The influence of employee demographic factors on job satisfaction: A case study of Segen Construction Company, Eritrea

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The purpose of the study was to examine the relationship between demographic factors and job satisfaction at Segen Construction Company (SCC), Eritrea, using Minnesota Satisfaction Questionnaire (MSQ on a five-point Likert scale). The survey was conducted in June 2017, and covered 68 employees of SCC at the headquarters in Asmara. Regression analyses on the influence of demographic factors on job satisfaction revealed that there was no significant relationship between gender and job satisfaction ($r^2=0.002; p=0.296$); significant relationship between age and job satisfaction ($r^2=0.052; p=0.035$); significant relationship between working experience and job satisfaction ($r^2=0.070; p=0.017$); and no significant relationship between academic qualification and job satisfaction ($r^2=-0.008; p=0.506$). On the extent of the influence of intrinsic and extrinsic factors on job satisfaction, the aggregate mean value of intrinsic determinants was 3.36, and that of extrinsic determinants was 3.28. Results of regression analyses yielded $r^2 = 0.817; p=0.000$ for intrinsic determinants, and $r^2 = 0.809, p=0.000$ for extrinsic determinants. Hence, the study concluded that at SCC, the intrinsic determinants had greater influence than extrinsic factors on job satisfaction.

Key words: Job satisfaction, demographic factors, intrinsic and extrinsic determinants, minnesota satisfaction questionnaire.

INTRODUCTION

Job satisfaction is the extent to which people like (satisfaction) or dislike (dissatisfaction) their jobs (Spector, 1997); while according to Armstrong (2006), job satisfaction refers to the attitudes and feelings people have about their work. Managers and researchers aim at identifying job satisfaction determinants in order to develop appropriate strategies that can help optimize employee productivity.

Several studies have been made to assess factors influencing job satisfaction at workplaces. Some researchers have concluded that job satisfaction is more of a function of intrinsic factors than extrinsic factors.
(Barrick and Mount, 1991; Tett et al., 1991). On the other hand, researchers such as Igalens and Roussel (1999) and Brewer et al. (2008) have conclude that job satisfaction is more of a function of extrinsic factors than intrinsic factors while Broad (2007) observed that both intrinsic and extrinsic factors played a great role on job satisfaction.

This survey was made in a developing country in Africa (Eritrea) unlike earlier related studies that have been conducted in developed countries. The study was a case of Segen Construction Company (SCC). It sought to establish the influence of demographic factors on job satisfaction, while examining the extent to which intrinsic or extrinsic determinants’ influence employee’s job satisfaction.

**Background of Segen Construction Company (SCC)**

SCC was established in 1994 with the principal focus on civil and building construction. SCC provides design, general civil and building construction for commercial and residential houses, hospitals, stadiums, religious facilities, colleges, industries, dams, roads, diversion canals, airports, and mining facilities, among others (Segen Construction Company Profile, 2010). Currently, SCC is one of the biggest construction companies in Eritrea. It has more than 6500 employees, and net worth of around 600 million Nakfas (USD 40M) as of 2009. The company owns factories of hollow and concrete bricks, iron and aluminum works; woodwork and log processing plants. For improving the performance, the company has established a training center at Betgeregash that provides on- and off-job training in building construction, mechanical and auto mechanics, carpentry, electrical engineering, and driving, among others. The company has built goodwill on clients among them Bisha Mining Company and other national and international companies (Segen Construction Company Profile, 2010).

