Analysis of Labor Qualification in Civil Construction in Manaus Amazonas

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Abstract

Civil construction is one of the fastest growing sectors in Brazil, and in the state of Amazonas is no different, however, it is observed that several problems are affected by direct formal companies and one of them is the unskilled labor, especially when It deals with masons and servants, in these terms, the study of this study and analysis of the qualification of the labor in the civil construction in the city of Manaus-Am. To achieve the research objectives, in the first moment of this study a bibliographic research was carried out, based on books, articles and magazines already published, and in the second stage field research and it is also a qualitative research. And according to the two surveys, it was found that construction in Manaus needs to look for new ways to qualify its workers, so that the sector can be producing their buildings with better quality, as well as making their deliveries on time. Regarding the proposal to qualify the workforce, the surveyed companies will study a way to perform training for their workers.

Keywords: Construction; Labor; Manaus; Qualification;

1. Introduction

Civil construction is the industrial sector that represents a fundamental importance in the Brazilian economy. In addition to its importance related to economic and social aspects, construction has a very strong interference in nature. "It uses natural resources in a substantial way and this relates to the environment, whether in obtaining its raw material, or in the large amount of debris generated by the sector, as well as the use of urban space". (ALMEIDA, 2019, p.35).

In studies of Silva (2015), construction companies are currently at a very fast pace of undertaking and the number of these companies has grown considerably. However, the highlight will be that company renowned for its positive results regarding the efficient application of material and financial resources, respected deadlines, quality of products delivered, skilled labor, among others.

Second Pacheco (2016, p.14), "It is known that labor problems are very common in the construction sector, acting as time constraints and influencing project performance." In this sense, lack of manpower capacity increases rework and spread errors on the construction site, resulting in low productivity and increased deadlines for project execution.

The present study is of great relevance to professionals, as it is a topic much discussed today that also directly affects the economy as a whole in this sector. For society it is important because of the quality of work when they hire such professionals to perform small or even large works. For the academy it is necessary to bring this debate, as it refers to the quality of professionals that this sector needs to offer to its clients.

Given the above, this research aims to analyze the qualification of labor in civil construction in the city of Manaus-Am. The study will be carried out according to the methodology: firstly, a bibliographic survey will be made and then a field research, which will answer the objectives proposed in this research.

2. Methodology

2.1 Research Strategy and Classification

As a research strategy, the Case Study was adopted, analyzing two construction companies. "Case study refers to examining the real world as it exists in its natural environment" (POZZEBON e FREITAS, 1997, p.5). The research will be conducted at W3 Engenharia and Direcional Engenharia companies in Manaus-AM. The choice of work was due to the availability of access to the locus, as they are small facilities, as well as favoring the achievement of the research objective.

2.2 Study Population and Sample

The population consisted of 10 construction professionals (masons and housekeepers) who work in both companies. The research was conducted with a sample of subjects composed of 10 construction professionals, among them obtaining a total of 100% of the population.

Considering the analysis of technical procedures, the research developed as an empirical investigation. In the first moment through a survey of bibliographic materials and in the second moment field research, as shown in Figure 1.

Figure 1: construction workers
Source: Author 2019

2.3 Study Characterization

This research is qualitative in nature, the relevance of a qualitative approach to this research consists in the fact that it works in depth in the search for understanding a phenomenon (VÍCTORA; KNAUTH; HASSEN, 2000). As for the objective is characterized as a descriptive and exploratory study. It will have as method and technique the semi - structured interview that will use for the data analysis, the hermeneutic - dialectical method, as well as the application of a proposal for the qualification of the workforce.

2.4 Research Design

To reveal the construction industry: a case study on the qualification of the workforce in Manaus-AM, in the first stage, semi-structured interviews will be conducted with the professionals of the two construction companies in Manaus. In addition to the interviews, the second stage will be a survey of the problems involving unskilled labor in construction, in the third stage will be presented a proposal in companies with a view to mitigate the lack of qualification of labor in the construction sector in the city of Manaus. As the flowchart shows.

Figure 2: Research Steps
Source: Author 2019

The results will be presented in tables showing the qualitative data of this study. The research was developed through bibliographic studies and field research, which investigated the lack of qualification of labor in the civil construction in Manaus.

