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IMPROVE OR JUST SURVIVE? DILIGENT SUPERVISION OPPORTUNITIES FOR THE CONSTRUCTION SME

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Abstract: The main objective of the article is to verify how construction supervision is carried out in various SME construction companies (Small and Medium Enterprises) and through the analysis of the measures implemented in the current context where improvement proposals are developed that support the fulfillment of the objectives. raised in the construction project. It is worth mentioning that, although there are standardized methodologies mainly in large companies and government agencies, on a day-to-day basis these are not applied at an operational level. In medium and small companies, the professional supervisory staff and direct representative of the company is par excellence one of its best assets, being the link in the field for customer satisfaction, which leads to responsibilities and through periodic updating the capital human can remain in integral development, which is essential to carry out the quality functions that the client expects for the capital invested to undertake new organizational goals.

Keywords: Supervision, Work, Improvement.

INTRODUCTION

The supervision of works and services is always an important subject in the field of the construction industry within the role of activities that a professional related to the field can assume. In small and medium-sized companies, supervision is an essential element that contributes to solid development, being the focus of constant attention due to the opportunities it can provide in efficient practice. In the academic environment, knowledge about supervision and actions are generated as part of the study plans. During the exercise of the profession, the necessary experience is acquired to contribute to the construction or provision of services. Although not all experiences are positive, they can be capitalized on through proper analysis.

The technical skills acquired and the continuous knowledge of professionals set the tone for best practices and consequently improve results for professional, business or institutional growth. In daily practice, the professional faces realities that add a greater degree of complexity, requiring notable attention due to the fact of assuming the responsibility of representing the interests, commitments and objectives between parties through the contracting of works and services with objectives. measurable in cost, time and determined quality.

In a segment of supervisors, as happens with the construction worker, there is an implicit rotation of technical, administrative and labor personnel. This shortens the possibility of establishing roots and permanence in an organization and taking advantage of the experience obtained, dispersing it in other companies or possibly institutions, even wasting the opportunity to continue developing talents. Efficient and dedicated construction supervision is in itself one of the most important organizational capabilities that maintains operational functions on a daily basis so that they develop comprehensively.

METHODOLOGY

In 2023, a survey was carried out among companies in the construction industry in the City of Chihuahua, Chih. Mexico. In this survey, 17 main sections were analyzed with multiple choice questions: quality, materials, time, cost, audit, contracts, human resources, supervision, communication, regulations, new technologies, administration, clients, business or institutional image, external organizations, evaluation, care for the environment with a total of 83 questions of which 128 participations were received from personnel with construction supervision functions in SME construction companies.

Based on the results of said survey, the most common factors in the current context have been determined to generate opportunities for improvement, outlining guidelines that can be addressed in the construction sector.

RESULTS AND DISCUSSION

In academic learning you have the opportunity to have a facilitator who guides controlled construction and supervision scenarios, presenting a wide range of activities and thereby allowing access to different parts of constructive knowledge. There is the possibility that construction supervision is more of a specialty derived from the professional career that provides a greater number of tools in working life. In general terms, when pursuing the quality of work, it is referred to as the sum of qualities, standards within a previously determined scope for the production of goods and services that make up the materialization of a design whose processes must be guaranteed and integrated into a set. highly functional for its implementation as it is part of a much broader system in an investment project where the time factor for each construction activity is immersed, measurable and agreed between those who sign a legal instrument for its due compliance at a convenient cost. based on careful planning in the best of cases. The general results that reveal the importance of supervision in the context of a given period of time are then discussed.

Human capital is implicit in the construction process; in itself it must be a social and economic goal to be developed. Regarding quality assurance, which must be customer-centered (Robbins, DeCenzo. 2008), the lack of trained or experienced personnel was considered by the survey participants by 70.8%, reflecting not the lack of personnel as such as there being sufficient supply in the locality, but the scarcity of practical technical

knowledge acquired showing indications for actions to improve academic linkage and insertion into professional activity.

When mentioning that there is insufficient supervisory personnel in their work areas, 22.3% express this, opening the possibility of evaluating and, where appropriate, reinforcing the results in educational institutions, being able to contribute to quality goals.

However, those surveyed also refer to the problems that prevent ensuring the quality of construction or service work due to the low quality of construction materials in 8.5%, while 30.8% consider that time is calculated incorrectly. of project execution. In this sense, both statements are valid and in themselves express various positions, from ethical action and lack of rectitude, diligence and inefficiency. These two traits not only persist in the company, but also in some cases the client himself who may assume during the progress of the project to reduce some costs that in the end may be detrimental to the goals set.