**Problem statement**

Researchers and managers are keen on identifying key determinants of job satisfaction at workplaces as the understanding of the nature, and specificities of contextual job satisfaction is an important first step in defining and adapting efficient managerial policies (Ferreira et al., 2009). The findings of an empirical study by Board (2007) concluded that job satisfaction depends on both intrinsic and extrinsic determinants whereas Barrick and Mount (1991), Tett et al. (1991), Ahmad et al. (2012), Ali and William (2014), and Elizabeth and Zakkariya (2015) found that intrinsic factors play a great role over extrinsic determinants. On the other hand, researchers Igalens and Roussel (1999), Brewer et al. (2008), Mazuki et al. (2011), Matthew et al. (2012), and Samuel and Twaha (2014) concluded that extrinsic determinants influenced job satisfaction. The ambivalence in the findings of these studies necessitates the need for a study in a different context for comparability as the afore-mentioned studies were conducted in developed countries. Thus, a study on job satisfaction in the context of construction sector of Eritrea as a case study was deemed necessary to assess the similarities and dissimilarities of the above assertions.

**Objectives of the study**

The general objective of this study was to establish the factors influencing job satisfaction at SCC. The specific objectives were:

1. To establish the relationship between demographic factors and job satisfaction at SCC.
2. To examine the extent of the influence of intrinsic determinants on job satisfaction as measured by MSQ at SCC.
3. To establish the extent of the influence of extrinsic determinants on job satisfaction as measured by MSQ at SCC.

**Research questions**

1. Do demographic factors influence the level of job satisfaction of employees at SCC?
2. To what extent do intrinsic determinants influence the level of employee’s job satisfaction at SCC?
3. To what extent do extrinsic determinants influence the level of employee’s job satisfaction at SCC?

**LITERATURE REVIEW**

Various scholars define and measure the concept of job satisfaction from different angles. Job satisfaction is one of the most enduring yet elusive constructs used in the study of industrial relations (Locke, 1976; Yuzuk, 1961). Job satisfaction is often considered in terms of intrinsic and extrinsic factors as proposed by Herzberg (1966). Intrinsic factors such as opportunities for advancement and growth, recognition, responsibility, and achievement, promote job satisfaction whereas extrinsic factors such as supervision, pay, policies, working conditions, interpersonal relations, and job security prevent job dissatisfaction (Szymanski and Parker, 1996). It has been observed that people tend to migrate to jobs that have characteristics that are consistent with their own job
priorities or personalities (Barrick and Mount, 1991; Tett et al., 1991). Hoppock (1935) described job satisfaction as any combination of psychological, physiological and environmental circumstances that cause a person to truthfully say;

‘I am satisfied with my job’

Vroom (1964), in his analysis on job satisfaction focuses on the role of the employee in the workplace. Thus, he defines job satisfaction as affective orientations on the part of individuals toward work roles which they are presently occupying. Cook et al. (1981) on the other hand, describe job satisfaction as a result emanating from the individual fulfilling the requirements of the environment, and the environment fulfilling the requirements of the individual. This means that employees will experience job satisfaction if they feel that their individual capacities, experience and values can be organized in their work environment, and that the work environment offers them opportunities and rewards (Dawes, 1992; Roberts and Roseanne, 1998).

Kaliski (2007) opines that job satisfaction is a worker’s sense of achievement, and success on the job. He further elaborated that job satisfaction is perceived to be directly linked to productivity as well as to personal well-being. Job satisfaction implies doing a job one enjoys, doing it well and being rewarded for one’s efforts. It further implies enthusiasm and happiness with one’s work. It is the key ingredient that leads to recognition, income, promotion, and the achievement of other goals that lead to a feeling of fulfillment. The term job satisfaction also refers to the attitudes and feelings people have about their work. Positive and favorable attitudes towards the job indicate job satisfaction. Negative and unfavorable attitudes towards the job indicate job dissatisfaction (Armstrong, 2006).

Organizations vary in the main determinants leading to job satisfaction: sources of job satisfaction (Adamson et al., 1995; Nolan et al., 1995); interactions with co-workers/managers (Lee and Jungran, 1998; Aiken et al., 2001); work itself (Lundh, 1999; Adams and Bond, 2000); remuneration (Price, 2002; Wang, 2002); self-growth and promotion (Tzeng, 2002); praise and recognition (Nolan et al., 1995; Lundh, 1999); control and responsibility (Lee and Jungran, 1998; Price, 2002); job security (Nolan et al., 1995, 1998); leadership styles and organizational policies (Lee and Jungran, 1998; Tzeng, 2002).

