

Conference on ENTERprise Information Systems / International Conference on Project  
MANagement / Conference on Health and Social Care Information Systems and Technologies,  
CENTERIS / ProjMAN / HCist 2015 October 7-9, 2015

## Hints to Improve Motivation in Construction Companies

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### Abstract

Motivation in work teams has a key role to play for the survival and competitiveness of businesses in the harsh environment of economic recession. This paper characterizes motivation in small and medium-sized construction companies in Portugal. It draws on data collected from in-person surveys which were carried out to employees of 32 companies. Results reveal the presence of some motivating factors specific to the profession such as the fact that the work requires a wide range of skills and is not very routine. Also, although employees in general feel a sense of equity and recognize that managers provide constant feedback, results show the need for improvement in motivation's management, particularly in regard to more autonomy and participation in setting goals.

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Peer-review under responsibility of SciKA - Association for Promotion and Dissemination of Scientific Knowledge

*Keywords:* motivation, management, civil construction.

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### 1. Introduction

The context of European economic recession has aggravated the decline of the construction sector of southern European countries. In Portugal, between 2005 and 2010, construction accumulated successive losses of over 24%. In 2012, the civil engineering sector was the most affected with a production fall, measured in constant prices, of around 7.5%<sup>1</sup>. The civil construction industry relies on a business structure with predominantly unspecialized micro, small

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and medium companies, often using subcontractors or being subcontracted<sup>2</sup>. In 2012, the Civil Construction and Public Works sector (CCOP) was constituted by 88,787 firms employing 344,185 workers. 93.8% of the companies were micro-businesses (under 10 employees) and small companies with fewer than 50 employees represented 5,7%<sup>3</sup> of total companies. In most of the companies, labor is intensive and the workforce is characterized by a high proportion of young males (who work in some cases illegally or without contracts). Over half of the employees have no or low qualifications, promoting high job insecurity. Wages are lower than the national average. The industry has a high manpower turnover: over 70% of employees have been employed in their company for less than 4 years<sup>2</sup>.

If under normal circumstances the motivation of employees is a determining factor for companies' success and competitiveness<sup>4</sup> during recession times, it is even more essential to seek the best way to motivate human resources in order to improve the organizational climate, maximize the performance of professionals, specially their productivity<sup>5</sup>. Adopting motivation and retention strategies may improve organizational efficiency, increase productivity and profitability as well as satisfy the individual needs of employees (reducing stress and job insecurity while boosting loyalty, commitment and job satisfaction)<sup>6</sup>, thus, helping to meet the demands of an increasingly competitive market<sup>7</sup>.

A brief overview of the research recently published on employees' motivation shows that it covers a large range of issues from diverse theoretical perspectives. Among them, the role played by intrinsic/extrinsic motivation, incentives, training and coaching, the effects of job-design, conflicts and leadership. Although the great majority of studies address these issues in general, some assess them from the perspective of a specific economic sector, for example the health service.

The present study makes a contribution in an area where the specific literature on motivation in the construction industry is scarce, particularly in Portugal. It is relevant since it sheds light on the aspects leading to increased motivation especially in small and medium sized companies. Thus this article seeks to answer the following question: what are the present characteristics/aspects of motivation management in construction companies, and more specifically in small and medium size ones? In which aspects is there room for improvement?

Although our original research gathered information from both perspectives (from the managers' point of view and from their respective employees), the first step of our study, presented here, is to answer to the above question from the employees' perspective.

Responding to this question will lead us to infer, in regard to the theoretical used framework, the actual limitations in motivation management and possible improvements.

In order to capture the most significant aspects and issues at play regarding employees' motivation and instead of narrowing our scope on one or another aspect of motivation, we made the decision to conduct our investigation using the comprehension that fundamental international theories on motivation can provide on this matter. We shall start outlining them since they will serve us to build our theoretical and methodological instrument of investigation. We will then present the instrument of investigation and the results of a questionnaire applied to employees of 32 micro, small and medium-sized construction companies of the municipality of Vila Real. This survey aimed to gather the opinions and feelings of the workers regarding motivation, their needs and the characteristics of their work. The results are discussed in light of the concepts outlined by the theories of motivation presented earlier. Some hints for improvements are then presented in the conclusion.

