



PRIMARY RESEARCH

Exploring the challenges faced by project managers regarding project losses caused by poor workmanship on construction sites in South Africa

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Abstract

Among the many challenges confronting the South African building industry are a dearth of skills, rework caused by bad workmanship, and the impact and disruption of unions and local forums. This research aims to determine project managers' challenges in the South African construction business and how they cope with them. The qualitative inquiry will utilize conversations and notes to determine whether lousy craftsmanship results in project losses. According to the researcher, the conceptual foundation for this investigation is interpretivism. Employees are watched and questioned in the workplace. During data gathering, a methodical technique of collecting and evaluating data is used to answer study survey questions and analyze findings. Thematic Analysis, which finds and arranges patterns of meaning across datasets, can be used in research to investigate and comprehend communal meanings and experiences.

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INTRODUCTION

Managing projects daily is challenging enough without having to deal with poor workmanship and a lack of skills. They are also constrained by local forums and unions that serve their interests by restricting access to construction works. Several contractors rely on labour brokers to supply them with workers, but many of the workers they supply lack competence and have difficulty reading and writing. It is becoming common practice to remove competent artisans from construction sites and replace them with incompetent ones, causing high costs for clients and contractors (Khangale, Musonda, & Okoro, 2022; Sharma & Gupta, 2019).

The local forums and unions ordered contractors and the client to remove the Expats immediately from the site and to train the local community in welding skills instead. It was found that local forums were not identified as an external or internal enterprise environment factor during the stakeholder identification and analysis process. There was

no involvement of local forums or unions as stakeholders, so there was no identification, planning, or budgeting for the risk that the local forums and Unions would block entry to the power stations, remove expats, and demand training of locals to be welders. Mulaudzi and Lancaster (2021) stated that construction and small business owners are being crippled by extortion "Mafias" who threaten and bribe them and even kill politicians if they do not comply with their demands. Furthermore, the local forum could not provide individuals capable of reading and writing, let alone welding.

However, (Chong & Low, 2005) stated that "75% of the flaws owing to human factors were produced merely by "forgetfulness and carelessness," 29% by ignorance, and a very tiny number were purposeful. Lack of motivation dominated the expenses associated with workmanship faults, although the presence of hazards directly increased the likelihood of defects. In contrast, a review of Atkinson (1999) 27 construction projects revealed that "quality-related incidents" were

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caused by “lack of expertise,” “lack of knowledge” of the site worker, “carelessness,” “hard to build,” and “unclear project information”. Each of these factors reveals the subpar level of workmanship in construction.

Therefore, it is essential to pinpoint the cause of the issues before determining a solution. It gave the contractors additional knowledge about the poor quality of the workmanship on construction projects by identifying important issues. Therefore, the primary goal of this research is to identify the significant elements and measures that contractors have taken into account in construction projects and to demonstrate the relationship between those aspects and the measures that contribute to subpar performance.

Background of the Research

Construction workers are required for most plants worldwide, whether building steel works, power stations, paper mills, or precious metals factories. These plants require the skills of skilled artisans to erect and/or maintain them, as stated (Joonlaoun et al., 2017; Windapo, 2016).

Hundreds of artisans and supervisors make massive fabrication and repairs to boiler pressure parts, mills, burners, and high-pressure piping during new builds and shutdowns.

It is mostly labour brokers who supply these temporary workers. They are mainly involved in supplying bodies to construction sites and do not train the individuals they supply. In the view of labour brokers, people jump from broker to broker as well as from job to job, and they would never see a return on investment if they trained the bodies they provide to employers. We have three competitors that are also experienced in the maintenance of coal-fired boilers, and the concern is that whoever is awarded the contract then takes the best artisans in the field; either way, the broker is supplying labour to the market (Haq, Ramay, Rehman, & Jam, 2010; Jam, Khan, Zaidi, & Muzaffar, 2011).

Many specialized artisans (coded welders) have been imported from overseas as part of a specific project. In this case, Thai welders were brought into South Africa to weld X20 material at Kusile Power Station, a new build power station in South Africa. These welders are specialized to weld exotic materials. South Africa does not have many of these welders.

Statement of the Problem

In many cases, labour brokers provide artisans to sites that make the company incur high costs due to poor workmanship requiring rework. Budlender (2013) stated that contractors and clients also suffer immense losses due to the

strikes, damage to structures, and plant closures caused by the unions and local forums.