Studies on the determinants of job satisfaction are beneficial to organizations (Kasim and Ghaffar, 2012; Linda and Michael, 2014). Researchers have found that job satisfaction may affect employees’ loyalty, confidence and commitment to the organization (Kasim and Ghaffar, 2012). Other studies show that job satisfaction will help organizations to retain experienced, trained and competent employees (Damiano and Nunzia, 2014; Sarlaksha and Mangadu, 2014; Chih-Cheng et al., 2015).

Review of empirical studies

Several studies conducted in the developed world have indicated that intrinsic determinants have stronger influence on job satisfaction than extrinsic determinants. People tend to migrate to jobs that have characteristics that are consistent with their own job priorities or personalities (Barrick and Mount, 1991; Tett et al., 1991; Ahmad et al., 2012; Ali and William, 2014; Elizabherth and Zakkariya, 2015). On the other hand, extrinsic determinants such as the working environment, pay, work place attributes, and change in technology are the main factors that influence employee’s behavior in any organization (Igalens and Roussel, 1999; Brewer et al., 2008; Matthew et al., 2012; Mazuki et al., 2011; Samuel and Twaha, 2014).

In addition, empirical research has shown that demographic factors can affect job satisfaction (Heslop et al., 2002; Ting, 1997). Petty et al. (2005) observed that although focusing on employee demographics shifts the burden away from the organization to the employee, it has been important to study how demographic variables have affected job satisfaction so that a complete understanding of the concept can be gained.

Regarding age and job satisfaction, Clark et al. (1996) pointed out that a U-shape relationship exists between age and job satisfaction. This is attributed to higher morale shown by younger workers, lower job satisfaction of middle-age workers (who often perceive less opportunities and have unmet expectations) and higher job satisfaction of older workers who have accepted the realities of their jobs and roles.

Mack (2000) and Ting (1997) indicated that job satisfaction increased with age. However, other researchers have not found a relationship between age and job satisfaction (Moak, 1992; Niblock, 1992). With regard to job satisfaction and gender, Brief and Weiss (2002) and Kellough (1990) established that job satisfaction was determined by the gender of the employee while Moak (1992) and Pugliesi (1995) found no relationship between gender and job satisfaction.

Other studies have shown that women are more satisfied with their jobs than men (McDuff, 2001; Wharton, 1993). For this study, the following demographic factors will be linked to job satisfaction in a bid to establish whether any relationship exists between them with specific reference to SCC: age, gender, working experience, and academic qualifications.

Conceptual framework

Based on the foregoing discussions, the following conceptual framework has been developed to guide the study as shown in Figure 1. The research was a case study of the SCC as it is the biggest construction company in the country. The study adopted descriptive
research design which was cross-sectional in nature as it is appropriate in portraying accurate profiles of persons, events or situations as they are without manipulating them (Robson, 2002; Kothari, 2004; Saunders et al., 2009). Creswell (2002) also noted that descriptive research describes the existing situations instead of interpreting and making judgments. Since the research strategy was a case study, a census survey of the entire population (68) at the headquarters was conducted. MSQ self-administered questionnaire was adopted for this study.

MATERIALS AND METHODS

Target population and distribution

The target population was 68 respondents at the headquarters. The unit of analysis was the SCC while the units of observation were the departments of administration, finance, and engineering. Table 1 gives the population distribution.

Instrument and measures

This study adopted the Minnesota Satisfaction Questionnaire (MSQ) that measures job satisfaction in 20 facets derived from a long form with 100 questions (five items from each facet) (MSQ; Weiss et al., 1967). The short form MSQ consists of 20 items; one item from each facet (Spector, 1997) and that utilizes the five-point likert scale was adopted. The researchers adopted the MSQ for its comprehensiveness and for comparability of findings with those of other researches that have used it and use of Likert Scale rather than measures of ‘yes’, ‘no’ or ‘can’t decide’.

