

HOW IS JOB SATISFACTION IN SPANISH BUILDING ENGINEERS INFLUENCED BY TRAINING?

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In business environments, training is one of the most important issues for human resource management. Through appropriate training, enterprises can rely on competent and motivated employees, ready to meet technological and strategic requirements. The aim of this study is to investigate training activities for building engineers developed by Spanish construction companies. But it also aims at analysing the effect of training on job satisfaction. A qualitative methodology has been applied, by means of semi-structured interviews to 34 building engineers. ATLAS-ti software has been used for the analysis of the interview contents. Findings reveal that, with the exception of a large company, no planned training has been developed in order to satisfy building engineers' needs. If any, there is initial training for management systems, as well compulsory training on risk prevention. Additionally, most engineers follow their own training courses, in order to update knowledge or improve promotion opportunities. Finally, the effect of training on job satisfaction tends to be positive, with increasing effects when it improves work post performance.

Keywords: human resource management, job satisfaction, qualitative research, training.

INTRODUCTION

Specialized literature reveals that human resources represent the most important and variable factor of the production process, besides being a vital and strategic element for any organization whose target is to improve its productivity and competitiveness (Kazaz and Ulubeyli 2007). Thus, the implementation of policies and practices related to human resources, such as those regarding selection, recruitment procedures, training, incentives and assessment, is closely related to the overall performance of the company, which implies that human resources become a beneficial source of competitiveness (Osman *et al.* 2011).

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Different researches consider training one of the most important issues in the field of human resources (Loosemore *et al.* 2003, Porret 2007). This is so because training is an essential factor whenever availability and suitability of skilled workers, able to adapt themselves to the technological and strategic needs of the company, are required (Porret 2007). On the other hand, training is also essential to ensure that employees get the appropriate skills to carry out their work successfully (Loosemore *et al.* 2003, Osman *et al.* 2011). Companies involved in effective training programmes are better equipped to recruit workers more satisfied with their job and, consequently, more committed to the company. Moreover, while satisfied workers are generally willing to accept the objectives and values of the organization (Schmidt 2007), lack of training or training that does not fulfil workers' expectations and needs will generate negative attitudes (Schmidt 2009).

Until now, the study of training actions has mainly focused on large organizations. Some researches highlight the fact that small companies seldom offer training or opportunities for the development of their human resources (Petrescu and Simmons 2008, Wang *et al.* 2010), or that the quality of training is better in large companies than in small ones (Georgellis and Lange 2007). It is generally believed that small companies lack either the time or the financial resources to develop their human resources, although there are studies that show just the opposite (Rowden 2002).

What calls our attention is that most studies on human resources training have focused their research on large companies, despite the fact that the economic driving force in many countries is generated by small and medium companies (Pajo *et al.* 2010), which in the past decade were also the main source of employment in the world (Wang *et al.* 2010). Furthermore, research on this topic has been very limited or nonexistent for the Spanish construction industry.

In the Spanish context, at an institutional level, although social agents have made efforts to design policies promoting training, Spain features lower levels of investment in training than most European countries (Cabrero and Carretero 2005). On the other hand, at an organizational level, firms tend to select HRM practices, including training, on a pick-and-choose basis. This implies that most training has been carried out in an informal fashion, has tended to be reactive, focusing on short-term results and with little systematic assessment of training needs. This Spanish preference for management improvisation is due to "a low future orientation, and to the combination of high power distance and low institutional collectivism" (Cabrero and Carretero 2005, p. 11).

In a more recent bibliographic review on human resources management in Spain, Rodríguez and Martínez (2010) also found that training culture was scarcely developed. Investments on training were selective and limited, and generally geared towards the training of senior management teams. As for several decades labour costs had been the main competitive advantage of the country, most companies paid little or no attention at all to the development of their human resources.

In the light of the continuous technological advances the construction industry is undergoing, professionals in construction companies are being forced to constantly update their practices, because, sooner or later, failure to modernize would lead to obsolescence. Another aspect to be remarked is the change in legislative rules and regulations concerning the project, the design and the construction itself, for in its turn, this change implies modifications in the way gauging, building, and control of construction works is carried out. In Spain, a clear example of this was the

enforcement of the Technical Building Code, in 2006, which brought along a whole legislative change for each building unit: structures, enclosure elements, installations, etc.