In fact, respondents state that the problems that arise with materials, supplies and services most frequently are the delay in agreed delivery in 80% and the lack of inventory in warehouse at suppliers in 27.7%.

In terms of time, many of the general execution deadlines that the client stipulates, in the case of the institutional area, are based on experiences or forced deadlines with the limitation of time in the annual budget cycles and little care in the planning that allows maturation the requirements in the work documents prior to contracting, realizing that there are areas of opportunity to compete and offer a good result and not to contract a commitment where it cannot be fully fulfilled. 47.7% of those surveyed state that construction delays are due to inadequate planning, 36.2% consider the lack of monitoring and control, 26.2% to the lack of materials or their low quality and 39.2% to the lack of personnel. trained worker.

In cost, the most frequent problems, 71.5%, indicate those surveyed, are unexpected expenses and 38.5% attribute it to the inefficiency of the staff.

Public and private works have peculiar characteristics that the professional needs to consider, of course the technical part is a common denominator when having the base knowledge. However, public works offers an impressive additional range of technical skill when entering governance terrain with countless laws, regulations, guidelines, manuals and procedures to attend to and keep in mind before, during and at the end of the project. The ethical aspect and fight against corruption permeate planning, execution, monitoring, control, evaluation of each phase and accountability in a much broader way than in the private sphere due to the fact of managing public resources in a universe diverse that expands the supervisory activity, applying the same regulations from the exercise of one cent to millions of pesos and the audit controls are equally applicable.

Regarding the most frequent problems that have been had with any audit, the non-compliance with rules and regulations established by government agencies and control entities, delays in the completion of a project, that is, non-compliance with scheduled deadlines with 35.4% and 38.5% respectively.

Respondents indicate that in 50.8% of the contracts the requirements are changed, 32.3% that the requirements are not met, 53.8% state that there are changes in the duration of the project and 13.8% that there is a lack of guarantee for the work. It is noticeable that changes in the contracted terms may occur because planning was insufficient and inefficient in some of the requirements that are sometimes intended to be corrected during execution; In this case, as can be seen, the client himself has a lot of responsibility

for the partial and final results. It must be remembered that if there is a lack of planning, this is transferred to the work contract and consequently to the supervision area, making evident greater diligence in the field work, both on the part of the supervisor, the client, and the contractor.

All of this predetermines greater time and availability to understand and understand how to act accordingly where the contractual commitments and responsibilities to be appropriately taken care of by the professional who participates in any federal, state or municipal government institution or agency are met. This sum of knowledge and skills of the institutional staff are often not fully compatible with the staff of the contractor or service company, although there are always implicit attempts for them to be absorbed by the contractor on occasions to reduce the workload that the institution imposes and that generally contrast naturally. The technical and administrative staff of the builder, fortunately, in public works has the advantage of shortening public activities, even giving themselves the opportunity to conserve and develop the technical aspects in a more affordable way that ultimately impact the quality of the goods and services.

In relation to human resources and specifically operational or technical personnel, the most frequently occurring problems that respondents mention are a shortage of qualified labor in 62.3%, insufficient training and development in 32.3%, and high staff turnover. in 37.7% and the lack of communication and/or coordination between operational or technical personnel in 36.2%. This high staff turnover is derived from unsatisfactory salaries and benefits expressed by 46.2%, precarious or unsafe working conditions 19.2%, lack of opportunities for development and professional growth 33.8%, negative work environment or tense

interpersonal relationships 25.4% and lack of Job stability 35.4%. A good opportunity presents itself not only in SMEs but also on the academic side that shows that it creates better technical co-responsibility, training, even salaries that are sometimes not competitive and in the long run do not motivate the continuous preparation of professionals.

In the aspects of supervision, the most frequent problems that those surveyed express are that there is too much desk work or also called office work versus field work in 32.3%, the lack of sufficient personnel to attend in detail to the daily problems of work in a 58.8%, the lack of authority in supervision to correct deviations 23.1% and the existence of agreements between the parties at higher hierarchical levels without taking into account supervisory personnel in 36.9%. On the other hand, respondents state that the supervision aspects to which the most time is dedicated are the review of work generators and estimates in 64.6%, reports to the authorities 21.5%, the capitalization of resources and their distribution to maintain progress 21.5%, verifying work details and making agreements with the builder 46.2% and visual inspection during execution 66.2%. When asked if there is generally a complete and consistent study or executive project, 33.8% stated that they always; Likewise, 42.3% mention that sometimes there are gaps and 25.4% mention that it is common practice to have an incomplete and inconsistent executive project. In general, there is an imbalance in the number of members that make up the technical staff in construction residences to attend to the direct supervision of the work and the control aspects. This occurs when, among other causes, the aim is to maintain an apparently competent price with a low indirect cost, but with the aforementioned consequences.

