Job Satisfaction in the Structural Steel Detailing Industry, Philippines

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Abstract

Job satisfaction differs from one industry to another and more so from an individual to the other. Thus this study examined the level of job satisfaction of the management and operational employees along intrinsic, extrinsic and general job satisfaction areas in the Structural Steel Detailing Industry, Philippines. Specifically, this paper sought to determine 1) the significant differences on intrinsic, extrinsic and general job satisfaction when respondents are grouped along gender, age, educational attainment and tenure of work; and 2) the significant relationship between age, educational attainment, and tenure of work with job satisfaction. The latter proposed a hypothesized relationship stated as 1) the older or younger the employee, the higher or lower the job satisfaction, as the case may be; 2) the higher or the lower the educational attainment, the higher or lower the job satisfaction of the employee; and 3) the longer or the shorter the years of service to the company, the higher or the lower the job satisfaction of the employee. A survey of twenty (20) employees was conducted using the Minnesota Satisfaction Questionnaire (MSQ) – Short Form to measure job satisfaction. Results showed an average job satisfaction of the employees, which means that they perceive themselves to be satisfied with their job. Further, that neither significant differences nor relationship was found on intrinsic, extrinsic and general job satisfaction when the respondents were grouped along gender, age, educational attainment and tenure of work. Essentially, findings were discussed in relation to the existing literature on the influence of demographic variables on job satisfaction.

Keywords: general job satisfaction, intrinsic, extrinsic, structural steel detailing

Introduction

People are the greatest strength of the organization. They are the lifeblood of the company in order to increase asset and profit. They are also the vehicle in order to run the different negotiations and transactions that a company operates. Therefore, humans as resources or assets are indispensable, thus investing in human capital in an organization is essential. Yet Schuler and MacMillan (1984) cited that many companies missed to take advantage of human resource practice initiatives in order to achieve competitive advantage.
Investment in human capital can take in the form of fair compensation, training and development and other effective human resource system practices. Through these, the assurance that employees would stay have been affirmed by a number of studies. Recently, the study of J. Gabriel, L. Gabriel and Nwaeke (2015) revealed that a positive relationship exists between employees’ performance and 1) recruitment/selection; 2) compensation/reward; 3) training/development, amongst 103 respondents in the banking industry in Nigeria. A similar study was done by Hong, Hao, Kumar, Ramendran and Kadiresan (2012) that showed a significant relationship between the factors of training and development, compensation and appraisal on University of Y lecture’s retention amongst 278 individuals.

From a different standpoint, several researchers and practitioners alike also looked into the concept of job satisfaction as a determining factor to employees’ likelihood of staying in the company. Job satisfaction is defined as a pleasurable feeling that results from the perception that one’s job fulfils or allows for the fulfilment of one’s important job values (Locke, 1976 as cited in Noe, Hollenbeck, Gerhart, & Wright, 2006). This definition projects three significant features of job satisfaction namely: 1) function of values that what a person consciously or unconsciously desires to obtain; 2) that which values are important, since different employees have not the same views of which values are important; and 3) perception. People perceive differently and reality may be interpreted in every way (Noe et al., 2006).

Job satisfaction can also be seen as a person’s emotional response to aspects of work such as pay, supervision, and benefits. Literally, job satisfaction is the extent to which an individual is content, feels positive or negative about a job; person’s pleasure, joy and evaluation gains from his or her work (French, 2007; Ghasemi & Najafabady, 2014; King, 2011; McShane & Von Glinow, 2010; Schermerhorn, 2011).

It is essential that an employee experiences job satisfaction. If an employee is satisfied with what s/he is doing, then most likely s/he would stay in the company. But when an employee is no longer satisfied, there is a tendency to leave the organization. Therefore, a company experiences turnover when an employee resigns from work permanently (Cascio, 2010). In response, psychologists at work aim to improve the well-being (happiness and satisfaction) of employees and to improve their productive contributions to the business (Lahey, 2009).

Based on the foregoing, this study aimed to determine the level of job satisfaction of the management and operational employees along intrinsic, extrinsic and general job
satisfaction areas. Further, the paper sought to determine the significant differences on intrinsic, extrinsic and general job satisfaction when respondents are grouped along gender, age, educational attainment and tenure of work. And, to determine the significant relationship between age, educational attainment, and tenure of work with job satisfaction.