In order to fill a research gap, the aim of this study is to explore training strategies developed by small and medium construction companies for building engineers, as well as the effect of this training on job satisfaction. The study has been carried out in the Castilla- La Mancha Autonomous Community, using a qualitative methodology. Following the definition from the European Commission (Commission of the European Communities 2003), construction companies within the geographical context of our research can be classified as SMEs. In the year 2008, 1,564 companies employed less than 10 workers; 1,651 less than 50, and 145 employed less than 500 ("Instituto Nacional de Estadística" 2012, National Institute of Statistics). This means that our results are mainly focused on construction SMEs.

VARIABLES OF STUDY

Job satisfaction

The study of job satisfaction has been approached from manifold viewpoints, which have enriched its definition with different nuances. Thus, some authors state that there is not a universal and agreed-upon definition as such for the term (Bravo *et al.* 2002, Navarro *et al.* 2010). Here we will use the definition provided by Spector (1997, p.2), according to which job satisfaction is how people feel at work, including a variety of aspects related to it. It can be understood as an extension of what people like (satisfaction) or dislike (dissatisfaction) about their job. Job satisfaction can be approached either as a general and global feeling about work in general, or as a group of attitudes related to different and specific labour issues.

Although there exists a variety of factors affecting job satisfaction (Pajo *et al.* 2010), which implies that it can be examined from different viewpoints by using different categories or concepts (Schmidt 2007), in this research only training activities developed by construction companies will be considered.

Training

Employees' training can be understood as a process aiming at learning, improving and developing knowledge, attitudes and skills. In this way, either job performance can be improved (Akhavam Tabassi and Abu Bakar 2009, Loosemore *et al.* 2003, Schmidt 2007), or attitudes and social behaviours in disagreement with the company's objectives and the job's requirements modified (Schmidt 2007).

According to Loosemore *et al.* (2003), the main objective in training is a permanent change in the behaviour of employees, in order to achieve improvements that meet the company's needs. Furthermore, Owoyemi *et al.* (2011) found out that several authors defined training as the company's ability to develop the necessary skills and knowledge that would enable workers to perform present and future tasks. In this sense, the training process requires a planned, systematic and cyclic programme of actions that allows the identification and successful solving of the training needs, not only of the individual but of the enterprise itself (Porret 2007, Raiden *et al.* 2009).

Various studies and surveys show that training and opportunities for learning new things are influential factors on job satisfaction (Schmidt 2007, Slattery *et al.* 2006). Rose (2005) and Petrescu and Simmons (2008) have confirmed this positive relationship for British employees. Different workers such as shop floor employees in

the automotive industries in Malaysia (Dawal *et al.* 2009) or women in the USA construction trades (Dabke *et al.* 2008) have also shown the positive influence. In Spain, the same result has also been found for construction professionals (Navarro-Astor *et al.* 2010), but the sample in this case included architects as well as building engineers, and companies participating in the research were not just SMEs.

RESEARCH APPROACH

With the help of the “Colegio Oficial de Aparejadores, Arquitectos Técnicos e Ingenieros de la Edificación” (Building engineers’ professional body) in the city of Cuenca, a request for participation in the study, including the objective of the research, was sent via e-mail. It was addressed to licensed building engineers working as site managers in construction companies. Only four of them answered directly that first e-mail; the rest of the interviews had to be arranged by asking these first four participants, or even our own colleagues, the telephone numbers of engineers they knew working as construction site managers. In this way, we applied the snow-ball technique until a 34 individuals sample was reached. Participation of professionals was facilitated by arranging interviews according to personal time-place convenience. Interviews, with an average duration of 60 minutes, were carried out in the following places: researchers’ office in the Polytechnic School (38%), offices/building site huts in place of work (38%), and cafeterias (24%). The provinces where participants were working at the time were Cuenca (53%), Albacete (26%), Ciudad Real (12%), Toledo (6%), and Guadalajara (3%). For identification throughout transcriptions, participants are assigned a number.

The sample consisted of 27 males and 7 females, within a 23-63 age span. 15% of respondents were under 29 years of age, 23% between 30 and 33, 47% between 34 and 37, 12% between 38 and 40 and 3% were over 60. In relation to family status, 65% were married, 3% had a partner, and the 32% of the rest were single. 27% of the married participants had no children, while 46% had two children, and 27% just one. All of them had a degree in Building Engineering. As regards their occupation 9% were working as liberal professionals in construction project management teams, 6% had their own construction company, and 85% were working as site/construction project managers or as team directors. In relation to company size, 10% of participants worked at micro companies (less than 10 workers), 39% at small (less than 50 workers), 41% were medium (less than 251 workers) and for the remaining 10%, the number of workers ranged between 250 and 1,000.

