

Employee and Fishery Enterprise Relationship: The Case of Mekong Delta, Vietnam

Tu Van Binh

School of International Business and Marketing, University of Economics Ho Chi Minh City

Abstract: Based on the survey qualified, a sufficient sample of 350 employees working at five fishery enterprises located in the Mekong Delta, Vietnam is employed. In order to identify how to meet employee's job satisfaction and loyalty, exploratory factor analysis (EFA) is used. Four factors extracted in EFA, leadership skill, payment, working environment, capacity building. With two alternative models used of multiple regression and logit, findings confirmed employees' job satisfaction is significantly impacted by leadership skill, payment, working environment, building capacity. This means that a good leader, attractive payment, good working environment conditions and policies concerning capacity building, significantly cause the increasing in the employee's job satisfaction. The leadership skill has the best positive influence on the job satisfaction, confirmed by two models. Additionally, two alternative models also find a statistically significant effect of job satisfaction on employee loyalty. An increase in job satisfaction derives a raise in employee loyalty.

Keywords: job satisfaction, employee loyalty, regression model

I. INTRODUCTION

Because employees are a great contribution to the organization's achievements, many authors have been interested in studying relationships between employees and employers (Coyle-Shapiro & Shore, 2007). Although human resources don't engage much in making direct decisions to market as competitive strategies, it is fundamental to alter people to be involved that. Once employees are happy for what happening at present in the organization, they may work harder, increase productivity and bring benefits to that organization. Studies with respect to employees and organizations can be expressed by job satisfaction, which it means how much the employee satisfied there he or she is working. There are many articles relating to the subject of job satisfaction, which has been perhaps the most widely studied work orientation over the last four decades in organizational management (Currivan, 1999). Job satisfaction derived from one's attitude and behavior. Argued by O'Reilly and Chatman (1986), three forms, such as compliance, identification, and internalization are the bond of relationship between employee and organization. Which compliance measures employee's behavior to meet requirements of the organization, identification means employee's behavior toward maintaining a relationship with organization, because of its attractive goals, even though the values or goals may not be personally adopted. Internalization reflects employee's behavior driven by internal values or goals that are consistent with those of the organization.

Locke (1976) showed that job satisfaction is related to other forms of behavior such as job absences and mental and physical health. Further, analysis of Freeman (1978) clearly points out that job satisfaction is a major determinant of labor market mobility. There are three components of employee satisfaction, characteristics of organization, job task, and personal characteristics (Rousseau, 1978).

According to Moyes et al. (2008), job satisfaction is described as how pleased an employee is with her or his position of employment while satisfaction denote positive emotions toward a particular job, organizational commitment is the degree to which an employee feels loyalty to a particular organization (Mueller, et al., 1992; Price, 1997). Therefore, Once employee feels happy at where he or she is working, it can be more loyal and productive (Hunter and Tietyen, 1997). As a result, both firm and employee can get win-win, so policies taking care of employees need to be focused more on the employee, because, an increase in employee's benefit causes a raise in the firm productivity (Potterfield, 1999).

The purpose of this study is an extent application for Vietnamese fishery enterprises to investigate how far micro and macro concepts of the enterprise affect job satisfaction. In addition, an analysis the relationship between employee loyalty and job satisfaction is also taken into account.

II. OVERVIEW LABOR MARKET IN VIETNAM

Fast changes in Vietnam's economy for current years generate a dynamic labor market. Large size companies, particularly foreign ones, pay very much attention to skilled labors, due to financial capacity. Because of competitive market, not only product quality, but also people, Vietnamese enterprises have realized more a great labor force contribution to strengthening competitive strategies. Since Vietnam is a member of the World Trade Organization, Vietnamese fishery companies have more chances to enter international markets, also pay more attention to improving competitive ability, so the demands of consultancy and management re-organization, competitive strategy based on good persons are considered. Small size companies or companies with limited financial capacity usually have problems to recruit employees, because they can't bear a high salary to the skilled labor for a long time, while large size companies could manage that.