Aim of the Research

To determine the current challenges that Project managers face and are forced to accept and contend with on Projects in the Construction industry in South Africa.

Research Objectives

- a. To explore and highlight the factors and challenges project managers are facing in the construction industry with the help of an extensive literature review
- b. To identify the challenges faced by project managers caused by poor workmanship in the construction industry of South Africa Research question
- c. What difficulties do project managers face due to poor workmanship that results in project failures in the construction industry of South Africa?

LITERATURE REVIEW

Work Environment

Extreme climatic conditions have been linked to lower labour productivity and quality of work in the construction industry. Faisal, Banwet, and Shankar (2006) study revealed that Saudi Arabia’s summertime environment is hot and harsh, making it difficult to complete construction tasks like concreting. As a result, the level of craftsmanship suffers. In Mpumalanga, South Africa, Eskom Holdings, the state-run electricity public utility, is constructing the 4.8GW Kusile power station, which will be one of the world’s largest coal-fired plants upon completion. Six generating units with a combined capacity of 800MW will be integrated into the Kusile power plant. Wet flue gas desulphurization is used at Kusile for the first time in a South African power plant. Flue Gas Desulfurization (FGD) reduces sulfur oxides from fossil fuel-burning power plants. The boilers will produce 90% less sulfur oxide with its help. Following current international practice, the technology also reduces atmospheric emissions.

As part of Eskom’s contracting activities, engineering designs manufactures, and installs high-pressure piping and valves, kusile power station is the new power station being installed. Each contractor does its scope of work on the same boilers simultaneously; hence, planning is essential. A majority of the larger contractors only employ white-collar employees full-time. Labour brokers provide the workforce (blue-collar workers) for construction sites.

Project Losses

Eskom and construction sites have experienced the most losses because of poor planning, inadequate supervision, incorrect supplies, and substandard workmanship, which caused rework. On construction sites, project managers face a wide range of problems, including huge costs incurred because of rework caused by poor workmanship and negative impacts from unions and local forums, which strike and block access to power stations, preventing contractors from working on any projects. Various accidents occur on construction sites, and our exposure to the elements is significantly influenced by geographic and environmental conditions, leading to severe and minor physical losses and injuries to people. The suitability of the tools used can impact construction workmanship quality. Faisal et al. (2006) stated that a lack of the most current knowledge regarding the equipment that is readily available can affect the project's quality. According to a study by Kazaz and Birgonul (2005), Turkey's mass housing projects are of poor quality primarily due to the complete disregard for low-cost construction methods. Therefore, improper construction tools can result in subpar building workmanship. Consequently, analysis and prediction through scientific and empirical study should be carried out to prepare for potential accidents and losses in building sites, reduce risks, and establish strategies for transferring specific financial loss risks.

Various and comprehensive risk variables are recognized during the construction process to estimate the loss amount and loss range through this analysis and prediction, and quantified data that can be logically collected is necessary (Brockett, Golden, & Betak, 2019; Fung, Tam, Lo, & Lu, 2010; Mazhar, Jam, & Anwar, 2012).

Influence and Interference by Unions and Local Forums

According to Mulaudzi and Lancaster (2021), local forums are a reality and will continue to interrupt construction. Construction and small business are being crippled by an extortion mafia sweeping the country, and more recently, political ward councillors are being killed if demands aren't met. There has been a violent disruption and halting of construction projects worth a minimum of R25.5 billion. Engineers and highly skilled technical personnel have been forced to leave the country. Infrastructure projects are disrupted, and inflated costs result from delays and threats by these groups, which undermine service delivery and economic growth. Many legitimate small businesses are denied subcontracting opportunities by extortionists, denying them the opportunity to create jobs in their communities. In

agreement with this statement, the researcher also points out how this is destroying the economy in South Africa.

Rework Due to Poor Workmanship

It was stressed Love and Edwards (2004) that direct costs can be easily calculated, are often used to evaluate workmanship quality, and constitute a significant portion of the total project expenses. The direct rework costs are calculated as the sum of the person-hours, schedule, equipment, materials, and space costs.

Rework in building and engineering projects has been the subject of numerous studies that have attempted to quantify these costs (Love & Li, 2000).