Interviews were recorded for later transcription, on which the final document writing would be based. For the analysis of this document the ATLAS-ti software programme was used. This allowed identification of citations and codes through which information could be found and compared. The analysis of answers has let us identify common patterns, but we have also tried to provide descriptive information of how questions were perceived by each participant (Fellows and Liu 2008). Since we followed Glaser’s methodology, no preconceived assumptions were established at the beginning of the research. Thus, inductive analysis was applied to the survey contents (Hunter and Kelly 2008).

The exploratory analysis derived from this methodology allowed the finding of regularities, which in turn allowed the generation of codes and categories. Relations between data and categories have been established by means of an interpretative analysis, trying to describe the phenomena studied, with the aim of developing a theoretical model (Charmaz 2006).

RESULTS

Company training provision

Few building engineers report complete lack of training while at work. Two of them belong to micro companies, another two to small companies, and one of them to an enterprise with more than 250 workers. This situation was due to the size of the company, the low volume of work carried out, or to the long distance between place of work and town where training took place, which prevented course attendance.

The common pattern for the rest of responses is that neither planning nor uniformity matter. In medium-size companies (50 to 250 employees), there are cases where initial training is offered on the use of organization management system software, especially if it is available within the company. Some compulsory courses on labour risk prevention may be also offered. This supports those highlighting that organizations in construction restrict their training to mandatory requirements which have been imposed upon the employer by legislation (Loosemore *et al.* 2003).

Only one larger company, employing more than 250 people, has been reported as offering a comprehensive training programme. They provide technical, management, planning, computing courses and the like. At the beginning of the year the company advertises different courses that can be selected according to personal needs.

The policy in some organizations between 10 and 50 workers was to offer payment for attendance to courses in which building engineers were interested: “We are free to say: ‘listen, I’m taking this course’, because the company has paid us lots of courses, ... You would say: ‘listen, look, there is a course on this and that’”; and the boss just said: ‘don’t worry, register, and we’ll pay’”. (Nº 15)

There is a shortage of training actions in micro companies, in which training, if any, seems to be mainly oriented to site management or management software used by the company. Training carried out in these companies is clearly less than in the rest. None of them pay or subsidize training carried out by building engineers at their own expenses.

Courses defined by Loosemore *et al.* (2003) as off-the-job courses, are the most common. They cover areas ranging from management software and quality control to installations, construction, environmental management or specific software such as PRESTO or Microsoft Project, with a predominance of choice for technical and technological subjects rather than for management. Nevertheless, courses on labour risk prevention are at the top of all training programmes, since companies are obliged by legislation to provide a minimum specific training on the matter (Dirección General de Trabajo 2007). This fact accords with research that shows how institutions and regulation may in fact underpin improvements in employment and working conditions (Hannon 2010).

Some participants reported their opportunity to attend courses organized by “Fundación Laboral de la Construcción” (Construction Labour Foundation). According to the IV General Collective Agreement of the Construction Industry, 0,25% of the company’s wage bill must serve to allocate funds for this foundation. The purpose of this foundation is to guarantee the provision of services to both workers and companies covered by the Collective Agreement (Dirección General de Trabajo 2007). The disadvantage of this option is that the employee has to pay attention to the courses offered by the Labour Foundation, in order to apply through the company. But companies seldom inform their workers about such training.

“That, all those from the Labour Foundation are paid by the company, but also because they have some money for training, which is taken away from the workers’ wages. So it is the company who has and coordinates training...because they can’t say no, because the training is there, but that’s the problem, that if you don’t do anything neither does the company”. (Nº 25)

With the exception of large companies, which usually offer training both on management systems and labour risk prevention, the common characteristic of construction enterprises is precisely their lack of planned training, with respect to both contents and objectives. Training seems to be left to the discretion of the building engineer, according to his own interests or the courses on offer.

Training on building engineers’ account

Showing building engineers’ interest and motivation to learn, more than half of the participants followed training courses on their own account. These courses ranged from short courses on technical specialization, organized by the professional bodies, to Master courses. Most of them dealt with health, safety and labour risk prevention. Seven interviewees were also following a university degree.

A strong personal drive was always behind training on their own account, that is, a desire to be updated, to increase abilities and competences, but also a desire to improve new job opportunities, should companies sack them. In any case, what they all wanted was to broaden their employability capacities (Navarro-Astor and Fuentes-del-Burgo 2011).