3. Civil Construction in the Amazon State

The construction industry sector creates jobs directly or indirectly, which favor the economy of the country. Second Leão (2016), "Civil construction is an industry sector that absorbs a significant number of workers, through direct or indirect jobs, having fundamental importance for the economy of the country."

For Carneiro et al. (2016), In the Amazon region, civil construction directly implies the use of natural resources. The region is known for its resource-rich natural wealth and, on the other, still has a very significant demand for infrastructure. This coupled with the growth of cities sets a scenario conducive to the expansion of the construction industry, as well as contributing to job creation in the Amazon.

According to Alves J. (2015, p.3), In this context of civil construction in the Amazon, the scarce and unskilled labor becomes a great torment for construction. the amount of waste and debris produced in this process.

4. Labor in Civil Construction.

The construction industry has had a strong growth, in this sense in the studies by Leão (2016), signaling the strong growth of the construction industry in recent years has caused a mismatch between supply and demand for skilled workers.

According to Silva (2017, p.3), “behind the responsibility given to engineers and construction managers, the important role of IES (Higher Education Institution) stands out”, which prepares this professional for the job market. work in its segment, which periodically needs to evaluate the quality of this training and its adequacy to the needs of.

According to Duarte et al. (2015), the contribution to the creation of a pleasant work environment and to the physical and mental well-being of workers has become a matter of strategy for the company, as it increases the dedication, loyalty and commitment of the worker, which reflects directly in the increase of productivity and quality of service, cost reduction and improvement of financial results mainly in the civil construction, being that sometimes these professionals are exposed to the sun and the rain.

For Serrado (2017, p.13), “soon the reduced quality of labor is considered as the most important subgroup to be considered in market risk”, followed by the reduced quality of construction equipment, thus realizing the importance the sector invest in the quality of the workforce and invest in its workers, as well as in their equipment, providing a favorable working environment for the development of their activities.

According to Anschau (2016, p.4), in this context, “in order to obtain a good use in the qualification of workers, it is of utmost importance to know the profile of the worker to be trained”, thus being able to include in the subjects related to their current reality, achieving this will draw the attention of the worker making the course or practice to be implemented becomes something pleasurable, thus having a simultaneous engagement with the company and greater use of its activities.

5. Labor Profile in Civil Construction

The profile of the workforce in Brazil is very archaic, that is, over the years little has been done so that it could have been more efficient in this segment, besides the companies themselves, when hiring their employees, require very little their qualifications.

According to Alves (2018), Brazil, when compared to other countries, the productivity of Brazilian workers' labor is significantly and historically discrepant, below average, thus it is observed the lack of concern of this sector to improve the quality of its workforce. constructions.

For Duarte et al. (2015), one of the characteristics of civil construction, is the intensive use of manpower, which uses little machinery in the execution of services. . In this sense, the workforce needs to be specialized in the execution of machinery, i.e., the profile required here is that the professional has at least one course for skills with machines aimed at construction.

According to Silva C. (2015), the Brazilian construction sector was built by hand by the hands of mostly illiterate workers without technical qualifications, now the sector pays the price of years without investments in personnel training.

For Silva (2017, p.2), "considering that the construction industry worldwide is responsible for the consumption of 50% of natural resources and 40% of energy inputs from all sources during the life cycle of buildings" . Thus, it is necessary that professionals are aware of these resources so that they can act with quality in their services.

According to Tavares (2006), in addition to the energy consumption in the useful life of buildings, the energy spent in the manufacture of building materials, in the work itself and in the deconstruction, is notorious the great responsibility that falls to these professionals. Such responsibilities could be avoided if these professionals were oriented with regard to execution and energy consumption.

For Castisiani and Castelo (2015, p.4), the construction worker, like the Brazilian worker, is on average older, works less hours per week and has more years of study. These are variations that, although timid, indicate advances.

5.1 Qualification of Labor in Manaus City

In Manaus, the construction workforce needs a qualification as well as a higher education, that is, the workers in this sector are mostly poorly trained, both in teaching knowledge and in the construction sector, and This directly influences the company's productivity results.

