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THE DEGREE OF JOB SATISFACTION EXPERIENCED BY SITE-BASED CONSTRUCTION PROFESSIONALS

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ABSTRACT

The construction industry worldwide is having problems attracting and retaining skilled workers. This study analyses a series of factors affecting job satisfaction of site-based construction professionals employed in medium to large scale metropolitan construction firms in Melbourne, Australia. The industry survey carried out identified salary as the strongest determinant of job satisfaction. However, many respondents reported being dissatisfied with pay levels when compared to other industries and the number of work hours expected. The greatest causes of dissatisfaction were related to difficulties in maintaining a work-life balance. The indicator “Variety, interest and challenge” was the most frequently cited positive aspect of a career in construction. Given the shortage of skilled construction workers in Australia, it is important for companies to maximise the retention of site-based construction professionals and ensure that key job satisfaction indicators are met.

INTRODUCTION

The attraction and retention of skilled workers is a key concern for the Chief Executive Officers of major construction companies (KPMG 2005). The shortage of skilled workers was the top concern of 54% of respondents and 70% of those questioned placed the recruitment and retention of people with the right skills in their top three concerns. One Australian executive commented that: “In the Australian market, 80,000 to 100,000 skilled resources will leave the industry in the next few years only to be replaced by just 30,000 to 40,000 workers”. It is becoming extremely important to ensure that construction site workers feel that they are valued and that they are satisfied in their job.
The construction industry is complex, dynamic and uncertain. The products tend to be unique and there are a range of demands that can create additional work pressures such as projects won at short notice, the need for the work-force to be transient (i.e. moving between different work locations), teams forming and disbanding for short-term contracts, client pressures - often for fast-tracked projects, a male dominated macho culture, and a need for continual up-skilling and increased competency requirements to deal with innovative construction methods (Raiden et al. 2005). Combine these issues with a highly competitive market with relatively low profit levels, and the requirement to complete construction projects within tight deadlines and budget constraints (Lingard and Sublet 2002) and the overall outcome is a construction industry that is a highly demanding environment in which participants are expected to work long hours and put their job first (Lingard 2002).

Job satisfaction is an emotional or affective response to one’s vocation (Fisher 2000). Self-fulfilment has been identified as increasingly important to today’s workers (Lingard and Francis 2004) rather than job security which typified the work needs of the post World War II generation of workers. Maslow’s work on motivation suggests that a key component of job satisfaction is recognition and reward for a person’s contribution through their job (Maslow 1943). It is important for an organisation to understand these requirements to best meet the needs of their employees. What does the industry supply? Given that most people work for financial reward, and this is often regarded as the best way of recognising and rewarding employees, there are some serious problems with pay scales in the construction industry. Comments from site professionals reported by Lingard (2002) in an investigation of the turnover of Australian civil engineers make disturbing reading: ‘Engineers are the most overworked and underpaid professionals in Australia’. A further respondent went on to state: ‘The financial reward, compared to the required level of skill, the responsibility and hard work, for engineers is ridiculously low’. It is for these reasons that an organisation must maintain a remuneration package for their employees that is not only fair and equitable for the job being undertaken, but
remuneration must also be regarded as fair and equitable in relation to other industries requiring the same level of skill and associated responsibility.

Job security is a key concern amongst all employees, especially those who work in a highly competitive market such as the construction industry. The very nature of the construction industry, being project based, provides far less job security than repetitive process industries (Lingard and Sublet 2002). A construction professional’s continued employment is conditional on successful tendering of new projects in a highly competitive industry. Lingard and Sublet (2002) also found that job insecurity is closely linked to burnout and that continued employment in the industry may require frequent relocation - an area which can be a cause of dissatisfaction itself.

Turnover has major implications in construction and is closely linked to job satisfaction. Turnover signals a loss of valuable human resources and can cause disruption to ongoing activities (George and Jones 1996). Turnover is a costly part of any organisation but has particular repercussions in the construction industry. Turnover not only removes the valuable, skilled and experienced workers who are highly productive, but also takes away the mentors vital to training upcoming junior professionals.