Due to positive and fast growth rate of fishery sector in Vietnam for current years, there is a big movement in the labor market, which the employee usually wants to seek a good place with a great payment, exciting environment conditions, building capacity policies. May be said that Vietnam as a mature tiger country contributes to common development of ASEAN and integrates the world market more and more, but the global crisis has have some bad impacts on Vietnamese economy. According to the Vietnam Ministry of Labor, Invalids and Social Affairs, in 2009 more than 50% of urban labors have been facing unemployment risk, and untrained workers making up 62% of the total number of workforce it finds hard to get stable jobs.

In general, the unemployment rate in Vietnam is an upward trend for the last few years, due to the crisis situation. Evidently, the unemployment rate in 2012 was 2%, up to 6.4% in 2013. The unemployed employees mostly belong to sectors. If thinking of the skilled labor market, at present in Vietnam the labor demand for the skilled labor exceeds supply. Many companies could not keep the skilled labor for a long time if they do not concern to improve policies meeting the labor's expectation, such environment, payment, etc.

Shortly, studying job satisfaction and employee loyalty is indispensable by which the paper wants to investigate employees' characteristic toward job satisfaction. Findings will be quite helpful and an important contribution to Vietnamese companies with the same sector to better reform their human resource management.

III. CONCEPT OF JOB SATISFACTION AND LOYALTY

A. Job satisfaction

In order to measure job satisfaction of employees, some authors are using statistical models. Such Borjas (1979) and Bartel (1981) measured job satisfaction based on regression. Accordingly, job satisfaction is usually defined as some function of the individual's full wage F , which is the sum of the money wage, W , and the monetary equivalent of non-pecuniary aspects of the job, N (see (1)).

$$F = W + N \quad (1)$$

According to Borjas (1979), job satisfaction will be defined as a monotonic transformation of the full wage for individuals with a vector of characteristics X . That is, $S = S(F, X)$, where $\partial S / \partial F > 0$. The variables in the vector X may be composed of variables that only affect measured job satisfaction without any effect on the full wage, or they may be composed of variables that both affect the full wage and have a direct effect on measured job satisfaction. Shortly job satisfaction is as a monotonic transaction of the full wage for individual with a vector of characteristics, X .

$$S = a_0 + a_1W + a_2X \quad (2)$$

where the coefficients on the variables in vector X would then measure the effects of the variables on the non-pecuniary component (N) of the job and/or their direct effects on job satisfaction. Based on (2), increases in positive coefficients of W and X cause a rise in job satisfaction (S).

B. Loyalty

Employee loyalty can be measured by time that an employee really exposes her or his loyalty to stay at the same enterprise as long as possible. Once working at the same enterprise longer, the employee feels like part of a family or team. This creates very valuable assets to organizations. To maintain the employee loyalty, many enterprises built up programs, such as team building, to strengthen the working relationship of the employees with the organization. Once the organizational commitments to labor are processed, levels of employee loyalty are enhanced and lead to outcomes that are beneficial to the enterprise. In sum, employee loyalty is a manifestation of organizational commitment.

The backbone of employee loyalty is with respect to workers and the job they perform. Actually, the employee intents to stay at the same company for a long time, only she or he satisfies what the company meets her or his expectation (Truc, 2010), consisting of pecuniary and non-pecuniary. In every interaction with management and leadership, employees should be treated with courtesy and interest. It is important that organizations take actions to manage the strength of their relationships with employees, actions that increase organizational commitment and loyalty.

IV. METHODOLOGY

A. Extended model for employee satisfaction

In order to extent the application of model (2), two alternative models are concerned in case, e.g. multiple regression model (3) and logit model (4), with which contribute into avoiding bias.

For multiple regression model

$$Y = \alpha_0 + \alpha_1 X_1 + \alpha_2 X_2 + \dots + \alpha_k X_k \quad (3)$$

where Y is a dependent variable measured by a five point scale from 1 (unlikely) to 5 (likely). X_1, X_2, \dots, X_k are independent variables. They are derived by factor analysis, which is mentioned in the next session. Coefficients of $\alpha_0, \alpha_1, \alpha_2, \dots, \alpha_k$ (α_0 is intercept) are unknown parameters and will be estimated.