The direct costs (of rework) can amount to as much as 25% of the contract value (Barber, Graves, Hall, Sheath, & Tomkins, 2000). Defining rework as "the unnecessary waste of time and effort in redoing an activity or process that was incorrectly carried out the first time. Love and Edwards (2004) defines rework as the process of recompiling information. A negative client experience or end-user experience was indirectly associated with rework on the project. Indirect effects of rework include reduced profit, diminished professional identity, conflict within an organization, and loss of future work. Many indirect effects of rework were identified at the individual level, including stress, fatigue, absenteeism, demotivation, and low morale. The researcher adds that many individuals fear for their lives due to intimidation and cannot place their focus on their work, thus also producing poor quality work.

Those who adopt better work practices can achieve greater productivity than those who work faster and harder. As the most crucial issue affecting industry stakeholders, insufficiently skilled workers is the biggest concern (Hewage, Gannoruwa, & Ruwanpura, 2011).

The case study disclosed evidence that further explained that the client required a weld repair rate as part of the new contract negotiations to monitor the new welders' repair rate. For small bore piping, the agreed was at a 5% weld repair rate. For big bore welding, the weld repair rate was agreed on at 2%, and the weld repair rate for big bore sprung from 1.2% to 11.6%.

This was due to the expat welders being told to leave, thus causing negativity among the welders. The new welders that were trained caused havoc, pushing the weld repair rate up to unaccepted heights and causing much rework. Whenever there is a weld repair, the butt weld must be cut off by a pipe fitter, and then the pipe must be prepped, aligned, pre-heated, and welded again; the loss in costs and time was enormous. The weld repair rate shot through the

roof after unskilled and inexperienced welders began welding on site.

The weld defects were analyzed. The defect trend analysis below indicates precisely the defect in the weld.

- Porosity
- Wormholes
- Poor Stop/Start
- Gas Pores
- Excessive penetration
- Elongated cavity

Each new welder was monitored on the x-ray results of the welds they produced, as seen in the table below the Weld Repair Rate (WRR); some welders had a 100% weld repair rate. Meaning that every weld that they had produced had failed, thus escalating losses in cost, time, and production. Re-training had to be done, and welder re-testing had to be done; as this continued, the costs escalated to get the locals trained up as required by the local forums.

Manpower Suppliers – Brokers

According to the author, a skilled workforce and leaders have always been assumed as a given in the South African construction industry. Due to the lack of this development, post-1994, the industry looked to labour brokers to find skilled workers and leaders, and the labour brokers sent bodies (unskilled workers) to the site and cashed in. Neither the government nor the unions can clearly explain why trade apprenticeships were stopped; however, they direct the cause to racialism back in the '80s. [Lundell and Kimmie \(1992\)](#) also stated that education and training must move from “traditional” approaches, benefitting a few, to “transformational” approaches empowering most working people. Apprenticeships in trade were among the most critical factors contributing to economic growth.

Since temporary workers jump from job to job and broker to broker, the labour brokers will not train them as they cannot recoup their investment.

The fact that you are capable does not mean that you are competent. There is a significant shortage of competencies in the industry, which affects the economy, which, in turn, affects the whole business world. The declaration of competence does not mean you can effectively carry out the task.

Skills Shortages – Competencies/Capabilities

Skilled workers are in short supply in South Africa at the moment. As a result, South Africa's economic prospects are negatively affected, as well as its global participation. A severe shortage of skills in South Africa is adversely affecting socio-economic development.

There is considerable attention being given to the issue of skills shortages by the South African government. Even so, South Africa still faces a severe shortage of skilled workers. As a result, new legislation like the mining charter for women and legislation relating to employment equity have proliferated. By addressing historical inequalities, creating employment opportunities, and improving national competitiveness, the legislation aims to alleviate poverty and improve the skills and employability of all citizens ([Rasool & Botha, 2011](#)).

There is a shortage of qualified tradesmen, such as electricians, boilermakers, welders, fitters, and riggers, with more technical and formal training and certification requirements. There is no shortage of manpower but a lack of qualified or skilled labour ([Windapo, 2016](#)).

Skills shortages are attributed to a lack of quality education, economic conditions, mandatory certification of tradesmen, and ageing populations. In addition, skilled labour shortages are closely related to certification requirements, and uncertified workers produce unsatisfactory work output.