## **2. Brief Review of Theories on Motivation**

According to authors such as Maslow, and later Alderfer and McClelland, motivation is associated with the idea of a purpose that an individual seeks to achieve. They consider it a need within a person which, if withheld, will have a mobilizing effect, and if satisfied, even partially, will trigger a new need. Maslow ranked human needs in a hierarchical way beginning with physiological needs and then proceeding respectively with the needs for safety, love and belonging, esteem, self-realization, knowledge and aesthetics<sup>8</sup>. McClelland also identified three levels of needs (power, achievement, affiliation), while arguing that individuals are strongly motivated by only one of these types, being possible to configure a psychological profile for each person<sup>9</sup>.

McGregor<sup>10</sup> added an organizational variant, more specifically the influence of managers, showing that they create an environment that reflects their beliefs and values about employees<sup>11</sup>. McGregor presents two theoretical models of opposing managers. Theory X assumes that managers believe that humans have an aversion to work and are irresponsible by nature. This type of manager is likely to use rewards and punishments as motivators as well as many

rules and procedures, creating an environment “we veruss they”<sup>12</sup>. Theory Y focuses on valuing employees, providing them with stimulating conditions to achieve their goals and meet their needs, believing that human beings are motivated by the need for personal fulfillment, productive work, acceptance of responsibilities, etc.<sup>13</sup>. These managers are for the most part democratic managers, using participative management techniques and managing by objectives<sup>4</sup>.

Stacey Adams<sup>14</sup> made a further contribution by formulating his theory of equity: in a work situation, the individual continually makes comparisons with other workers about the contributions and the compensations they receive. These constant comparisons give rise in each individual to a perception of equity (balance between performance and reward of the individual and the group) or inequity (inequality, injustice and disrespect for equal rights)<sup>13</sup>. Stacey Adams defended that individuals are motivated to reduce any unequal treatment that they may perceive<sup>4</sup>.

Several other authors have made contributions regarding organizational context. Herzberg<sup>15</sup> established an explicit boundary between variables related to the context or environment of work (hygiene factors) and variables inherent in to the very nature of the work, its content and its implementation (motivational factors), predicting that motivation increases from the moment when the focus is not solely on the surrounding factors of workplace, but rather on the characteristics of the work itself. Herzberg distinguishes between hygiene factors (salary, status, security and working conditions) which (should they not exist) can trigger feelings of job dissatisfaction, and motivational factors (personal achievement, recognition, development) that are linked to satisfaction resulting from completion of the actual work itself<sup>13</sup>. Herzberg introduces the concept of job enrichment<sup>15</sup>, advocating that managers should seek to introduce more tasks and promote other skills in order to increase employees’ motivation.

Edward Deci<sup>16</sup>, in a parallel line to Herzberg, extended the concept of motivation including terms as the need for competence and self-determination to explain the motivational phenomenon, highlighting the importance of the interaction of the individual with environmental factors. The Deci’s theory<sup>16</sup> is based on two motivational subsystems, the intrinsic, such as self-achievement and responsibility, and the extrinsic, such as remuneration, promotion, working conditions, etc..<sup>17</sup> The result of applying this theory is characterized by the development of a sense of choice and autonomy in individual actions, emerging from a greater creativity, self-esteem and well-being. If the organization gives preference to external motivation systems, valuing the monetary rewards at the expense of career promotions, the result could be a decrease in intrinsic motivation.

Hackman and Oldham<sup>18</sup> revisited Turner and Lawrence’s<sup>19</sup> job characteristics theory and specify the conditions under which individuals become more internally motivated to perform their work effectively. According to their theory, it is essential that work combines variety of tasks and skills involved, that workers identify with the task (doing a job from start to completion), that the importance of the work is perceived, that a sense of autonomy is felt and constant feedback received. This theory was further studied, enhanced and developed in research conducted by Csikszentmihalyi<sup>20</sup>.

Luthans & Kreitner<sup>21</sup> also provided input by developing the theory of organizational behaviour modification (OB Mod), whereby employees’ behaviours can be modified in order to benefit the organization itself, using strategies of positive reinforcement for appropriate behaviours or punishment to discourage undesirable behaviours.

Victor Vroom discusses motivation from another perspective whereby the process of motivation is based on the objectives of each individual’s choices and his expectation to achieve his/her goals<sup>22</sup>. According to Vroom’s theory, for an employee to be motivated, he needs to give value to the result or reward, and needs to believe that further work will lead to improved performance and that the best performance will produce superior results and consequent rewards. This theory highlights the importance of clear rules that link performance and reward, enabling all individuals to know clearly what is expected from them and the parameters their performance will be evaluated with<sup>23</sup>.