The problems in carrying out evaluations in this case are considered to be more frequent: the difficulties in collecting all the necessary data about the project, such as updated plans, reports, laboratory tests and other documents with 39.2% while the difficulty in dedicating enough time and personnel to carry out a comprehensive evaluation by 20%.

For this reason, supervision must be attentive and propose to compensate for the information needs, which, incidentally, must be complete and consistent prior to contracting the work. It is necessary in the construction and services field to highlight the areas of opportunity that are seen for greater competitiveness, including prestige to those who have the vocation to guarantee quality service in the correct time and manner.

One of the relevant factors in supervision is the communication between the technical and operational parts, emphasizing of course a successful dialogue. Those surveyed stated that there is not a sufficient approach to establish commitments and common goals in 62.3%, 21.5% indicated that their legitimate demands or needs are not listened to and 30.8% stated that other points of view are not considered to improve the projects. It can be deduced in advance that, along with technical and administrative knowledge, it is necessary to strengthen the capacities for constructive dialogue so that information flows to other collaborators, which is conducive to improving from the academic and organizational management base.

The technical part in the institutional professional, although present, is overwhelmingly subjected to the vast regulations when there is not an adequate number of technical personnel. The most frequent problems that are considered to prevent compliance with regulations established in the construction industry, whether municipal, state, federal or others, are ignorance of the current applicable

regulations or their updates; It is expressed by 60% of respondents and although corruption and lack of supervision by regulatory bodies is a much lower percentage with 17.7%, however, it is important to address this percentage.

Although actions have been taken to improve control aspects such as the use of electronic logs, other parties continue to slowly transition between manual, digital, and new technologies (IDB, 2021). The problems they face on a daily basis to make efficient and effective use of new technologies are the costs associated with the acquisition of equipment, software and training, which can be high, making their implementation difficult and the resistance to change due to being accustomed to the methods traditional with 49.2% and 50% respectively.

The simple technologies used in the field are generally executive in nature to show some progress of interest, numbers, problems, solutions and commitments in activities previously scheduled according to an agenda to a greater or greater extent depending on the client's hierarchy. Although serving the client is of utmost importance, so is the way to maintain efficient control and good practices that guarantee work and service in each phase of the process and that these sums are shown to the client.

It is urgent to move to digital governance, but with the help of technological resources to make the workload corresponding to internal control efficient to achieve success in accountability and achieve the final objective for a quality project (M. Dini, N. Gligo and A. Patiño.2021); Otherwise, the requirement for transparency is quickly exposed to opacity by not having sufficient elements and professionals to carry out daily monitoring. The most frequent problems in the administration of the company or institution expressed by those surveyed are the lack of economic resolve to respond to the commitments made in 48.5%,

the high turnover of technical and operational personnel in 36.2%; greater commitment of technical staff to meet goals 33.1% and the supply of materials and equipment in a timely manner 26.9%.

The non-institutional or private professional maintains the essence of carrying out the construction and administrative processes in a mostly simple way, although there are also areas of opportunity for cost efficiency in materials and procedures, among others. In both cases, public or private works are parallel and implicit realities of each other when they are the client and contractor respectively and it is necessary to enter into an administrative simplification that enriches the construction work as a means to good results.

Precisely in relation to the survey, the most frequent problems that arise with clients or their representatives are the demand for scheduled physical progress in 54.6%, the observations being followed immediately and a response is given are manifested in 33.1% and compliance with commitments without excuses at 32.3%.

The quality of works and services of any magnitude and complexity requires guaranteeing each of the client's requirements, even those that by their very nature are included. Planning as a starting point against improvisation requires having an explicit base document that guides the professional's actions and even allows for pertinent improvements from time to time. In this sense, in any organization, taking care of the business or, in its case, institutional image is important and also offers opportunities for improvement, among which prestige and trust stand out in general terms.