It is still difficult to fill skilled positions in the country despite several educational reforms, including changes to school curricula. Employer bodies, trade unions, and government organizations regularly criticize media coverage of this ([Rasool & Botha, 2011](#)).

[Gamble \(2016\)](#) South African research has indicated that work requirements and apprentice and learner skills are significantly mismatched. Most limitations to formal curricula and trade tests contribute to this phenomenon. The current qualification system emphasizes lower and intermediate skill levels rather than intermediate and higher levels of skill. The normal three-year apprenticeship with a minimum requirement of an N3, to begin with, has been dropped down to an apprenticeship being done in one year, where reading and writing are not even a pre-requisite by the dodgy training suppliers

Challenges

According to [Cromberge \(2005\)](#) from Engineering News, “Skills programs could also be used to solve the current shortages.”. Using them could enhance the skills of experienced workers who possess some artisan skills, thus making them fully qualified artisans.

President Thabo Mbeki mentioned the need to increase funding for colleges of further education in October 2019 when he mentioned the need to accelerate skill building. Without accelerated training for artisans, production and job creation will be adversely affected unless artisans are trained at a faster rate. Consequently, our economy will

grow at an inadequate rate, and our government will be unable to provide essential welfare services to our citizens, urged Higher Education and Training Minister Dr Blade Nzimande.

From 2004 to 1989, the Minister of Police and the Minister of Defence determined which sites were of national strategic importance to protect them from sabotage, according to the National Key Points Act, 1980. The author supports what the Minister stated, the reason being that as part of supporting the power utility and their contractors, the government must participate in negotiations with local forums and unions before and during projects; however, in reality, there is no support from the government to protect these national key points.

There is Still Much to Discover

It may not be possible to award future contracts because both parties (Contractors and clients) would have to negotiate with irrational local forums and Unions, which could lead to each party losing financially.

Contractors and clients face the following unknowns:

- Possible delays in future projects
- Identifying and addressing projected risks
- Contract negotiations with the client, local forums, unions, and government officials during the pre-construction period

Despite knowing that the workers being supplied by labour brokers are incompetent, inexperienced, and incapable, and they cause rework and disruptions to work on construction sites, the contractor cannot budget for risks if the client won't allow him to do so. How will the project be awarded if this is the case? What is the best way to ensure reduced rework and disruptions? Must one take risks and not budget for the foreseeable?

Poor artistry causes a great deal of rework on construction sites throughout the world. The researcher supports this statement as the company is currently experiencing the same rework and suffering high costs due to the rework caused by poor artistry on the construction sites in South Africa. An analysis of the qualitative data will reveal whether rework has been done on the construction site and whether poor workmanship is present.

We further elaborates that due to the lack of skills and experience of qualified artisans currently being supplied to sites by labour brokers, the author is convinced that the quality of training provided by various sub-standard training providers is negatively affecting the construction industry. Various training providers in South Africa have been investigated by the author and the company's training of-

ficer to determine the quality and value of the training service providers; the results are staggering, as many are not accredited. Thus the training provided to an individual that paid their hard-earned money to obtain a qualification means nothing to the companies looking for "Competent" artisans. Again, the researcher may not disclose the names of the training service providers and the investigation results.

For those that have gone to proper training service providers, the artisans have been through a proper apprenticeship and have been trained in practical and theoretical skills, including reading drawings and working out formulas; employers do not undergo much rework when hiring artisans from accredited training suppliers.

All new workers at the company must be screened before they work on construction sites by the screening department; however, this screening centre has failed because of the incorrect management and support of previous management; the new management has now inherited this department and its failures.

The following persons should complete pre-employment screening for mining company sites.

- Staff employees
- Temporary employees – Limited duration contract
- Labour broker employees

The screening centre scrutinizes each employee to ensure the following is adhered to:

- Valid annual medical
- Verified competencies, skills, experience & Literacy
- Verified CV's
- Practical and theoretical screening test – Must pass with 85
- No criminal record

The author believes there is a concern at the screening centre and that the employees involved in assessing all employees do not have the appropriate knowledge, skills, and experience to do so. Corruption, bribes, favouritism, and fear among the screening team are possibilities. Assessors enter all the candidate information and assessors' assessment results into an electronic system called Rapid. If candidates, family, or friends bribe someone, they can easily alter any information. The portal into the "Screening centre" is questionable. The reason is that employees that have been screened end up on the construction sites and are causing much rework due to poor workmanship.