Background of the Study

In the field of structural steel detailing, the reason for staying in the company is not evident. Structural steel detailing is a paramount aspect in processing all types of construction activities such as commercial and industrial buildings. It is a profession for the conscientious, orderly or systematic person who is caliber oriented and does the job that s/he can on a procedural basis. Most of the detailers are high performers and they are paid by the hour. The salary of the detailers is higher than what is expected and mandated by the labor code. Despite this, turnover is being experienced in the industry.

The emotion of employees maybe a factor for not staying in the company due to the extreme time of work, flexibility of time to the family and the pressure in meeting the deadlines for the submission of drawings to the fabricators. In addition to that, the shifting of work may not be good for some employees to be on duty during graveyard shift. Probably something is lacking to satisfy employees needs and wants. Another factor possibly is the age of the employee wherein they can easily decide to transfer into another detailing company in the industry. The reasons for this matter maybe the approach to employees towards work and their control of feelings and emotions in confronting things related to accuracy of the job.

Therefrom, a structural steel detailing company that this research looked into was the only company that is found in Tublay, Cordillera Region, Province of Benguet, Philippines. The organization is still an up and coming company since its inception in 2012. Currently, the company has a positive bottom-line, meaning thriving even though there are a lot of competitors inside and outside of the country. The organization produces shop drawings for the small, medium, large scale jobs and can meet the most demanding time frame schedules. Each employee is trained to do two-dimensional (2-D) on IntelliCAD structural detailing software for the reproduction of drawings. Employees are well equipped to detail design plans and drawings for columns, beams, braces, trusses, stairs, handrails, joists and metal decking that are used in the construction of buildings. Detailers are able to produce high quality steel drawings for structural steel detailing
services. Indispensable factors in producing accurate details are good checking of drawings, speed and accuracy in order to satisfy clients or steel fabricators.

Hence, in the light of this research, the structural steel detailing industry became the domain of the study on job satisfaction.

**Conceptual Framework and Review of Literature**

A number of theories can provide a theoretical foundation for job satisfaction, however the most notable of which is the two-factor theory by Frederick Herzberg (R. Denhardt, J. Denhardt, & Aristigueta, 2002). The two-factor or motivation-hygiene theory delineates the factors of the job that motivates or satisfies as compared to those that simply prevent dissatisfaction but neither motivate nor satisfy. Accordingly, motivating or intrinsic factors are linked with the nature of the work itself - achievement, recognition, challenging work, responsibility, and growth that when present will provide job satisfaction to workers. The rest such as pay or working conditions, supervision, interpersonal relations, status, and security are relegated as hygiene factors that do not motivate but prevent dissatisfaction (Denhardt et al., 2002).

In support, Dawis (1992) also referred to intrinsic factors as the elements inherent to the job itself while extrinsic pertains to the conditions attached while doing the job: remuneration, fellow workers, and managers.

The study of Wernimont (1966) concluded that both intrinsic and extrinsic factors can be sources of both satisfaction and dissatisfaction however, intrinsic factors alone presented both satisfying and dissatisfying conditions. Intrinsic factors like achievement, work itself, and responsibility were noted as satisfying situations while lack of advancement and recognition were mentioned as dissatisfying situations. Further, satisfaction variables do not carry unidirectional effects and workers perception strongly influences the extent of satisfaction on job factors (Wernimont, 1966).

Likewise, a person’s overall feelings about work and the work organization is referred to as general job satisfaction. Other factors though may be considered as affecting employees’ feelings but the job naturally links a person to his/her employing organization. As a result, a person’s job has some effect on feelings of overall job satisfaction (Champoux, 2011). Consequently, a person’s satisfaction may not impact much on a company’s performance but when aggregated with other colleagues, who are equally satisfied, the influence on performance in many ways make a difference (Bateman & Snell, 2013).
Interestingly, on behalf of the American Psychological Association (2012), the Harris Interactive conducted online Workforce Retention Survey amongst 1,240 adults US residents aged 18 and older who are employed either full time or part time. Results showed that majority of the Americans who are working said that they stay with their present employers because of benefits (60%) and pay (59%), work-life fit and enjoying what they do (67% each) topped the list of reasons why they remain.