Locke & Latham focus on the importance of setting goals<sup>24</sup>. They argue that a challenging, specific and attainable goal stimulates motivation and persistence, focusing the work of the employees. In employees’ minds, success in achieving a goal generates a positive reward feeling, not necessarily monetary or tangible, but an internal reward for that accomplishment<sup>25</sup>.

### 3. Brief review of Motivation in the Civil Construction Industry

Research on motivation in construction companies is scant and in Portugal non-existent. Lim and Ling argue in their study that it is important for contractors to establish a satisfactory working environment and that there is a correlation between job satisfaction and practices such as valuing employees’ efforts, involving them in making key

decisions, allocating workload appropriately, applying a method of performance appraisal and adopting an adequate organizational structure<sup>26</sup>. In Taiwan, Liao, Wen and Yu stress that job commitment is a mediating factor through which job characteristics influence job satisfaction<sup>27</sup>. Tabassi, Ramli and Bakar show that implementing practical training and motivation leads to improvements in teamwork and efficiency in performing tasks<sup>28</sup>. In the USA, Dai, Goodrum and Maloney studied construction workers’ perception of factors affecting their productivity, thus approaching motivation indirectly<sup>29</sup>. They conclude that the factors that most affect their productivity involve tools, supplies, materials, project management and construction equipment.

In the civil construction sector in Portugal, numerous articles and studies have been published in the field of construction management. However, their main focus lies on areas such as risk management, quality management, waste management, conflict management, management of public-private partnerships, yard management, etc.

In summary, as far as human resource management in construction companies is concerned, and in particular management of employees’ motivation, very little research has been conducted. The present work aims to make a step in that direction. Supported by the broader review outlined above and in the light of the different theoretical analyzed approaches, it will characterize motivation management practices in the construction sector in Portugal, contributing to the general discussion of this subject.

#### 4. Research Method

Within the social sciences, the most frequently chosen research instrument is the survey<sup>30</sup>. Yaremko et al. state that the core element of a survey is the questionnaire<sup>31</sup>, namely “a set of questions on a topic that does not test the respondent’s ability, but measures his opinion, interests, aspects of his personality and biographical information” (p. 186). For the original research and in order to understand both sides of the issue (managers on the one hand, workers on the other), two separate but comparable questionnaires were developed, using the key concepts from the theories of motivation presented, to approach a wide range of situations and explanatory perspectives. Table 1 shows the objectives of the surveys for managers and employees. These objectives were subsequently transformed into questions in the respective questionnaires.

Table 1. Objectives of the manager and employee surveys.

Theories of Motivation	Managers’ Survey	Employees’ Survey
Maslow’s Theory of Needs		Identify the needs that motivate employees.
McClelland’s Theory of Needs	Identify the needs that motivate managers.	
McGregor’s Theory X and Theory Y	Find out whether managers apply an autocratic leadership or a democratic leadership style.	
Herzberg’s Theory of Needs	Find out the importance given by managers to hygiene factors and motivating factors.	
Theory of Job Characteristics	Find out if managers allow employees to vary their tasks and to remain involved in a work project from start to finish. Find out the autonomy given to employees. Find out ifr managers gives feedback, clearly and directly about the effectiveness of employees’ work	Understand what employees feel about their work, what feelings they have towards the final product , how /if employees identify themselves with their work, if employees perform various tasks and mobilize diverse skills, if there is a sense of routine and what degree of autonomy is perceived by the employees. Find out whether the employees receive feedback.
OB Mod Theory	Find out if good behaviour is rewarded and bad behaviour punished.	
Adams’ theory of Equity		Identify if employees have feelings of equity or inequity.
Theory of Expectation	Find out whether employees know exactly what is expected from them and what parameters are used to assess them, whether there are clear rules linking performance and reward and whether incentives are awarded.	Find out whether employees perceive work to be attractive. Find out employees’ perceptions of effort-performance and performance-reward.