In the studies by Almeida and Silva (2019), training becomes the key to the construction market to supply the need for skilled labor and to maintain good performance and constructive quality. Quality minimizes production costs, guarantees a high level end product mainly at construction sites in Manaus, which in recent years has grown significantly.

In the studies by Silva C. (2015), professionals are preparing more and more and business opportunities are available to those who see ahead the advantages of implementing a Project Management culture that can contribute to the improvement. of the current framework of construction companies.

According to Almeida and Silva (2019), they indicate that they are low-educated workers, as this is a sector in which, to start working, it is not necessary to be literate or have knowledge of the profession. Even for

the employer, knowledge or experience is overlooked when hiring the workman. Just start as a servant and observe how others perform the tasks, so the Manauaras develop their activities in construction, without at least a course focused on the segment.

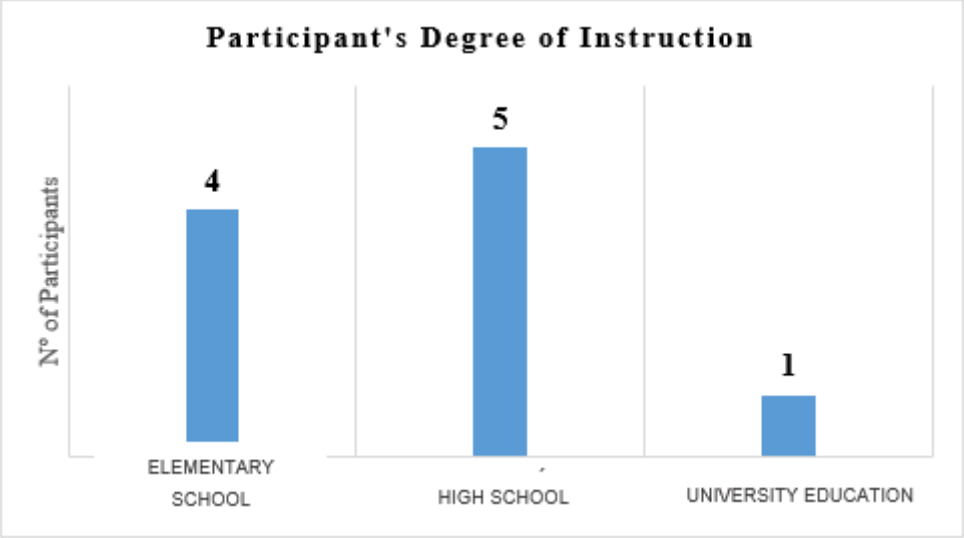
6. Discussion of Results and Analysis

The questionnaire was unveiled to professionals from the construction sector in Manaus and the results will be presented through graphs and speeches of the participants. The research was carried out in the following companies: W3 Engenharia and Direcional Engenharia, the components were: 05 professionals from the company W3 Engenharia and 05 from Direcional Engenharia, totaling 10 participants, 8 males and 2 females, with an average age of 29 years old.

Regarding the marital status of the participants, 5 are single, 3 married and 2 “others”. It was noticed that workers who are married have a greater responsibility for work than those who are single, because they work with commitment, due to the need for their families to support themselves.

When argued about how many salaries they receive, participants replied that they receive about 2 to 4 minimum wages and at the end of the year the tenth. In the construction industry, workers with a formal contract have their labor rights guaranteed, as in any other profession.

When asked about schooling the answer was 5 participants who answered that they have completed high school, 4 completed elementary school and 1 completed higher education as shown in Graph 1.



Graphic 1 - Degree of instruction
Source: Author (2019)

It is observed here that most professionals such as bricklayers and housekeepers have little study, some have only elementary school and a basic knowledge in the field. This reflects on the bottom line of overall business productivity.

The qualification is a requirement in contemporary times, that is, it is clear that there are few professionals seeking a study or a qualification in the construction sector, aiming for a greater gain in the accomplishment of their work. Within these contexts, Manaus construction workers are no different from other Brazilian capitals, yet express an interest in seeking more and more knowledge, but companies do not offer courses

to their employees and do not dispense early when they study or perform a training elsewhere. This could avoid various inconveniences regarding unskilled labor.