Data collection procedure

The MSQ questionnaires were distributed among 68 SCC employees.
Table 1. Population distribution.

<table>
<thead>
<tr>
<th>Work unit</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administration</td>
<td>6</td>
<td>8.82</td>
</tr>
<tr>
<td>Finance</td>
<td>12</td>
<td>17.65</td>
</tr>
<tr>
<td>Engineering</td>
<td>50</td>
<td>73.53</td>
</tr>
<tr>
<td>Total</td>
<td>68</td>
<td>100.00</td>
</tr>
</tbody>
</table>

Source: Field data (2017).

at the headquarters, and allowed a period of one week to fill after which they were collected by the researchers.

Data analysis

After receiving the questionnaires from the field, data coding, entry, cleaning and analysis were done using statistical package for social sciences (SPSS) version 20. Descriptive statistics were computed and used to present the findings.

RESULTS AND DISCUSSION

Response rate

All the questionnaires that were distributed to the respondents (68) were filled and returned, representing a remarkable 100% response rate.

Demographic factors of respondents

Majority of the respondents were male (67.6%); while females represented 32.4%. This shows that the company has not achieved gender parity in its placement. In the age category, 76.4% of workers were below 45 years, showing that majority of the company’s workforce are in their most active age and this is good for the company. Concerning working experience at the company, 44.2% of the employees had worked for the company for between 11 and 25 years, which is an indication of their level of satisfaction with the company. In terms of academic qualification, 51.5% had advanced diploma and above. However, the number with master’s degree is quite low: 8.8% (4 employees), and the company ought to address this shortcoming. Table 2 summarizes the demographic data of respondents.

Reliability of the research instrument

The MSQ questionnaire comprised of 20 elements: 12 items of the intrinsic determinants, whose Cronbach Alpha (reliability) coefficients ranged between 0.869 and 0.867. Eight (8) items of extrinsic determinants had reliability coefficients ranging between 0.779 and 0.784. The general satisfaction scale registered a reliability coefficient of 0.894 at a confidence interval of 95%. A good measure of reliability is where the alpha coefficient ranges from 0.7 and above. A Cronbach coefficient of 0.7 on predictor variables is considered acceptable (Ehlers, 2000). This is in agreement with ranges of Cronbach coefficients specified by George and Mallery (2003) as follows:

\[ \alpha \geq 0.9 \text{ is considered excellent; } 0.9 > \alpha \geq 0.8 \text{ is considered good; } 0.8 > \alpha \geq 0.7 \text{ is considered acceptable; } 0.7 > \alpha \geq 0.6 \text{ is questionable; } 0.6 > \alpha \geq 0.5 \text{ is considered poor while } 0.5 > \alpha \] is considered unacceptable.

The researchers used a Cronbach coefficient threshold of 0.7 as recommended by Huang et al. (2013). These tests confirm that the instrument used in the study met the acceptable standards of reliability analysis.

Influence of demographic characteristics on job satisfaction

Influence of gender on job satisfaction

This section was intended to answer the research question, ‘Do employees’ demographic factors influence their level of job satisfaction? In order to respond to this research question, analyses of job satisfaction in relation to respondents’ age, gender, work experience and academic qualifications were conducted. Figure 2 shows the summarized results of the cross tabulation of gender and mean job satisfaction. As depicted on Figure 2, in the scales – ’very dissatisfied and dissatisfied’ – the response mean value seems to match for both males and females. The discrepancy in both sexes becomes higher from ‘neither’ to ‘satisfied’ scale. From ’satisfied’ to ‘very satisfied’, the graph in both gender showed downward slopes. However, the score for men at the satisfied level is much higher than that of women implying that men are more satisfied than their female counterparts. This can be attributed to men’s perception that they can acquire better opportunities in the construction industry than females. This finding contradicts the findings of studies by McDuff (2001) and Wharton (1993) that found women were more satisfied with their jobs than men. It is
Table 2. Respondents’ demographic data.