The questionnaires were divided in two parts. The first aimed at characterizing the respondents (in terms of age, gender, education level, experience, years in the profession and in the company), the second allowed the collection of data from the respondents' perceptions about motivation management. The language used in the questionnaire and the structure of the questions were simple, designed to suit the respondents' level of education. Once the questionnaires were drafted, they were tested with 3 managers and 13 employees. Following the necessary corrections, the questionnaires were administered. It was decided that the survey would target SMEs, given their importance in the sector (see above). Companies were selected randomly. For logistical reasons, the companies surveyed were operating in Vila Real (active building sites) between June and July 2012. No company was forewarned and all the questionnaires were carried out in person. A total of 32 companies were surveyed resulting in 144 respondents of whom 32 were managers and 112 employees. As announced in the introduction, this article focuses on the employees' responses. For practical reasons, it was decided to conduct a maximum of 5 questionnaires with the employees of each respective manager, thus registering an average of 3.5 employees' questionnaires per manager. Although the number of surveyed companies may seem small, it is statistically large enough to allow the drawn conclusions.

**5. Results**

The questionnaires focused on micro, small and medium-sized construction companies since 56% of the surveyed companies held a Class 2 building permit and 13% a higher class up to class 4 (Class permits in Portugal refer to the allowed dimension and the sub-sector of the performed work).

Results of the employees questionnaire show that 81% of the respondents were aged 35 or under and the majority (86%) had basic school qualifications. 78% of the employees had worked for more than 10 years as a construction workers but the length of time they had been in their respective company varied, with only 30% having spent over 10 years in the actual company: 20% between 6 and 10 years, 30% between 3 and 5 years and 20% less than 2 years.

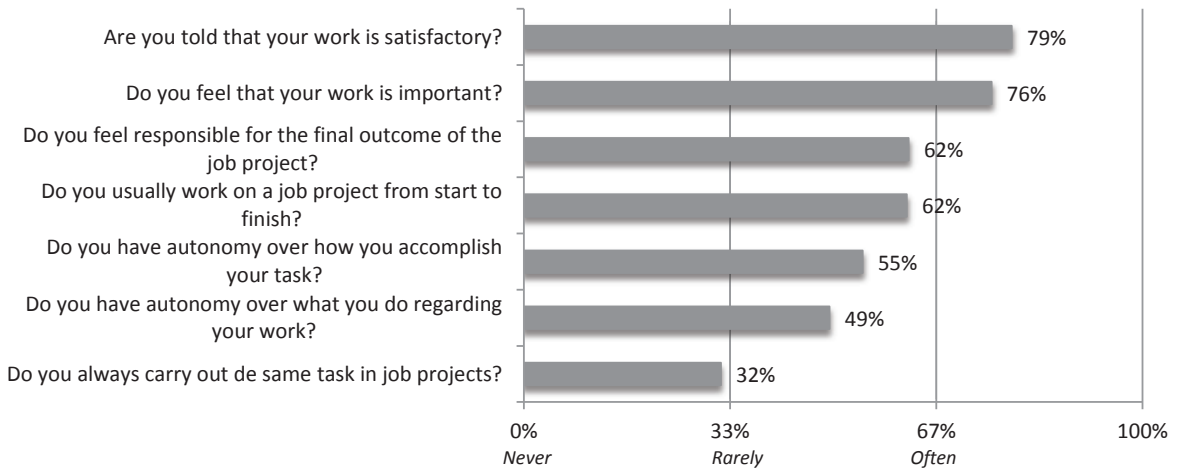


Fig. 1. Ranking of job characteristics from the point of view of the employees

Results show (see Fig. 1) that the majority of the employees received feedback and felt that they were valued for their work. They less often felt a sense of responsibility (62% of the respondents worked on a job project from start to finish) and likewise had a sense of autonomy over what they did (49% of cases) and defined how they did it (55% of cases). A positive result is that only a minority felt that their work was a routine (only 32% always did same task in a construction project).