In the field of structural steel detailing, it is necessary to determine if there are significant differences on intrinsic, extrinsic and general job satisfaction when the respondents are grouped along gender, age, educational attainment and tenure of work. The end in mind is to assess what makes employees satisfied - either intrinsic or extrinsic and the general job satisfaction.

Moving on, in line with gender, Carrillo-Garcia, Solano-Ruiz, Martinez-Roche and Gomez-Garcia (2013) found that a large chunk of health care professionals in the study have higher levels of job satisfaction in women more than men. Linz and Semykina (2013) based on their study of 9,400 employees in over 600 workplaces, found that women derived job satisfaction both from extrinsic and intrinsic rewards, but for men only intrinsic rewards is found to be positively associated with job satisfaction.

Similarly, Khalid, Salim, Loke and Khalid (2011) showed that females experienced greater overall job satisfaction than males in Malaysian utility sector with a total of 689 employees. Moreover, gender of Indian overseas bank employees significantly influences their job satisfaction perception (Neelamegam, 2010). In addition, Neelamegam (2010) found that the job satisfaction perceived by the Indian bank employees tend to be average.

Rast and Tourani (2012) suggested that employees are satisfied moderately with their job and in terms of gender with job satisfaction, there was no significant difference between male and female employees' of three private airline companies in Iran. Similarly, Yazici and Altun (2013) found no significant difference on job satisfaction between male (192) and female (116) instructors' working at various titles at different universities. Likewise, gender did not significantly influence bank employees job satisfaction in Bangladesh (Hossain, 2014).

Recently, Hossain (2014) conducted a study to evaluate the job satisfaction of private and public bank employees in Bangladesh. The study showed that the bank officers overall job satisfaction was at the positive level. The job satisfaction was also
significantly influenced by organizational factors such as fairness, pay, working conditions, and promotion (Hossain, 2014).

$H1$: There is a significant difference on intrinsic job satisfaction when the respondents are grouped along gender, age, educational attainment and tenure of work.

$H2$: There is a significant difference on extrinsic job satisfaction when the respondents are grouped along gender, age, educational attainment and tenure of work.

$H3$: There is a significant difference on the general job satisfaction of the respondents when the respondents are grouped along gender, age, educational attainment and tenure of work.

Age did not significantly influence bank employees’ satisfaction in Bangladesh (Hossain, 2014). This is seconded by the study of Ghazzawi (2011) who used the Minnesota Satisfaction Questionnaire "MSQ" short form to examine the effects of age on job satisfaction. His study showed that age did not play a role in job satisfaction among 132 IT professionals in various Southern California organizations. Similarly, Sarker, Crossman and Chinmeteepituck (2003) research result indicated that employee age is not significantly associated with overall job satisfaction level. Likewise, Petty, Brewer and Brown (2005) demonstrated no significant relationship between age and job satisfaction among employees at the youth development organization.

$H4$: The older the employee, the higher the job satisfaction or the younger the employee, the higher the job satisfaction.

Following an era of riots and judicial intervention, a research was explored by Jurik, Halemba, Musheno and Boyle (1987) to assess the impact of professionalizing the prison security staff/ correctional officers by increasing their educational attainment in line with job satisfaction. Analyses were done along three competing expectations regarding the relationship between educational attainment and job satisfaction: (1) higher education increases job satisfaction; (2) higher education leads to greater dissatisfaction; and (3) work environment negates the importance of worker educational background. Results showed that educational attainment is found to be negatively associated with correctional officer job satisfaction even when other important determinants are held constant. Likewise, Petty et al. (2005) found no significant differences between education and job satisfaction.
**H5**: The higher the educational attainment, the higher the job satisfaction or the lower the educational attainment, the lower the job satisfaction of the employee.