In this area of business image care, the most frequent problems are non-compliance with quality standards with 64.6%, and poor communication management, that is, misunderstandings or confusions with

35.4%. It implies that the management part assumes it, supports it, promotes it and consequently applies it, generating synergy with economic or social goals. Forming a company or institutional image provides a solid foundation for better growth and development results, influencing the processes or activities, achieving comprehensive quality in the planned volume in close relation to the determined times to achieve the expected goals within a defined cost framework and contracted.

Quality involves, among other factors, moving between internal and external factors that can affect the project, hence its assurance must be documented in accordance with a compatible quality plan to develop the specific needs of the client in the agreed terms. Regarding external organizations, the respondents stated that obtaining the necessary permits and licenses to carry out construction projects can be a complicated and bureaucratic process, which is what 71.5% consider it to be the most frequent problem that must be addressed with related external organizations. with construction. Generally, these management times are not considered to affect the progress of the project.

The quality of the work being the characteristic required for its lasting materialization throughout its useful life. This constructive media goal is actually a means and guideline to achieve strategic goals from the investment project itself. A building is not sought as the final objective but rather to solve a problem or need previously identified, defined and described, serving a potential population or, failing that, serving a specific area to which it will focus.

On the other hand, quality is accompanied by adequate management of environmental care; In construction, sometimes due follow-up is not given. 64.6% of those surveyed comment that the generation and inadequate

management of construction waste is the most frequent problem, as well as the significant waste of natural resources such as water, energy and materials with 33.8%.

In general terms, quality in construction is accompanied by other concepts such as time and cost. Quality itself implies a high commitment from both the client and the person providing the service. The client must be clear about his requirements and, in turn, the supplier who has the material resources, human capital with experience, aptitudes, commitment and abilities. This is where we must guarantee that quality is not improvised or proclaimed, but rather there are actually established standards that are applicable on a daily basis in working life with appropriate and open channels to improve processes, including the rational use of communication technologies that facilitate tracking. A common client with little knowledge of building systems puts their trust and resources waiting and demanding that their needs be satisfied. As for the supplier, they must be a worthy guarantor of the trust placed by the client, with the latter being the center of attention.

CONCLUSIONS

The SMEs in construction have important challenges in an increasingly changing society. It is not about survival but about being competitive to provide business permanence. Constructive quality and respect for commitments to the client are an option of importance and require being promoted with the characteristics of innovation and moving through new technologies.

Internal control is vital for the supervision of work and for constant benefit so as not to give in to the best judgment, but to proven procedures. It is about the supplier or client making it their own and institutionalizing it with good practices that transcend,

admit and consolidate from the highest hierarchy, allowing changes and updates to be made. This may have an additional cost for the organization in design, training and implementation, but with benefits that are colloquially said, it pays for itself. The different stages of work until completion will be permeated with the certainty that the deliverable, product or service was carried out correctly with quality controls under the agreed specifications and requirements, leaving physical, written evidence and documentary support that reliably supports it.

Monitoring is in real time, otherwise the essence of making appropriate decisions in a timely manner for its implementation is lost (UNDP, 2009). The detection of deviations, failures or non-compliance are corrected and aligned. Having unrestricted internal controls is a priority; some of the frequent problems are generated if work papers are not required in their employment and dedication.

The adoption of internal and constant control is necessary to verify indices, measurements and performance of physical and financial progress. In practice, some controls are basically personal, that is, most do not have an interoperable system, otherwise parameters that the client requests could be added and the quality verified with the integration of information on materials and human resources. It is necessary to achieve measurable physical and financial

goals in close effective economic interaction to promote the acquired responsibilities, generating added value with a better corporate and institutional image and specific valuation whose results support the opening of new projects with excellent performance, capacity and rigor in the results offered to the client.

The survey and its results are a good exercise; it can be replicated occasionally to learn first-hand about the work environment in supervisory tasks, enriching experiences and expectations in a given time; it requires full openness.

In general, the actions of the company or institution require documenting the framework of action and training. Project administration and regulatory aspects, being requirements, require complementarity with related educational institutions, having some specialization and even certification, even more so when the public works are extremely extensive in the legal and administrative sense. The union part can enrich the task of supervision or the undertaking of a new collegiate body. It is also expected that this study will generate new lines of research in the construction and supervision field.

Opportunities for diligent supervision are visible for SMEs, government, educational institutions and associations can contribute much more with a lasting economic and social benefit and therefore for citizens by obtaining a better quality of life in their environment.

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