<table>
<thead>
<tr>
<th>Demographic variable</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>22</td>
<td>32.4</td>
</tr>
<tr>
<td>Male</td>
<td>46</td>
<td>67.6</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt;25</td>
<td>23</td>
<td>33.8</td>
</tr>
<tr>
<td>26-35</td>
<td>12</td>
<td>17.6</td>
</tr>
<tr>
<td>36-45</td>
<td>17</td>
<td>25</td>
</tr>
<tr>
<td>46-55</td>
<td>7</td>
<td>10.3</td>
</tr>
<tr>
<td>&gt;56</td>
<td>9</td>
<td>13.2</td>
</tr>
<tr>
<td>Working experience (years)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt;1</td>
<td>3</td>
<td>4.4</td>
</tr>
<tr>
<td>1-5</td>
<td>27</td>
<td>39.7</td>
</tr>
<tr>
<td>6-10</td>
<td>8</td>
<td>11.8</td>
</tr>
<tr>
<td>11-15</td>
<td>8</td>
<td>11.8</td>
</tr>
<tr>
<td>16-20</td>
<td>14</td>
<td>20.6</td>
</tr>
<tr>
<td>21-25</td>
<td>8</td>
<td>11.8</td>
</tr>
<tr>
<td>≥26</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Academic qualification</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12 + 1 (certificate)</td>
<td>15</td>
<td>22.1</td>
</tr>
<tr>
<td>12 + 2 (diploma)</td>
<td>18</td>
<td>26.5</td>
</tr>
<tr>
<td>12 + 3 (advanced diploma)</td>
<td>6</td>
<td>8.8</td>
</tr>
<tr>
<td>BSc/ BA Degree</td>
<td>25</td>
<td>36.8</td>
</tr>
<tr>
<td>MA/MSc.</td>
<td>4</td>
<td>5.9</td>
</tr>
</tbody>
</table>

Source: Field data (2017).

Figure 2. Influence of gender on job satisfaction.
however noted that the nature of a job can influence the level of satisfaction across different genders. However, in terms of the general relationship between gender and job satisfaction, the results of the regression analysis showed no significant relationship ($r^2 = 0.002$ with $p=0.296$; at 95% confidence level).

### Influence of age on job satisfaction

The respondents were grouped into five age categories. Assessment and analyses were conducted to determine whether job satisfaction was influenced by age category. Figure 3 represents the findings. The graph showed an irregular shape, and deviated from the findings of Clark et al. (1996) who concluded that a U-shape represented the relationship between age and job satisfaction. However, the results of the regression analysis revealed that the relationship between age of employees and job satisfaction was significant ($r^2=0.052$, $p=0.035$).

### Influence of academic qualification on job satisfaction

Analysis was made to establish the relationship between respondents’ academic qualification and job satisfaction. The mean value of job satisfaction was cross tabulated with employees’ highest level of education qualification. Based on the findings, there was direct relationship between academic qualification and job satisfaction. The percentage of satisfied respondents seemed to increase with their level of qualification except for 12+3 (advanced diploma). This may be attributed to marginal salary increase upon qualification. This finding agrees with that of Ahmet (2007) that demonstrated a positive relationship between education level and job satisfaction. However, the results of the regression analysis showed that the relationship was not significant ($r^2=-0.008$; $p=0.506$).

Figure 5 shows the summary of the graphic findings.

### Extent to which intrinsic determinants influence job satisfaction

Assessment was made to respond to the research question, ‘to what extent does intrinsic determinants...”