Several studies have reviewed the effect a person’s non-work life has on their job satisfaction at work and vice versa. In a study on employee life satisfaction, Hart (1999) found that the non-workplace domain was a far greater contributor to satisfaction or dissatisfaction than the workplace itself. It has been theorised (Lingard and Sublet 2002) that work-life balance initiatives by organisations may benefit employees, but to be successful the industry firstly needs to deviate from the socially constructed norm of long work hours that seems to be entrenched within today’s construction industry.

With long hours, tight deadlines and increased workloads in the construction industry, it would be no surprise to find a certain level of job dissatisfaction amongst construction professionals. But to what level? Can we identify the causes and see solutions to manage them and therefore increase an individual’s level of satisfaction? What attracts
workers to the industry in the first place and what keeps them there? The following
survey results provide some answers to these questions.

**RESEARCH AIMS AND OBJECTIVES**

This survey investigates what job satisfaction indicators are most important to site-based
construction professionals as well as whether or not they feel the industry is delivering
them.

The objectives of this research include:

- Establishing positive and negative job satisfaction affecters applicable to the
  construction industry;
- Assessing the importance of these indicators to the employees in the industry;
- Establishing how far professionals in the industry feel that their needs for optimal
  job satisfaction are being met.

**QUESTIONNAIRE DEVELOPMENT AND DISTRIBUTION**

The survey forms were developed from a number of generic questionnaires available on-
line with a suite of relevant questions\(^1\). Preliminary questions (Part 1 of the survey) were
added to elicit relevant background information such as family situation, work hours and
location, and years in the construction industry and years working for the particular firm.

Part 2 of the survey required the subject to rank in order from 1 (highest) to 14 (lowest)
the importance of a series of indicators developed from the literature on job satisfaction
relevant to their achieving satisfaction in the workplace. Part 3 of the survey made a
series of triangulated statements asking for graded responses from strongly agree, agree,
disagree to strongly disagree based around the job satisfaction indicators giving some
idea of how far these job satisfaction indicators were being achieved for the individual.
A nil response option was also available. Questions were also asked about whether the
respondent would recommend the firm to others and also the time, place and preceding
events when they completed the questionnaire – this latter being important to gauge any


emotive influences – workers responding at home being potentially more likely to respond favourably, for example, than those recently engaged in a difficult discussion with subcontractors.

The survey forms were distributed to site-based construction professionals working for three medium to large scale metropolitan construction companies in Melbourne, Australia. The anonymous survey responses were coded and analysed to generate a series of job satisfaction indicators. A total of 100 questionnaires were distributed with 42 complete questionnaires being returned, representing a satisfactory response rate of 42%.

RESULTS

The age of respondents is shown in Table 1. The sole female respondent was in the 20-29 age group. The average hours worked per week was 58.2 hours with an average working fortnight of 11.2 days.

<table>
<thead>
<tr>
<th>Age Group</th>
<th>20-29</th>
<th>30-39</th>
<th>40-49</th>
<th>50+</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. Respondents (%)</td>
<td>16 (37%)</td>
<td>7 (17%)</td>
<td>12(29%)</td>
<td>7 (17%)</td>
</tr>
</tbody>
</table>

**Table 1** Age grouping of construction site professionals

Part 2 of the survey required the respondent to rank in order from 1 (highest) to 14 (lowest) the importance of each item in regards to their satisfaction in the workplace. Responses were weighted in reverse - a number one rank was given a score of 14, a number 2 rank a score of 13 and thus sequentially to the bottom of the scale. Each set of rank scores were then summed and divided by the number of respondents. Scoring top ranked responses with the highest weighting enabled the most frequently cited responses to be summed and tabulated as shown in Figure 1. Therefore the higher the final score to 14 (the number of items to be ranked) the greater the importance of this item.

From Figure 1 we can see Salary is clearly the most important job satisfaction indicator for this sample group. Satisfaction with salary however is a further reaching indicator than simply providing the individual with a lifestyle they are happy with, it also goes a
long way to providing recognition and validation to the individual for their efforts. It can provide the individual with a sense of status and provides security as well as independence and freedom in their non-work life, by affording the individual greater means to enjoy the better things in life and where applicable, support a family with greater ease.