For logit model, it is depicted in (4) and (5).

$$\text{Logit } [P(Y \geq j|X)] = p_i(X) + \dots + p_j(X) \quad (4)$$

In general, the cumulative logit for k independent variables can be written as 1

$$\begin{aligned} \text{Logit } [P(Y \geq j|X)] &= \frac{\log P[(Y \geq j|X)]}{1 - \log P[(Y \geq j|X)]} \\ &= \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \dots + \beta_k X_k \end{aligned} \quad (5)$$

where $j = 1, \dots, J-1$, represent the category of response and j is the number of categories of responses. P presents the probability of being satisfied with the job. X is a vector of explanatory variables that are independent variables measured by the same value to model (3). $\beta_0, \beta_1, \beta_2, \dots, \beta_k$ (β_0 is intercept) are unknown parameters and will be estimated, which the intercept in the regressed logistic models indicates increasing levels of the employee satisfaction (scaling scores), i.e. probability of each level of the satisfaction (satisfy $\geq j$), given explanatory variable, increases in j and the logit as an increasing function of this probability. Y is a categorical variable and j represents for values of the Likert scale, representing the five point scale from 1 to 5, representing the responses from “strongly dissatisfied” to “strongly satisfied”, the fixed threshold $j = 4$ exhibits employee satisfaction. At $j = 4$, the response curve is a logistic regression curve for a binary response with outcomes $Y \geq 4$ and $Y < 4$, and we can get the estimated cumulative probability P of the employee satisfaction to calculate marginal effects of continuous explanatory variables. For dummy variables (say, D), marginal effects are difference between $P(Y \geq 4|D = 1, \text{ given other variables})$, and $P(Y < 4|D = 0, \text{ given other variables})$ (Duc, 2008).

B. Extended model for loyalty

Similarly, two alternative models concerned in this session are regression and logit model.

For regression model shown as follow

$$L = \gamma_0 + \gamma_1 Y \quad (6)$$

where L presents the loyalty of employee, which is a dependent variable measured by the value of a five point scale from 1= unlikely intent to stay at the company longer to 5 = likely intent to stay at the company longer. Y presents the employee satisfaction as mentioned above. γ_0 (intercept), γ_1 are unknown parameters and will be estimated.

Logit regression model is depicted in (7)

$$\text{Logit } [P(L \geq j|Y)] = \frac{\log P[(L \geq j|Y)]}{1 - \log P[(L \geq j|Y)]} = \pi_0 + \pi_1 Y \quad (7)$$

π_0, π_1 (π_0 is intercept) are unknown parameters and will be estimated, which the intercept in the regressed logit models indicates increasing levels of the employee loyalty (scaling scores), i.e. probability of each level of the loyalty (loyal $\geq j$), given explanatory variable, increases in j and the logit as an increasing function of this probability. Like model (5), L is a categorical variable and j represents for values of the Likert scale, representing the five point scale from 1 to 5. The fixed threshold $j = 4$ exhibits employee loyalty. At $j = 4$, the response curve is a logit regression curve for a binary response with outcomes $Y \geq 4$ and $Y < 4$, and we can get the estimated cumulative probability P of the employee loyalty to calculate marginal effects of continuous explanatory variables. For dummy variables (say, D), marginal effects are difference between $P(Y \geq 4|D = 1, \text{ given other variables})$, and $P(Y < 4|D = 0, \text{ given other variables})$.

C. Data collection

The empirical analysis utilizes data from the survey conducted in five fishery companies located in the Mekong Delta, Vietnam. Because of requirements of those five fishery enterprises, their names are not allowed to be mentioned here. Before obtaining the final research, a pilot survey was conducted, which is to look for a completely final questionnaire. The research was conducted during June to October, 2014s. Respondents interviewed who are working in those five fishery enterprises. Questionnaire was an official help of five enterprises mentioned above, which hard copies are delivered to employees and pick up back by someone working in human resource division of the enterprise. However, after qualifying database, 350 questionnaires are sufficient. Respondents selected must have at least one year working at the company.

V. EMPIRICAL RESULTS

There are 21 variables designed in the factor analysis. Respondents are asked to rate those 21 variables on a five point Likert scale, with (1) being “unlikely”, (5) being “likely”. On the basis of Bartlett test (Sig. = 0.00), and Kaiser-Meyer-Olin Measure of Sampling Adequacy (KMO = 0.848) presented in table 1. As a result, there are underlying factors in the variables.