![Figure 3. Influence of age on job satisfaction.](image-url)
influence job satisfaction of SCC employees? Table 3 shows the means of constructs of the intrinsic determinants. The aggregate score shows a mean of 3.36, and a standard deviation of 1.039 implying that majority of the respondents attributed intrinsic determinants to job satisfaction. The chance to work
alone on the job’ with a mean of 3.63 and a standard deviation of 0.929 represented the intrinsic determinant leading to the highest level of job satisfaction. This confirms that employees require appreciable degree of independence in the work environment in order to be effective and productive in their jobs. The results of the regression analysis on the extent of intrinsic determinants influence on job satisfaction yielded the following result; \( r^2 = 0.817 \), \( p=0.000 \). This means that 81.7% of the outcome of job satisfaction was attributable to intrinsic factors.

### Extent to which extrinsic determinants influence job satisfaction

Table 4 shows the results for the relationship between extrinsic determinants and job satisfaction. From Table 4, the aggregate score shows a mean of 3.2862, and a standard deviation of 1.0627 implying that more than half of the respondents linked job satisfaction to extrinsic factors. The results of the regression analysis on the extent of extrinsic determinants influence on job satisfaction yielded the following result; \( r^2 = 0.809 \), \( p=0.000 \). This means that 80.9% of the outcome of job satisfaction is attributable to extrinsic factors. In comparing the results of the extent to which both intrinsic and extrinsic determinants influence employee’s job satisfaction, the aggregate mean value of intrinsic determinants was 3.36, and that of extrinsic determinants 3.28. Results of regression analyses yielded \( r^2 = 0.817 \); \( p=0.000 \) for intrinsic determinants and \( r^2 = 0.809 \), \( p=0.000 \) for extrinsic determinants. Hence, the study concludes that at SCC, the intrinsic determinants had greater influence than extrinsic factors on job satisfaction. This assertion agreed with the findings of Barrick and Mount (1991), Tett et al. (1991), Ahmad et al. (2012), Ali and William (2014), and Elizaberth and Zakkariya (2015) that intrinsic determinants influence job satisfaction more than.
extrinsic determinants.

**Conclusion**

Based on the results of regression analyses, the study concluded that on the influence of demographic factors on job satisfaction, there was no significant relationship between gender and job satisfaction ($r^2=0.002; p=0.296$); there was significant relationship between age and job satisfaction ($r^2=0.052; p=0.035$); there was significant relationship between working experience and job satisfaction ($r^2=0.070; p=0.017$); and no significant relationship between academic qualification and job satisfaction ($r^2=0.008; p=0.506$). On the extent of the influence of intrinsic and extrinsic factors on job satisfaction, the aggregate mean value of intrinsic determinants was 3.36 and that of extrinsic determinants 3.28. Results of regression analyses yielded $r^2 = 0.817$, $p=0.000$ for intrinsic determinants and $r^2 = 0.809$, $p=0.000$ for extrinsic determinants. Hence, the study concludes that at SCC, the intrinsic determinants had greater influence than extrinsic factors on job satisfaction; a finding supported by similar findings of Barrick and Mount (1991), Tett et al. (1991), Ahmad et al. (2012), Ali and William (2014); and Elizabeth and Zakkariya (2015).

**Recommendations**

Owing to the findings of the study, the following recommendations suffice;

1. The study found that men were more satisfied than women at SCC. An in-depth study on the factors influencing gender satisfaction in the construction industry would be useful in identifying specific causes of low satisfaction levels among women compared to men.
2. In this study, demographic factors were used as independent variables to determine their influence on job satisfaction. It’s recommended that a similar study can be conducted but with the use of demographic factors as moderator variables in order to determine their influence on job satisfaction.
3. The same study can be replicated but by means of different questionnaires other than MSQ for comparability of findings.

**CONFLICT OF INTERESTS**

The authors have not declared any conflict of interests.

**REFERENCES**


Board LM (2007). Coaching a stockholder on performance improvement option, ASTD International conference, Atlanta GA, USA.