The study of Sarker et al. (2003) yielded a significant association between employee tenure and overall job satisfaction level. Also, results found significant relationship between tenure and facets of satisfaction (job, pay and fringe benefits), but this result has a significant bearing on the age of respondents (Sarker et al., 2003). Likewise, Indian overseas bank employees in terms of experience significantly influence the job satisfaction perception (Neelamegam, 2010). Similarly, Petty et al. (2005) found no relationship between company tenure and job satisfaction.

**H6**: The longer the years of service to the company, the higher the job satisfaction or the shorter the years of service to the company, the lower the job satisfaction of the employee.

The conceptual framework (Figure 1) has been established in conformance to the research objective generalized for this study.

**Independent Variable**

Profile of Respondents
- gender
- age
- educational attainment
- tenure of work

**Dependent Variable**

Job Satisfaction
- intrinsic
- extrinsic
- general satisfaction

**Figure 1.** The Research Framework

Based from the discussion above (Figure 1), H1, H2 and H3 represent the tests of significant differences on intrinsic, extrinsic and general job satisfaction when respondents are grouped along gender, age, educational attainment and tenure of work.

Furthermore, H4, H5 and H6 demonstrate the significant relationship between age, educational attainment, and tenure of work with job satisfaction. The latter proposed
a hypothesized relationship stated as 1) the older or younger the employee, the higher or lower the job satisfaction, as the case may be; 2) the higher or the lower the educational attainment, the higher or lower the job satisfaction of the employee; and 3) the longer or the shorter the years of service to the company, the higher or the lower the job satisfaction of the employee.

**Materials and Methods**

The study focused on job satisfaction in the structural steel detailing industry. The researchers used quantitative method to attain the objective of this study. A tried and tested questionnaire (*Minnesota Satisfaction Questionnaire (MSQ) – Short Form*) – developed by Weiss, Dawis, England and Lofquist (1977) was used in order to determine the job satisfaction of the management and employees and to answer the problems of the research study. The validity and reliability of the questionnaire were already tested since many research were done in scholarly journals that used the instrument. Permission was sought from the authors to use this questionnaire. An email was sent to the Vocational Psychology Research, University of Minnesota (vpr@umn.edu). The use of the questionnaire had been granted and paid through cashier’s check. After payment and order done, they emailed a copy of the permission letter granting to reproduce the measure. An assurance was given that all information specific to the individual would be kept confidential and the information would be used only as a group aggregate.

The respondents of this study were the employees and management of structural steel detailing industry in the Cordillera Administrative Region, Province of Benguet, Philippines. The rationale behind is that one of the researchers is a resident in this area for six years and counting. The focal target area was the structural steel detailing industry as the said researcher is already familiar with the nature of work because of exposure for more than fourteen (14) years in the field of steel detailing that led to the interest to study the employee job satisfaction in this industry.

In particular, the area of study is located at Tublay, Benguet. It is the only structural steel detailing company in this industry in the Province of Benguet, Philippines. The company caters to the people of the province to provide work and develop skills in this kind of business. The company started on February 01, 2012. The company has been
in existence for four (4) years and still in the process of surviving in the field of steel detailing.

The statistical analysis was done by the Research Statistical Services of Saint Louis University – Baguio City, Philippines. The primary data collected from the target respondents applied descriptive, t- test, Pearson r, and simple-linear regression analysis.

**Results and Discussion**

Level of Job Satisfaction of the employees

Table 1.

*Level of Job satisfaction of the Structural Steel Detailing Employees*

<table>
<thead>
<tr>
<th>Aspect</th>
<th>Weighted Mean</th>
<th>Qualitative Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intrinsic</td>
<td>3.66</td>
<td>Satisfied</td>
</tr>
<tr>
<td>Extrinsic</td>
<td>3.53</td>
<td>Satisfied</td>
</tr>
<tr>
<td>General</td>
<td>3.63</td>
<td>Satisfied</td>
</tr>
</tbody>
</table>

It is seen from Table 1 that the employee-respondents on the average, perceived themselves to be satisfied with their job in the structural steel detailing industry along the intrinsic, extrinsic, and general aspects as indicated by the computed weighted means for each. This corroborates the study of Neelamegam (2010) which found an average level of job satisfaction amongst bank employees. Also the study of Hossain (2014) affirmed that bank employees have an overall job satisfaction was at the positive level.