Several different types of factor analysis are concerned to reduce bias information from a large number of variables to a smaller number of factors. Of which principal components analysis (PCA) (Hair, et al., 2006) is used. As presented in table 2, four main factors extracted from twenty one factors (not mentioned here, due to the saving of page), and account for 64.85%

of total variance explained. As a result, the methodology of factor analysis is appropriately used, due to the main four factors are statistically high representative.

The first factor is referred to as “leadership skill”. The second factor, referred as “payment”. The third factor and the fourth factor can be called “working environment” and “capacity building”, respectively. In order to test internal consistency of factors loaded, Cronbach’s Alpha (Cronbach, 1995) is used as a measurement of reliability. A level of alpha is accepted when its traditional value is 0.70 or higher, which four factors loaded meet requirement of reliability, because of Cronbach’s alpha of those four factors above 0.70. Conclusion is four factors are reliable and significantly existing.

Table.1 KMO and Bartlett’s Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.848
Bartlett's Test of Sphericity	Approx. Chi-Square	1.529E3
	df	435.00
	Sig.	0.000

Table.2 Rotated Component MATRIX^A

	Component/Factor			
	Leadership skill	Payment	Working environment	Capacity building
Skilled labor concerned	.852	.112	.110	.232
Friendly leadership	.852	.134	.003	.110
Skilled leadership	.829	.053	.237	.214
Stimulating creation of staff	.802	.131	.099	.103
Staff has voice and requirement	.785	.181	.014	.051
Dynamic leadership	.782	.230	.066	-.028
Fair evaluation presented by the company	.735	.088	.085	.316
Insurance policy of company	-.030	.678	.317	.161
Paid by work and non-work	.385	.668	.163	.180
Increase in income	.276	.645	-.079	.071
Supported costs (e.g. per diem)	.295	.593	.200	.089
Health care	-.128	.558	.466	.212
Paid extra one salary month in the end of year	.178	.547	.201	.234
Working conditions	.100	.170	.869	.183
Safety and cleanness	.154	.250	.867	.014
Standard working office	.184	.155	.856	.113
Trained in local country	.062	.439	.112	.692
Supported tuition fee	.205	-.110	.097	.689
Internal seminar organization at company	.262	.126	-.075	.653
Going to abroad for excursion and Conference	.091	.317	.207	.642
Trained in abroad	.077	.386	.206	.623
Percentage of Variance (%)	24.317	14.363	13.680	12.491
Cronbach’ Alpha Test	.924	.784	.890	.766

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

^a. Rotation converged in 6 iterations

Leadership skill is good if the leader’s characteristics are friendly, open-hearted, knowing how to take care of individual’s talent and to stimulate individual’s creation, and dynamic. As argued by (Crossan, Vera, & Len, 2008), leadership is an influencing process between leaders and the employees and sometimes the roles are changed between them. Once management cannot meet all of what employees are expecting, boring reasons of the employee can be exposed. Consequently, firm performance is reduced.

Payment refers to all forms of salary or rewards given to employees. An employee will be loyal for the company if it feels satisfied for its remuneration and compensation. Some authors mentioned that a compensation of an employee consists of mainly components such as paid fairly, wage competitive, and business costs meet the expectations of employees (Borjas, 1979; Freeman, 1978).

Recent study by (Hamermesh, 2001) has argued that *working environment* and job satisfaction are systematically related to basic individual characteristics, and that these relationships lend themselves to intuitive economic explanations. Some people claim they work well in a high-stress environment. They mentioned that their productivity is highest when they are fully relaxed. Good working environment includes working room standards, safe working environment, and working conditions.

Capacity building is of what employees can be satisfied by education program granted by the company, they may have good chances to be trained in local region or/and foreign countries. Besides, the employees can be shared by their colleagues' experience and professional.

Determinant of employee's job satisfaction

Based on two alternative models (3) and (5), estimated results are shown in table 3. Both of models have R-square above 60%, meaning that the dependent variable is explained by above 60% information of the main four factors, consisting of leadership skill, payment, working environment, capacity building in each models.