![Weighted job satisfaction indicators (All respondents)](image)

**Figure 1. Weighted job satisfaction indicators (All respondents)**

*Responsibility and Variety, Interest, Challenge* were a close second and third respectively. As with salary, both of these indicators validate the individual’s efforts and identify respondents desires for a stimulating work environment that motivates and challenges.

*Autonomy/Independence* (ranked 4th) indicates flexibility and a wider scope for problem solving and freethinking, providing a challenge as well as validation by way of the trust put in the individual from senior management. *Relationships with colleagues* was 5th,
showing a desire for individuals to feel comfortable in their workplace and a possible support base should the need arise in the decision making process. This is important since individuals are spending around 60 hours a week at work with their colleagues - as much if not more time than they get to spend with their own family. Career progression (ranked 7th) possibly reflects the mix of age ranges with differing attitudes to career progression. Security ranked below the midpoint at 8th, which is perhaps surprising given the volatility of the construction industry, but site managers are typically employed full-time by large contractors and, whilst moved from site to site, are not likely to be made redundant at the end of a project. Scope for Personal Development was an indicator that did not rank as highly as might be expected, ranking 9th but again this may be attributed to such indicators as responsibility and variety, interest, challenge allowing for personal development.

**Ranked Individual Most Important Job Satisfaction Indicator**

Averages are arguably the best way of giving an indication of the most important items, but in an undertaking a study such as this it is also useful to know the most popular or frequently cited first rank response from each of the subjects being studied. In the weighted summed ranking of factors in Figure 1 it was found Salary was most important with Variety, Interest and Challenge ranked 3rd. Through analysing each individual’s number one ranked job satisfaction indicator however, (see Figure 2 below), Variety Interest and Challenge was most frequently ranked number one by 10 of the respondents (24%) of the sample population with salary only ranked number one by 4 respondents (10%). This result transpires because although Variety Interest and Challenge was ranked number one by the majority of subjects, the remainder ranked it far lower, whereas Salary was in the top 2 to 3 rankings of almost the entire sample group. Of interest also was Career Progression ranked number one by 5 of the sample.
Job Satisfaction Indicators Met

The above sections analyse which job satisfaction indicators the site-based construction professional holds most important. This section analyses whether these needs are being met. Part 3 of the survey asked the participant to rate their opinion on a number of different statements whether they agreed or disagreed, strongly or just in general. Each of these statements was linked to one or more of the job satisfaction indicators. Results were collated for the questions linked to each of the indicators as shown in Figure 3.
From this figure it can be seen that to a large extent most of the indicators are being met at over the 60% level. *Non-monetary benefits* are the least satisfied of the indicators, but this was also very low on the list of job satisfaction requirements (Tables 1 and 2). *Manageable stress levels*, at a level of 58% agreement, are of more concern given the issue of burnout identified by other literature reviewed above (Lingard 2002) and are reviewed further below in an examination of questions related to work-life balance. *Salary, Recognition, Career Progression*, and *Security* are the next least satisfied of the indicators with at least 25% of the sample group of 42 disagreeing that this need is being met by the industry. Given that salary was ranked the most important overall weighted indicator and career progression the second most important of the individual first ranked items, these are areas of potential concern. On the plus side, *variety, interest and challenge, responsibility, autonomy and independence* – all high on the weighted ranking
of indicator importance, are being achieved with nearly 90% agreement and nearly 30% of respondents being highly satisfied with these areas of job satisfaction.

**The Work-Life Balance**

Whilst work-life balance was not specifically used as an indicator of job satisfaction, a number of questions addressed this area. A re-grouping and analysis of these questions allows examination of work-life balance (Table 2).

At least 50% of the sample group indicated that work impinges heavily on their social life and does not allow enough time to meet the needs of their family. The results show that the requirements for leave were slightly more flexible but still around 30% of sample subjects disagreed it was adequate. Respondents were not willing however, to work fewer hours for less pay.