A few participants (around 9%) reported training opened to them the opportunity to find a better job, because they were not happy working as site managers: “If you want promotion, to leave the building site cesspit, apart from a degree, you need something else” (Nº 10).

Factors hindering training

Three types of barriers to training have been identified by building engineers. They are not mutually exclusive and may come up together.

On the one hand, there are factors related to working conditions, such as continuous overwork and distance between place of work and residence. This implies lack of time for proper training.

On the other hand, there exist specific obstacles related to the companies themselves, such as size, lack of training investment and training actions, but also narrow-minded employers. In relation to the latter, participant Nº 14 reported: “but somehow my company’s policy is: “I’m not going to offer you any training, because once you’ve got it you’ll leave”. Other examples show that employers believe time devoted to training is unproductive: “it’s hard to release people from a project, even if it implies leaving just half an hour earlier... even though the person is making an effort to participate in training. Training is hard” (Nº 17).

Finally, building engineers’ human personal factors are also highlighted. We can mention, for example, those concerning “work-life-training” balance, since participants have to leave out their family life and personal interests in order to participate in training activities.

Influence on job satisfaction

No uniform response has been provided with respect to the effect of training on job satisfaction. 18% of the participants reported personal individual training had improved their job satisfaction. The same opinion was shared by 26% with respect to training provided by the company. Finally, 6% declared feeling personal satisfaction with the knowledge acquired through training actions.

Due to lack of training offered by their employers, building engineers upholding the view that training could be beneficial for the companies, acknowledged feeling uneasy and a lack of understanding: "I believe they should offer some training, it's also good for companies to have trained people" (N° 28). The following fragment also illustrates this fact: "it is in their own interest, training workers has a positive impact in the company, ..., it would be really satisfying that the company would train us or would give us some extra money for training" (N° 22).

On the other hand, 18% recalled that their favourite training was training that could be applied to their job, a result supported by other researchers (Osman *et al.* 2011, Rowden 2002). This refers to the nature of the training and whether it involves the provision of underpinning knowledge that enables workers to better understand the nature of activities they undertake and provides them with a platform from which they can go on to exercise higher-level skills (Hannon 2010). Our participants enjoyed the possibility of being able to solve new problems or communicating with other professionals involved in project execution, being aware of what people talk about when facing different work site units: "You do like to be trained on aspects that you are required to develop at work afterwards" (N° 24).

In this sense, their assertions reinforce the principle that training should be carried out in order to increase the skills needed by the employees while at work (Raiden *et al.* 2009).

Finally, other reasons for participating in training are the need for knowledge updating or getting ready for professional promotion, but also because of the very joy training experiences can bring: "I like to be trained, I'd like to participate in training a lot more, the more training the better" (N° 2).

CONCLUSIONS

Despite the limited size of the sample and qualitative approach applied to the research, it can be assumed that training in small and medium-sized Spanish construction companies is not a general practice. By 'general' we mean both the level and sense assumed by human resource management literature. In most cases, if any, there is initial training for building engineers involved in management systems within the companies.

Training programmes in Spanish construction SMEs are not sufficient or well planned. This may be due to a lack of formal human resource departments. With few exceptions, training provision is limited to compulsory training on risk prevention, as required by law, or to training offered by the professional body and similar entities. In any case, programmes like this can hardly meet either the present or future needs of enterprises. This situation, along with investment constraints, does prevent training from properly fulfilling its function.

In general, training is left, at best, to the choice of the building engineer. Companies do not provide any specification of needs. By doing this they fail to meet the

psychological expectations of employees and stand to lose their most able and ambitious personnel to their competitors in an increasingly competitive marketplace for good people.

It has also been found that most participants use their own resources to continue training through Master and technical courses. They continually look for knowledge updating and improvement of skills related to their work post. But training also increases opportunities for promotion or change of job. When companies offer inadequate training or it is non-existent, building engineers are forced to make up for it at their own expenses enrolling in available courses around their working area or in internet courses.

Finally, more than half of building engineers state that training affects positively job satisfaction. Like in other studies, it can be confirmed that both training provided by enterprises or specific courses taken individually do always affect positively job satisfaction.

What has been stated above, or even other factors more closely related to building engineers themselves (personality, employability, updating of knowledge, professional training and development), may explain why the majority of participants take responsibility for their own learning.

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