Coefficients in two alternative models are significant at any level and positive. Conclusion, there are evident relationships between job satisfaction and the main four factors, e.g. leadership skill, payment, working environment and capacity building and the dependent variable "job satisfaction". As a result, a good leader, attractive payment, good working environment conditions and policies concerning capacity building, all concerned in the company significantly causes the increasing in the employee's job satisfaction, in which the leadership skill is the best impact on job satisfaction. The working environment is as the second important position influencing job satisfaction. Both of those two factors are affirmed in both of alternative models.

Table 3: Estimate Results of Two Alternative Models

Variables	Regression $y = \alpha_0 + \alpha_1x_1 + \alpha_2x_2 + \alpha_3x_3 + \alpha_4x_4$		Logit $\log\left(\frac{P}{1-P}\right) = \beta_0 + \beta_1x_1 + \beta_2x_2 + \beta_3x_3 + \beta_4x_4$	
	Coefficient	Std. Error	Coefficient	Std. Error
Constant	3.222	0.056***	-1.580	0.572***
X ₁ : Leadership skill	0.619	0.056***	2.722	0.308***
X ₂ : Payment	0.263	0.057***	1.093	0.334***
X ₃ : Working environment	0.269	0.056***	0.931	0.300***
X ₄ : Capacity building	0.188	0.056***	0.904	0.389***
R-Square	R ² = 0.614		Nagelkerke R ² = 0.624	

Note: ***significant at 1%

Determinant of employee loyalty

As documented previously, employee loyalty is defined as employees being committed to the success of the organization. He or she thinks that the enterprise likes home and its best option to sacrifice. An increase in loyalty causes an increase in production (Hunter and Tietzen, 1997). Employee satisfaction can impact on the loyalty and organizational productivity (Potterfield, 1999). In order to find out further the case of Vietnamese companies, model (2) and (3) are extended to be applied to identify how relationship between the employee's job satisfaction and the employee loyalty. Of which, the dependent variable is measured by employee loyalty and the independent variable by employee's job satisfaction measured by a five point scale.

Similarly, two alternative models are estimated and resulted (table 4). To regression model, employee loyalty is identified by the question "you intent to keep working in the same company for a long time?" with the five point scale from 1 (strongly disagreed) to 5 (strongly agreed).

Table 4: Alternative Models of Employee Loyalty

Variables	Regression $L = \gamma_0 + \gamma_1Y$		Logit $\log\left(\frac{P}{1-P}\right) = \pi_0 + \pi_1Y$	
	Coefficient	Std. Error	Coefficient	Std. Error
Constant	-0.124	0.184	-14.583	0.563***
Y: Job satisfaction	1.003	0.053***	4.066	2.023***
R-Square	R ² = 0.694		Nagelkerke R ² = 0.759	

Based on results estimated by two alternative models in table 4, there is an evident relationship between employee loyalty and job satisfaction. This means that an increase in job satisfaction significantly causes an increase in employee loyalty in both of two alternative models, due to a positive coefficient of job satisfaction.

VI. CONCLUSION

As resulted in both of multiple regression and logit models, four factors extracted, leadership skill, payment, working environment, capacity building, derive significant relationships with job satisfaction. Accordingly, those factors have a statistical significant and positive impact on job satisfaction, in which the leadership skill plays the most important role. Therefore, if a company wants to meet job satisfaction of the employee, the manager or the director should be educated in necessary skill, such as soft skill, friendly relationship with its staffs, and dynamic for solved problems, in particular knowing how to encourage and stimulate the staff's creation and to facilitate the staff presenting its voice. The second important factor known as the working environment that has been not glanced in the company, because the finding is also reported, the better the working environment, the more satisfaction for the employee.

Similarly, two alternative models are concerned to investigate how relationship between job satisfaction and employee loyalty is. The result presents a statistically significant and positive impact of job satisfaction on employee loyalty. This finding is suitable for practice, because if the employee get much satisfaction from where he or she is working, it surely intends to stay at the same company to work for longer. In short, in order to reach employee loyalty, the company, at first, must meet the employee's job satisfaction.

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