after that reduced efficiency are associated.

For medium satisfaction:

\[ \hat{Y}' = 1.107 - 0.014NC = 0 \quad \Rightarrow \quad NC = 79.1 \]

\[ \hat{Y}' = 81.07 \]

And high satisfaction:

\[ \hat{Y}' = 1.177 - 0.014NC = 0 \quad \Rightarrow \quad NC = 84.1 \]

\[ \hat{Y}' = 89.24 \]

Top Topics shown in Fig 5. The optimums points are marked in Fig 5 are calculated for all three levels, three curves are presented for the three levels. It is shown that normative commitment will increase by increasing satisfaction.

Then the optimal point on the relationship between normative commitment and employee efficiency for Low satisfaction levels is 74/8 and for average level is 79/1 and for high satisfaction is 84/1.

The job satisfaction effects on optimal point of this function Based on the relationship between normative commitment and efficiency of staff.
Figure 5 - Diagram of the relationship between normative commitment and employee efficiency affected by job satisfaction variables.

The lowest curve for low satisfaction, the middle curve for average satisfaction and upper curves is high satisfaction.

5.6 - subsidiary questions 6:

What effect Job satisfaction the optimal point of the function Based on the relationship between Continuous commitment and employee efficiency?

As they passed, the fitting model is as follows:

\[ Y = \alpha + \beta_1 CC + H + \beta_2 M + \beta_3 (CC \times H) + \beta_4 (CC \times M) + \beta_5 (CC^2 \times H) + \beta_6 (CC^2 \times M) + \varepsilon \]

By fitting above model for data obtained from the questionnaires, only variables that were statistically significant in remained model and the final model is as follows:

Table 6: Regression results for the Continuous commitment and efficiency in presence of satisfaction:

<table>
<thead>
<tr>
<th>The coefficient of determination</th>
<th>Significant</th>
<th>T-statistics</th>
<th>Criteria error</th>
<th>Coefficient</th>
<th>Width of the origin</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.46</td>
<td>0.000</td>
<td>19.94</td>
<td>3.50</td>
<td>69.81</td>
<td>width of the origin</td>
</tr>
<tr>
<td></td>
<td>40.00</td>
<td>-2.95</td>
<td>0.126</td>
<td>-0.37</td>
<td>CC</td>
</tr>
<tr>
<td></td>
<td>000.0</td>
<td>-10.8</td>
<td>2.46</td>
<td>-26.62</td>
<td>H</td>
</tr>
<tr>
<td></td>
<td>000.0</td>
<td>-8.67</td>
<td>3.34</td>
<td>-20.56</td>
<td>M</td>
</tr>
</tbody>
</table>

The multiple regression final model Continuous commitment and efficiency in the presence of satisfaction are as follows:

\[ \hat{Y} = 69.81 - 0.37CC - 26.62H - 20.56M \]

The coefficient of determination model is 0.46, which indicates that the model can explain 46% Changes Dependent variable

If H and M are zero-based model is obtained (i.e., in terms of low satisfaction):

\[ \hat{Y} = 69.81 - 0.37CC \]

If M is equal to 1 (i.e., the average satisfaction level) then:

\[ \hat{Y} = 69.81 - 0.37CC - 20.56 \]

If H = 1 then:

\[ \hat{Y} = 69.81 - 0.37CC - 26.62 \]

Width of the origin is reduced by -26.62.

For Continuous commitment to see that there is a negative linear correlation between Continuous commitment and efficiency. Means relationship is not curved and as continuous commitment to increase the efficiency will be reduced. However, this inverse linear relationship between the levels of satisfaction is different; this difference is reflected in the following figure. As is clear in the figure below regression line of model based (low satisfaction) has a width of origin 69/8 that is greater than all; regression line average satisfaction with a lower 20/56 units located across the bottom of origin And regression line of high satisfaction with lower than average of 6 units under all the emphasis that related between continuous commitment and satisfaction is inversely.
Figure 6 - Diagram of the relationship between continuous commitment and employee efficiency affected by job satisfaction variables.
Therefore, continuous commitment has not the optimum point and its increase with decrease in efficiency is associated.

6 Conclusion

1 - The first and second hypothesis test result indicated that the increase of affective and normative commitment to a certain point, increasing efficiency employees. In research by Moody and colleagues (1974); Steers (1977) and Meyer and colleagues (1989) was conducted it was found that emotional commitment is positively related to job performance. If the commitment is in the lower limit could have a negative effect to continuity of service. Generally low level of commitment in the workforce, increase leave the service of they took. High absences, lack of desire to stay in the organization, poor quality work, and lack of loyalty to organization, Another negative consequence is that all these factors will reduce the performance and effectiveness of the organization. On the other hand, high levels of emotional and normative commitment to the organization may also limit growth opportunities and mobility of people and cut off The power of creativity and innovation and reduce flexible of organizations.

Strong commitment also cause tension in relations between people. Committed employees may lose their sense of identity. (Alienation), and also have not the ability to communicate with others (group alienation), Time and energy which people committed devote to the organization can be limiting unofficial relations. Thus, the negative effect of high levels of commitment to the organization and its members should be given more attention. Emotional and normative commitment to the optimal level that makes sense of belonging to the employees in terms of emotional and as ethically themselves bound to stay in the organization and doing their tasks this will provide certainty and confidence in the organization. And employee due to loyalty their favorites to organization, Demand the Institute to produce more and serve it up gladly accept. Thus the organization makes sure High levels of employee performance and full implementation Affairs.

2 - As mentioned, emotional commitment and normative commitment is necessary to the extent reasonably and optimize in organization. But the third hypothesis test result, it was found that there is an inverse relationship between the continuous commitments and staff efficiency. The research by Meyer and Allen (1986) and Allen and Smith (1987) and Meyer and colleagues (1989) was conducted demonstrate that continued commitment to be is inversely related to job performance.

Continuous commitment to the organizational members means that difficult for people to find work elsewhere Or the costly to leave the organization, are required to stay Organizations. And if provide position is more appropriate for them, They leave the organization without any emotional and psychological dependence to organization. This may be staff perform assigned duties and responsibilities from the compulsion to do and they have not Belong normative and emotional to the organization In which case it may have undesirable impact on employee performance. So should it be considered in the organization Position and working conditions will provide that Work in organization instead of state compulsion may be valuable for an employee.

3 - As a result, four and five-Six hypothesis testing, it was found that: Increase job satisfaction Cause Increase emotional and normative commitment, efficiency of staff have increased Thus makes optimal point to be transferred to a higher level. Other hand, the probability that people make better job position and leave the organization is the less, Means continuous commitment is reduced. Keith Davis and John Newstrom, suggest the relationship between commitment and performance and job satisfaction as a two-way relationship in an interconnected ring performance - satisfaction In this form that his satisfaction level effect to his commitment work And that also affect attempts eventually his performance. [10]
Thus suggests that the factors affecting job satisfaction in this study, such as promotions, job security, policies of performance evaluation, according to the working environment, such as the style of supervision, favorable conditions of work, authority and freedom of action and ... should be more attention. Especially considering that the lowest satisfaction in this research relating to service compensation items, It is suggested to amount of salary paid as well as the appropriateness of the amount of work done and salary and benefits.

Sources and References

1. [1] Azadvary, Mina, "Evaluation of the performance of women police personnel in Mashhad" (the perspective from the police command staff of Mashhad city)," Master's thesis, University Police, 1388.
intention among hospital employees, Health Services Management Research, Vol 21, N 4, Pp. 211-227