When asked about working time in construction, the participants answered: 1 worker with 9 months of service, 1 worker with 4 months of service, 1 worker with 2 months of service, 1 worker with 1 year of service, 1 worker with 1 year and 5 months, 3 workers with 2 years of service, 1 worker with 4 years of service and one worker with 5 years of service, as shown in Graph 2 below:

Graphic 2 - Worker's Length of Service
Source: Author (2019)

It was noticed that only 3 professionals have more than 3 years in the company, and the others have only months of service in the company where they work.

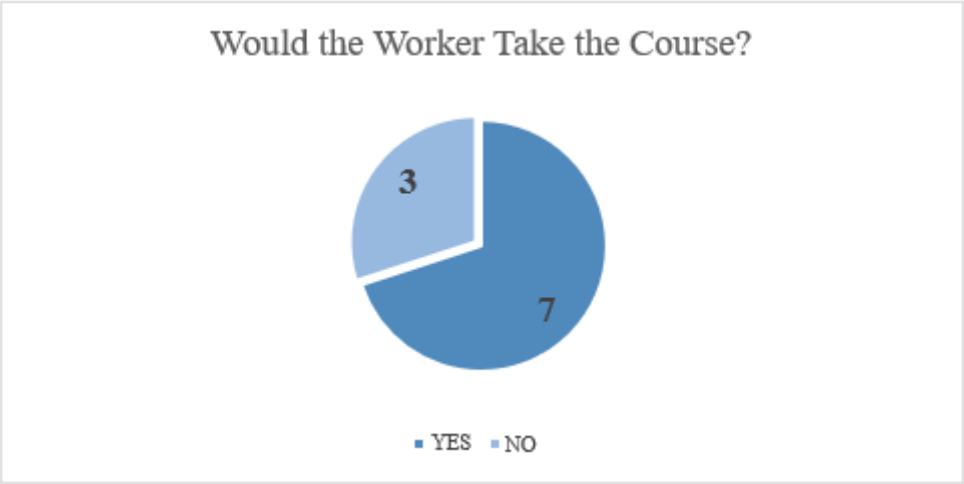
When argued about your work schedule? All responded that they work during business hours, totaling the workload of 40 hours per week. In both companies the professionals do not work overtime, so the work is only 40 hours per week and do not perform night work.

Regarding working time in the company, the answers were as follows: 5 W3 ENGENHARIA employees have between 1 years and 4 years in the company, the other 5 of the company DIRECIONAL ENGENHARIA has from 2 months to 2 years in the company.

When asked about, did you take a course to learn more about construction? All participants answered “no”. In fact, construction professionals such as bricklayers and servants learn the activity by looking at them by hand, that is, one is teaching what he knows to the other, without any teaching through courses. However, they aroused interest in participating, if the company offers a qualification course aimed at the branch.

When asked about: Does the company hire only qualified and experienced construction professionals? 1 participant answered “Yes: and 9 said “no ”.

Regarding the argument, if the company offered a labor qualification course would you attend? 7 participants answered “yes” and 3 said “no” as shown in Graph 3.



Graphic 3 - Worker's take course
Source: Author (2019)

It was observed that the professionals expressed interest in taking courses, if companies offer, in this sense, in order to improve their knowledge, as well as their qualification in the field that exercises within the company.

7. Conclusion

According to the bibliographical research, it was noticed that the construction industry has been successful in its growth in Brazil, however a big problem was observed with regard to skilled labor. However, several situations were presented, as one of the factors teaching, since most workers do not have even elementary school, especially when it comes to bricklayer and servant.

Regarding the salary received, construction workers are paid between 2 and 4 minimum wages, which enables a good living condition, because they can keep up with their earnings. However, he noted that most of the workers interviewed never took a course focused on construction or any other branch in this segment. But they pointed out that if they had in the company they would perform for sure.

Regarding the proposal of qualification of manpower in the company's W3 Engenharia and Direcional Engenharia, both were studying the possibility of implanting in the institution lectures and courses that allow their professionals more knowledge, as well as, more security in the accomplishment of their work. activities in the construction sector and also motivates them to finish their studies.

The study made it clear that, in order to have quality in the construction industry, it is necessary to invest in qualified labor, that is, companies must offer this training to their workers, because both the company and the professional gain when they have a job. quality, as well as ensuring safe and effective construction for society.

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