METHODOLOGY

Qualitative research primarily consists of visual, aural, or textual data.

Qualitative data - It is preferable to use phenomenological approaches, case studies, or generic qualitative explorations as qualitative methods. An inductive approach is used in this study. Construction managers and supervisors manage construction sites. Safety & quality officers form part of the site management team, and artisans are the physical workers in the plant. The data collected by these individuals will enable the author to comprehend what has been investigated.

Thematic Analysis – This method identifies, organizes, and provides insight into patterns of meaning across a dataset, allowing researchers to see and understand collective meanings and experiences. As a result of thematic analysis, the researcher can identify what needs to be addressed concerning a particular topic and research question.

Exploratory - In exploratory research, researchers try to find solutions to problems with unclear answers. As this study is designed to understand better the current problem experienced on construction sites in South Africa, it will not provide any conclusive results. Such research involves identifying issues to be explored more deeply in the future using a general idea as a starting point.

Sampling Technique

The researchers select participants who represent a wide range of perspectives based on the specific perspectives they wish to evaluate. The purpose of purposive sampling may be used if a researcher wishes to include participants representing a variety of perspectives, but it may also be used if they have particular criteria for inclusion. Therefore, the researcher chose particular employees and management to participate in the study.

Data Collection Method

It was chosen by the author to conduct on-site observations and interviews during plant walk-downs with the senior management and the site management team. Researchers can acquire extensive information from interviewees through a semi-structured interview compared to other kinds of interviews because they can consider the study's focus while collecting their information. Additionally, a structured interview offers researchers greater flexibility and adaptability than an unstructured interview, in which its direction is not fully considered (Ruslin, Mashuri, Rasak, Alhabsyi, & Syam, 2022).

Population

To identify information-rich cases, it is essential to have access to key informants in the field (Noy, 2008). This study focused on employees on construction sites at South African

power stations who are contributing to the research, specifically operational managers and site management teams.

Sample Size

Senior managers = 2 x Operational managers

Site management = 2 x Project managers, 2 x Construction manager, 2 x Site Supervision

Site management team = 2 x Safety officers and 2 x Quality officers

Researchers follow various guidelines to determine whether their research sample is appropriate, so size determination must be considered (Mocănașu et al., 2020).

Data Collection and Analysis

A Construction Project Manager (CPM) ensures the timely completion of a project within defined budgetary and quality expectations while ensuring the successful execution of all project objectives. Unsatisfactory project delivery is becoming more prevalent in South Africa (Booyens & Folose, 2018). The research was conducted to determine the current challenges facing Project managers in the Construction industry in South Africa, using data that the researcher had collected. The data collection results are summarized and analyzed to determine how participants interpreted the questions presented in the interviews.

Overview and Description of Data Collected

Site management teams and senior management verbally responded during a walkabout at the site. A total of 12 individuals were part of the senior and site management teams; the author consulted individuals from different sites to determine whether the problem also occurred in other provinces where sites were established. The interview questions are designed to assist senior management and site management team members in understanding the questions regarding the title.

Summary Description of Responses

According to a grounded theory, data were analyzed using qualitative analysis, a list of questions was created for the interview, and all respondents' responses were analyzed according to these questions. Using the participants' responses, an analysis was performed to determine if the "Aim" and the study's objectives had been achieved.

RESULTS AND DISCUSSION

Thematic Analysis: In this method, researchers identify, organize, and provide insight into patterns of meaning across datasets, so collective meanings and experiences can be seen and understood (Braun & Clarke, 2012).

Theme 1: Project Managers' Challenges on South African Construction Sites

Project program – A project manager stated, “It is challenging to run a project with many negatives affecting the program”. Site management team respondents also indicated that rework disrupts the project program and delays completion. There are more negative effects than positives associated with rework in construction projects. In addition to delays in the construction schedule, wasted resources, and extra spending, the contractor will have a lower profit margin, resulting in a higher project cost (Abeku, Ogunbode, Salihu, Maxwell, & Kure, 2016).

Similarly, the supervisor mentioned that the shortage of time also brings serious problems; employees are working under pressure which causes severe injuries, and ultimately we face delays. The loss of production and time negatively affects other employees who are now forced to catch up on lost time. As production increases, injuries become more likely to occur due to greater exposure to physical demands and other hazards, and workers with lower levels of education appear particularly vulnerable. Whenever work is rushed to be completed, the quality of the work is questionable.