<table>
<thead>
<tr>
<th>Positive %</th>
<th>Negative %</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>sa</td>
<td>a</td>
<td>d</td>
</tr>
<tr>
<td>I can arrange work to meet personal/family needs</td>
<td>7</td>
<td>38</td>
</tr>
<tr>
<td>I can balance work with my social life</td>
<td>7</td>
<td>43</td>
</tr>
<tr>
<td>I have time for a range of social activities</td>
<td>5</td>
<td>31</td>
</tr>
<tr>
<td>I have been able to take leave when I needed/wanted to</td>
<td>12</td>
<td>55</td>
</tr>
<tr>
<td>I would prefer working for a company where I worked fewer hours even if the pay was less</td>
<td>5</td>
<td>40</td>
</tr>
</tbody>
</table>

Table 2 Work-Life Balance

(Note: sa = strongly agree, a = agree, d = disagree, sd = strongly disagree, n = nil response)

**Data Matrix – The verdict**

Figure 4 depicts a matrix of the importance and achievement of job satisfaction indicators. For an indicator to be included as of higher importance it needed to be ranked in the top 7 weighted indicators and score an average of more than 7 (ie above midpoint). For an indicator to be rated as satisfied, this must be agreed upon by at least 75% of the
Salary is the only indicator that is seen as highly important yet is being satisfied at a marginally unacceptable level (72% respondents satisfied). The important and positive aspects of a career in construction that are well-satisfied include *variety, interest and challenge*, *responsibility*, *autonomy and independence* and *relationships with colleagues*.

<table>
<thead>
<tr>
<th>JOB SATISFACTION INDICATOR DATA MATRIX</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Satisfaction</strong></td>
</tr>
<tr>
<td><strong>Higher</strong></td>
</tr>
<tr>
<td>- Status</td>
</tr>
<tr>
<td>- Relationship with manager/supervisor</td>
</tr>
<tr>
<td>- Fairness, equity</td>
</tr>
<tr>
<td>- Recognition</td>
</tr>
<tr>
<td>- Career progression</td>
</tr>
<tr>
<td>- Manageable stress levels</td>
</tr>
<tr>
<td>- Security</td>
</tr>
<tr>
<td>- Non-monetary rewards and benefits</td>
</tr>
<tr>
<td>- Scope for personal development</td>
</tr>
<tr>
<td><strong>Lower</strong></td>
</tr>
<tr>
<td><strong>Higher</strong></td>
</tr>
<tr>
<td>- Responsibility</td>
</tr>
<tr>
<td>- Variety, interest, challenge</td>
</tr>
<tr>
<td>- Autonomy/independence</td>
</tr>
<tr>
<td>- Relationships with colleagues</td>
</tr>
<tr>
<td><strong>Importance</strong></td>
</tr>
</tbody>
</table>

Figure 4. Importance and achievement of job satisfaction indicators

**CONCLUSIONS**

As the findings of this research show the site based construction professional’s job satisfaction hinges on a number of different indicators. Not surprising was the choice of *salary* as the most frequently chosen indicator for job satisfaction when all the indicators were given a weighting according to their ranking and then averaged. However, salary levels were only agreed as being met satisfactorily by 72% of respondents. Other popular means of satisfying the needs of the sample group in terms of job satisfaction included *responsibility* and also *variety, interest, challenge, autonomy/independence*, the need for *positive relationships with colleagues*, together with *recognition* requirements and
opportunities for *career progression*. The most frequently cited job satisfaction indicator ranked number one was *variety, interest and challenge*. This together with *responsibility* and *autonomy/independence* proved to be the most satisfied of the higher ranking job satisfaction indicators with over 90% achievement. On the down-side, stress levels are not always seen to be manageable, and achieving a satisfactory work-life balance is proving difficult for more than 50% of the sample group.

Given that the construction industry is seeing serious numbers leaving the industry (KPMG 2005), it is important to understand the attractions of the industry and those aspects that could be triggering the out-transfer of skilled resources. For this sample group, the construction industry can be seen as supplying a highly satisfying career, meeting a number of highly desirable job satisfaction needs but attention needs to be paid to salary levels and assisting workers to achieve a balance between work and home life.

**REFERENCES**