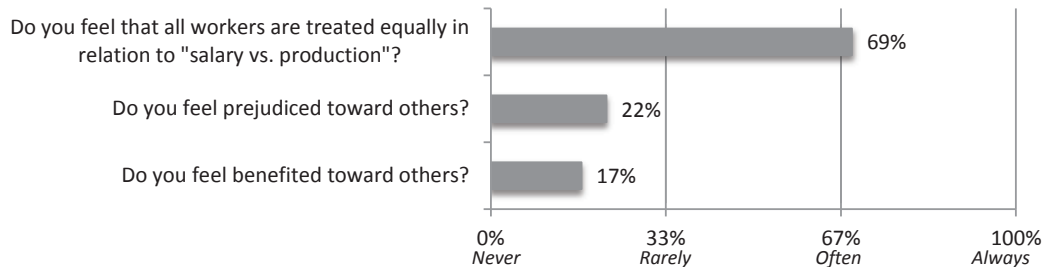


Fig. 2. Workers' sense of equity

It is also positive, with reference to Adams<sup>14</sup>, that in general there was a feeling of equity: only a small percentage of them felt disadvantaged (22% of cases) or advantaged (17% of cases) when compared to others (Fig. 2). This result is important for a good organizational environment since, as Adams' equity theory<sup>14</sup> states, individuals are motivated to reduce any and all treatment perceived as unequal (which could trigger instances of absenteeism, reduced production, etc..).

As for the expectations regarding work, results were positive. The majority of employees affirmed that they liked their work. However, only 57% considered that by working harder, the finished outcome would improve. Also, there was a bad feeling concerning the effort-reward relation since only 37% of employees said that if their performance improved, rewards also improved. These 37% of employees recognized that the rewards most frequently used by managers were verbal recognition, followed by gratification and then supply of goods and services. These results, analyzed according to Vroom's expectancy theory<sup>22</sup>, are negative since the theory identifies three types of assumptions (attractiveness of the work, performance-reward ratio, and stress-performance relationship) which the employees must feel/perceive with regard to their work. The low perception of the performance-reward ratio can be explained by it being a consequence of the inexistence of clear rules linking performance and its respective reward.

From the performed analysis, it can also be concluded that only 52% of the respondents felt that their opinion mattered to managers. Similarly, the percentage of employees who usually participated in setting goals was low. Finally when employees were asked to say what managers should do to motivate construction workers, the majority did not know. A small number of employees suggested that motivation could be increased by raising wages (21%), having more autonomy (13%), being paid on time and per hour (13%) and having more to say on the projects (10%).

Results allowed us to draw the profile (based on Maslow's theory) of the worker's needs by age. The most important need for the workers under 35 years was the feeling of independence, overriding all others. Regarding the age group of workers between 35 and 44 years, the most important need was to support the family (almost as important as the need for independence). With the increase of age, there is a decrease in the importance given to having independence, in favor to the need of supporting the family, this being more relevant in workers between 45 and 54 years. For workers between 55 and 64 years, socializing with peers was more important than the need to support the family. It should be noted that the need to socialize with colleagues always appeared among the three needs considered most important by workers.

## 6. Conclusion and Future work

The objective of the present work was to contribute to the discussion about motivation management and more specifically in the construction sector. It aimed at characterizing motivation management practices in the construction sector in Portugal, analyzing the perceptions of 112 employees from 32 micro and SMEs construction companies.

Results show that the specific characteristics of the profession itself constitute motivating factors: it involves variation in tasks and low level of routine. In the surveyed companies, motivation management is perceived positively by the workers regarding the continuous feedback received from managers and the general sense of equity among employees. Nevertheless, there is a need for improvement, particularly with regard to the use of motivational factors in connection with providing greater autonomy, greater workers' participation in setting goals as well as the development and dissemination of clear rules linking performance and delivered rewards. If these policies were to be implemented, they could lead to a lower turnover rate. It is important also to consider the different needs according to the ages of the workers, and thus their different motivations.

It was an appropriate decision to make extensive use of the principle traditional motivation theories as it enabled a broad range of motivational factors to be covered and taken into consideration. The theoretical and methodological limitations of this option concern the degree of depth that has been achieved to analyze each perspective. Although the number of companies surveyed was small, it is statistically large enough to allow the generalization of the conclusions drawn although we think it would be interesting to test them in a larger population for consolidation purposes. In future work we intend to analyze the data collected from the managers and compare these results.

The knowledge acquired about motivation management in small/medium construction companies lay the groundwork for a future proposal of a non-bureaucratic model for motivation management which should give more systematic consideration to: developing autonomy, goal setting participation, developing a rewards system, ways to give regular feedback to employees and training policies, among others. Applying such a model would not only reduce the number of entrenched structural problems in the Civil Construction industry, such as excessive employee mobility, lack of training and low appeal to the younger population, but would also make companies more competitive and increase the opportunity for employees' progression, providing them with skills, and subsequent performance.

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