Difference in perceived Level of Job Satisfaction on the Intrinsic, Extrinsic and General Job Satisfaction aspects
Table 2.

Summary results of analysis on the difference in perceived level of intrinsic job satisfaction along gender, age, educational attainment, and tenure of work.

<table>
<thead>
<tr>
<th>Factor/Variable</th>
<th>Test Statistic</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>t statistic = -0.611; p = 0.549</td>
<td>Not Significant</td>
</tr>
<tr>
<td>Age</td>
<td>Pearson r = 0.338; p = 0.145</td>
<td>Not Significant</td>
</tr>
<tr>
<td>Educational Attainment (in terms of number of years of schooling completed)</td>
<td>Pearson r = 0.277, p = 0.237</td>
<td>Not Significant</td>
</tr>
<tr>
<td>Tenure of Work</td>
<td>Pearson r = -0.196, p = 0.407</td>
<td>Not Significant</td>
</tr>
</tbody>
</table>

The analysis results presented in Table 2 above indicated that there is no significant difference in intrinsic job satisfaction between the male and the female employees. The computed t value of -0.611 showed a corresponding p-value of 0.549 (p > 0.05) indicating that there is no significant difference between the two groups. This result implies that the employee’s intrinsic job satisfaction is independent of the employee’s gender. An employee’s gender does not determine his or her level of intrinsic job satisfaction.

The age of the employees was considered as a factor for the employee’s intrinsic job satisfaction level. The Pearson correlation analysis however showed that age and intrinsic job satisfaction are correlated to each other at a moderately strong level, as indicated by the obtained correlation coefficient of 0.338. This moderately strong correlation between age and intrinsic job satisfaction turned out to be insignificant indicated by the obtained p-value of 0.145 (p > 0.05). This result would imply that the employee’s intrinsic job satisfaction level does not depend on the age of the respondents (also indicating that there is no significant difference in intrinsic job satisfaction among employees classified according to age).

Considering the respondent’s educational attainment, in terms of the years of schooling completed, all have completed college, except for one (1) who was able to
reach high school education. In this regard, Pearson’s correlation analysis using the respondents perceived level of satisfaction and their year of schooling was performed. A correlation coefficient of 0.277 was obtained indicating a weak relationship between employee’s years of schooling and perceived intrinsic job satisfaction level. The test of significance shows that perceived intrinsic job satisfaction level is not related to, or does not depend on, the years of schooling completed. This is so since the computed p-value for the analysis is 0.237 (p > 0.05). This result then implies that the intrinsic motivation level of the employees is not determined based on their years of schooling and also would indicate that there is no significant difference in the intrinsic motivation of the employees when they are classified according to the educational attainment indicated by the number of years of schooling. It would not mean that a person with the most number of years spent studying, or the person with the highest educational attainment, would have the highest level of intrinsic job satisfaction.

With regard to the employee’s tenure of work, in months, Pearson correlation analysis showed a weak, negative, correlation between the employee’s intrinsic job satisfaction and their tenure of work, indicated by the computed correlation coefficient of –0.196. The test of significance further indicates that there is no significant relationship between employee’s tenure of work and the intrinsic job satisfaction based on the obtained p-value of 0.407 (p > 0.05). The results imply also that the employee’s intrinsic job satisfaction is not dependent on the employee’s tenure. There is no significant difference in the employee’s intrinsic job satisfaction when they are classified according to tenure of work.

Furthermore, just like the results along the intrinsic job satisfaction, the extrinsic and general job satisfaction aspects also found no significant differences along gender, age, educational attainment, and tenure of work. As regard to the result in terms of gender groupings, this is corroborated by the study of Hossain (2014); Rast and Tourani (2012); and Yazici and Altun (2013) that there was no significant relationship between gender and job satisfaction.

Relationship between Age, Educational Attainment, and Tenure of Work (Years in Service) with Job Satisfaction
Table 3.