Additional costs – The senior manager mentioned that if poor quality work is done, we need to see the quality, and if it doesn't satisfy, we need to rework, which adds a cost that we refer to as quality cost, which means to meet the costs we pay due to non-compliance of product/service quality. Likewise, said discussed by the supervisor, “Yes, especially if we have unskilled workers, we need to train that person; he makes mistakes and compromises the quality, which also adds additional cost to the overall production. Sometimes this cost is overlooked and causes project loss”.

Nonetheless, rework being the cause of unnecessary costs, the case study indicated that the company had to train the local individuals to be welders, which was not budgeted for in the Kusile project. The repair of their welds was not only expensive but also time-consuming. In addition to weld repairs, pipe fitting costs were involved in cutting, preparing, installing, and aligning pipe. An experienced welder had to be removed from another job, thus halting that job temporarily; the butt weld had to be welded, X-rays of the butt welds had to be taken, and a report provided.

Local forums/unions: The senior manager explained, “Local forum individuals that work on-site, and the local forum members outside the site, intimidate and threaten site employees and management”. One of the supervisors said that Several employees and managers were threatened with violence for not supporting the local forum's needs and re-

quirements during a visit to their homes. Bullying has led to some employees being admitted to hospitals, which is considered harassment when it comes to workplace bullying; in the workplace, harassment of employees is prohibited on any one or a combination of grounds for unfair discrimination.

Theme 2: Poor Workmanship

A quality officer stated, “With all this poor workmanship, safety is also non-existent because they do not know how to perform the work, let alone understand the basic safety principles that are part of the work”. The site manager stated that they experience challenges due to poor workmanship on the construction sites; they also agree that individuals supplied by Labor brokers are not skilled and knowledgeable about the task at hand. Employing fewer or no skilled workers became a popular method of boosting business profits through labour broking. A minority were reluctant to provide honest answers because they feared the local forums and couldn't trust the anonymity of this information. The supervisor mentioned the challenges we experienced due to poor workmanship, and the individuals supplied by local forums are not skilled and knowledgeable, thus negatively affecting the program. Evidence illustrates that rework due to poor workmanship is a major contributor to site losses, something project managers face daily on construction sites in South Africa.

Theme 3: Shortage of Skills

A site manager said, “The older hands must now do more to carry the burden by doing the so-called 3 months “Qualified” artisan's work”.

Another manager emphasized a shortage of skilled workers in the construction industry. The skilled worker shortage in South Africa is severe at the moment. Global participation in South Africa and South Africa's economic prospects have been negatively affected. Skills shortages seriously impact South Africa's socioeconomic development (Rasool & Botha, 2011). The senior manager explained that contractors are forced to train local individuals rather than work with qualified artisans on-site. Likewise, as said by the supervisor, “contractors are forced to train local individuals rather than work with qualified artisans on-site”.

The quality manager said, “there is a skills shortage, particularly among qualified artisans. The employees supplied by local forums and labour brokers are incompetent”. The senior manager also emphasized that “the root cause is a lack of education and poor parenting, which is why most employees of local forums and labour brokers fit into the

category of those who struggle to read and write”. Moreover, confirmed by the site manager stated that “There are many qualified artisans available. However, they do not live locally to the power station, and many of those qualified artisans do not qualify “Politically” to work at the power station”.

One of the managers mentioned that “Black economic empowerment forces all contractors and the client to utilize the locals, the majority according to the BEE quota. South Africa’s Black Economic Empowerment (BEE) program is a policy initiative to empower black people and redistribute wealth across the nation’s demographics”. To rectify the economic imbalances caused by apartheid and promote economic transformation, the Broad-Based Black Economic Empowerment Act was enacted.

Theme 4: Competencies

There was no variation in responses from the interviewees. There is no competence in the people provided by the local forums. The site supervision team expressed that “It is very difficult to push production with people that are not competent and do not understand how to do the work, ultimately changing us into a training school to educate the locals on how to do the job properly” A concern remains about the employees’ competencies, experience, and knowledge of the power plant. Compelling competencies are usually identified as the employee’s abilities that enable them to achieve excellent results at work (Szydło et al., 2021).