*Relationship between Age and Job Satisfaction*

<table>
<thead>
<tr>
<th>Aspect</th>
<th>R</th>
<th>R-square</th>
<th>F-value for test of Significance of Regression Model</th>
<th>p - value</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intrinsic</td>
<td>0.338</td>
<td>0.114</td>
<td>2.315</td>
<td>0.145</td>
<td>Not Significant</td>
</tr>
<tr>
<td>Extrinsic</td>
<td>0.388</td>
<td>0.150</td>
<td>3.188</td>
<td>0.091</td>
<td>Not Significant</td>
</tr>
<tr>
<td>General</td>
<td>0.360</td>
<td>0.129</td>
<td>2.672</td>
<td>0.119</td>
<td>Not Significant</td>
</tr>
</tbody>
</table>

In Table 3, it is seen that only a relatively small fraction of job satisfaction is explained by the predictor variable age along the intrinsic, extrinsic, and general aspects. This is indicated by the coefficient of determination, R-squared, values. Along the intrinsic aspect of job satisfaction, only 11.4% of it is due to variation of age of the employees. The simple regression model turned out not significant as indicated by the p-value of 0.145 (p > 0.05). On the other hand, only 15% of the variation in extrinsic job satisfaction is due to age of the respondents. The simple regression model for this case is likewise not significant since the corresponding p value of 0.091 is greater than the 0.05 significance level. Moreover, the same result is seen along the general aspect where the obtained p-value for the simple regression model is 0.119 (p > 0.05). Only 12.90% of the variation in perceived job satisfaction levels is due to the variation in employee’s age.

These results would only imply that job satisfaction is not dependent on the age of the employee. It does not necessarily imply that the older the employee is, the higher is his or her job satisfaction level. This corroborates the study of the researchers as Ghazzawi (2011); Hossain (2014); Petty et al. (2005); and Sarker et al. (2003), that there was no significant relationship between age and job satisfaction.

The result above on age and job satisfaction, also mirror the result found on educational attainment (in terms of years of school completed). It does not imply that the higher an employee’s educational attainment is (or the longer the time spent completing his or her degree), the higher is that employee’s job satisfaction level. As supported by Jurik et al. (1987); and Petty et al. (2005) results indicated that education and job satisfaction had no significant relationship.
Further, the results would likewise show that the employee’s job satisfaction does not depend or is not determined by the years in service or tenure of work of the employees. This does not imply that the longer the employee is in the company, the higher is the employee’s job satisfaction, as supported by Petty et al. (2005) that there was no relationship between company tenure and job satisfaction.

Conclusions

The study has shown that job satisfaction is a challenge to the company. The result showed that the level of job satisfaction of the employees was average, which means they perceive themselves to be satisfied with their job. Further, there was no significant difference on intrinsic, extrinsic and general job satisfaction when the respondents were grouped along gender, age, educational attainment and tenure of work. Likewise, same result of no significant relationship was found between age, educational attainment, and tenure of work with job satisfaction. The result implied that job satisfaction is not dependent on the age, educational attainment, and tenure of work of the employee.

The respondents focused only on the management and employees of the structural steel detailing industry in Cordillera Administrative Region (CAR) of Tublay, Benguet, Philippines. The result may not be generalized to the entire nation more so the universe; on the other hand, to present inclusive results with the number of respondents is assumed to be enough. Time constraint was also one of the problems that was experienced. Only one year was the time granted for the completion of this research as per requirement of the graduate school which led in choosing the organization where the main researcher belongs as the main domain of the study and not to include the other detailing company from National Capital Region (NCR), which is Manila, Philippines.

Future research in job satisfaction in the structural steel detailing industry should be done and could focus on other demographic variables not included in this study, such as salary bracket, working hours, marital status and culture. By means of research, it is a great help to understand why and when employed people react to their work either positively or negatively. Possibly, a continuous training and development can be given to inexperienced steel detailer, giving them a chance to become a seasoned steel detailer. Moreover, verbal appreciation and culture of praise should be encouraged at the
workplace since these help to motivate employees and keep them determined toward their work despite being busy and pressured.

Further, replication of this study is recommended using the samples from the different structural steel detailing companies at National Capital Region (NCR), which is Manila, Philippines. Lastly, it is highly recommended to use the long form of the Minnesota Satisfaction Questionnaire (MSQ) 1977 to broaden understanding of the level of job satisfaction among employees in the different steel detailing industry.

References


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