The senior manager also mentioned that “Construction sites have been a source of employment for many of these workers over the years, but they haven’t obtained any qualifications. Many were utilized on sites because of their connections, while others had little experience but no qualifications. Many individuals are placed in certain positions due to political mandates, but none have been trained to hold those positions”.

They likewise mentioned the safety manager: “An experienced and qualified artisan finds it challenging to work under a supervisor who lacks qualifications and does not have basic management or technical skills”.

Theme 5: Employees Supplied by Labor Brokers and Local Forums

The construction manager quoted that, “I think serious effort must be put into investigating these Labor Brokers and local forums providing artisans, focusing on the quality of employees and checking their qualifications from an external body for verification as to qualifications”. Also stated senior manager that “Employees that are qualified and want

to work hard to ensure future work opportunities are not in support of the local forums and unions. However, they are intimidated and threatened. With this in their minds, their focus is not on their work, thus affecting their behaviour to produce the required daily quota”.

A similar answer was received from the quality manager, who mentioned, “The employees that are part of the local forums and unions display a threatening behaviour towards colleagues and management, thus creating a tense atmosphere in the workplace”.

The manager discussed this view in this context “The client, the contractors, and their employees are all affected due to strikes/unrest. Even though violent strikes are visible in every corner of the country, there are no mechanisms in place to curb them”. It is devastating to the economy when there is violence and prolonged non-production, causing injury to members of the community and non-striking workers, and worst of all, poverty, since employers would terminate workers if their businesses were not profiting from prolonged non-production. Additionally, the quality manager said that “plant operators and deliveries to and from the site are halted as access to the gates is blocked. During construction work, the no work, no pay applies to all, thus also affecting all employee’s income”.

It was noted that a minority of interviewees were reluctant to answer honestly because they believed that the information wouldn’t remain anonymous, and they feared for their lives and were unsure if they would be re-employed. During the strikes and unrest, all contractors and clients are affected as the local forums block all access to the power station. Hardworking employees who refrain from participating in strikes are intimidated and beaten if they do not want to participate. Those employees exhibiting poor behaviour are currently working on the construction site but are also members of the local forums, so they are the insider informants for outside groups. Despite their arrogant attitude toward supervisors, management, and other employees, they force fellow employees to comply with the demands of the local unions and/or forums. Power stations are national critical points that the South African Defence force must protect, so this barrier needs to be overcome. The presidency must authorize the dispatch of the Defence force, but they cannot deal with local forums and unions, as they will lose votes and supporters if they do so. The country is losing billions due to a corrupt and crooked system.

Further Research

According to the researcher, many companies worldwide, particularly those in the construction industry, face similar

challenges by utilizing local labour. As a rule, most employees would be unskilled and would require training. It is not uncommon for locals not to have been educated and struggle with reading, writing, and constructing “slang.” Aside from the excessive costs and delays caused by poor workmanship, all employees on the construction site are also at high risk of injury. As humans, we understand the need for everyone to be employed, as everyone’s right to work for a living. However, those not willing to be schooled and educated will try to force their way into local employment. Self-entitlement is the foundation of many issues in many countries.

CONCLUSION AND RECOMMENDATIONS

Conclusion

Project managers and site management teams are burdened with loads that are not theirs to carry, yet they are forced to contend with the issues as the project must go on. Most of these issues are related to the following:

- Rework due to poor workmanship
- Negative influence and behaviour from the local forums and unions,
- Lawlessness
- Weak government
- Excessive corruption
- Lack of education of the youth.

The reason why the labor brokers are supplying incompetent labor is that the local forums force them to make use of local individuals. The client, contractors, and labour brokers are provided with job specifications of the individual required to perform a specific task; for example, a pipe fitter must be medically fit to work, competent, and qualified as per South African qualifications authority, must have knowledge and skill of the boiler environment, and must be of slender build to fit inside the boiler. The neighbourhood forum is unconcerned with specifications or regulatory requirements; they want their members to be worked.

Employees are checked before being allowed to work at the company’s screening centre. However, this method is overruled because the business is compelled to hire people from local forums. Screening is done on the locals, but the individuals are not compliant; however, to cooperate with the local forums, an organization is allowing the individual on the condition that they will learn what they are taught; however, this is, unfortunately, a more significant challenge, as many of the locals cannot read or write, making it extremely difficult for the individual to succeed in this venture to help the community locals grow. Project managers will continue to try to cut expenses and stick to the project schedule as

much as feasible.

The research aimed to determine the current challenges that Project managers face and are forced to accept and contend with on Projects in the Construction industry in South Africa. The researcher has identified the challenges that Project managers are faced. Unfortunately, they will continue to be forced to contend with these challenges, as the South African government does not even address, let alone challenge, the local forums enforcing their “Construction Mafia” tactics and doing as they please.

The author’s research objectives were as follows:

- To explore and highlight the challenges project managers are facing in the construction industry with the help of an extensive literature review
- To identify the challenges faced by project managers caused by poor workmanship in the construction industry of South Africa

The literature review has been conducted to examine the challenges faced by construction project managers. By identifying the challenges caused by poor workmanship, the author has identified the challenges faced by project managers.

Project program:

Furthermore, the contractor will have a smaller profit margin, resulting in a higher project cost, delays in the construction schedule, wasted resources, and extra spending (Abeku et al., 2016).

Poor workmanship:

With the advent of labour brokerage, businesses began using fewer or no skilled workers to boost profits.

Skills shortages:

The socio-economic development of South Africa is severely hampered by skills shortages (Rasool & Botha, 2011).

Competencies:

Competencies are an employee’s ability to contribute successfully to the organization (Szydło et al., 2021).

Strikes/unrest by local forums/Unions:

A prolonged period of violence and non-production damages the economy, causing injuries to non-striking workers and community members, and worst of all, poverty, since employers may terminate workers if they are not profiting from prolonged non-production.

Theoretical Contribution

The theory comes directly from those that experience the issues on the construction sites daily; the author is also af-

affected due to the strikes and unrest, thus preventing our companies from entering the power stations. The interviewees have many years of experience and state, “It’s never been this bad before; where and how will this ever end” Theories have the potential to explain a phenomenon. This puts theoretical work squarely ahead of mere descriptive or survey work, which states phenomena as they are (Crane, Henriques, Husted, & Matten, 2016).

Limitations of the Study

Considering the sudden loss of huge contracts the company has had for many years, the company is running a tight ship, as funds are few and the future is unknown. Recent retrenchments of many employees have caused the remaining employees to be on the back foot, as many are living in doubt and fear, wondering when the next group of retrenchments will begin. The last message from the top management in April 2022 stated, “We should be okay for a year, but we cannot promise you anything” this is not good news for anyone with debt to pay and a family to take care of at home. Considering this, the researcher experienced that many were reluctant to share information, did not believe that their information would remain anonymous and refused to participate as they feared their jobs’ future.

Lessons from the Study

The authors were not aware of the fear that many individuals experience on sites daily. As we discovered after conducting this study, some interviewees responded unexpectedly. Many go to work in fear, work in a dangerous environment, and go home to sleep in a dangerous environment. Many individuals that grow up in the local community are fatherless due to some construction life; they would work in an area until construction is complete and then would move to the next construction project elsewhere. However, during the period whilst on a construction site, many (which are married), their homes are too far to travel just for a

weekend, would instead enjoy their weekends off locally and impregnate some young ladies, then disappear to the next job, thus leaving a woman to bring up the child alone, not having a father for the child, or any financial support. This reality is frightening, as the child grows up not knowing a father figure, thus not knowing discipline, not being educated, and many suffer from malnutrition. This explains the lawlessness, the abusive and negligent behaviour, and the strong desire for employment; thus, they rely on the local forums and unions to help them to obtain employment. The minority wants to study and make a life for themselves, whilst the majority live from hand to mouth. Many of these individuals turn to narcotics to temporarily forget their current struggles and the environment they are exposed to.

Recommendations

The author determined that it is necessary to restructure the company’s screening centre. To allow employees to go to sites, they must be assessed by competent, skilled, and experienced assessors. The employees supplied to sites must conform to the job profile requirements and have the necessary qualifications, knowledge, and skills to perform the task. The government, the client, and all contractors, together with the unions and local forums, must find and agree on a way forward to train the local individuals and agree that the local forums and unions would not disrupt the construction project program.

Future Directions

Future directions for researchers in this area of study should start with the schooling curriculum and whether schooling is compulsory or not. Determine whether aptitude tests are done on scholars to give them clear guidance on their future study choices. In the poorer communities, one would have to consider pressuring the government to ensure that all children are schooled, clothed, fed, and well-equipped before entering the world as an adult.

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