



Creative Construction Conference 2017, CCC 2017, 19-22 June 2017, Primosten, Croatia

An Assessment Of The Critical Success factor For The Reduction Of Cost Of Poor Quality In Construction Projects In Swaziland.

Nokulunga Mashwama^a, Clinton Aigbavboa^b & Didi Thwala^{c*}

University of Johannesburg

"Department of Construction Management & Quantity Surveying, Faculty of Engineering & the Built Environment, University of Johannesburg, South Africa"^{a,b & c}

Abstract

Cost of poor quality (COPQ) in the construction industry is a serious problem that the industry is faced with, due to failure in preventing wastage and defects during construction work. The cost of poor quality remains hidden and eats up to 40% revenues of the construction enterprise. Hence, the study investigated the critical success factors that reduce poor quality in construction projects according to the perception of construction professionals in the Swaziland construction industry. This research adopted quantitative research and 50 useable questionnaires were used as an instrument tool for the study. Random sampling method was used to select the respondents in various construction companies. Cost of poor quality impact the construction industry of Swaziland's and construction companies have to reserve funds for such occurrences, since poor quality cannot be tolerated and contractor have to rectify at own cost. Another challenge would be under-pricing the construction project and rectifying construction mistake it becomes a big problem for the contractor. Findings revealed that are a lot of success factors that can be used, it's just a matter of the implementation of the success factors in the project. The role of the managers in construction projects is still under looked and therefore, this can be a problem if it is not attained to. The study revealed that are a lot of success factors such as the use of quality management system and the critical success factors can actually help eliminate poor quality in most construction projects of Swaziland. The implementation of quality management systems at the beginning of the project and encouraging team work in the project could assist construction projects.

© 2017 The Authors. Published by Elsevier Ltd. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

Peer-review under responsibility of the scientific committee of the Creative Construction Conference 2017

* Corresponding author. Tel. +27 73167 9464.
E-mail address: nokulungam@uj.ac.za

Keywords: Construction projects; Critical success factors; & Quality.

1. Introduction

According to [19], it is important to identify the cost of poor quality so that one can determine the expenses associated with producing quality products. Cost of Poor Quality (COPQ) in the construction industry is a serious problem that the industry is faced with; due to failure in preventing defects and wastages during construction work [19]. The cost of poor quality remains hidden and usually appears within the latent and patent defect period, the contractor is obliged to fix and eats up to 40% revenues of the enterprise including construction companies; which then can run a company which was once or trying to be successful to failure [14]. The cost of poor quality on construction projects impacts the economy of any nation with the reinvestment of funds to rework the poor quality projects [13]. Also, in case of government sponsored projects, the government has to invest in the same project again, thus leading to a waste of tax payer's money [6, 7&13]. Success or failure of construction work significantly affects the construction industry, which contributes significantly to socio-economic development and employment in any country [11, 13&15].

There are many success factors such as providing effective leadership, team development and deploying skilled workforce, cash flow, defining quality objectives, just to name a few and if addressed effectively that can reduce the COPQ from the construction projects [14]. Losses can be reduced by handling the Success Factors effectively. In the realm of project management, the schedule, cost and quality achievement is also referred to as the iron triangle [11&12]. Out of these three aspects, it is the achievement of schedule and cost compliances that the project management is attending to most of the time. This normally causes the achievement of quality to slack down at construction sites, in order to achieve the schedule and cost objectives.

[11&12] Stated that the project quality is sometimes overlooked at and this can be seen as one of the many causes of poor quality in construction projects. According to [17] the Cost of poor quality (COPQ) is the cost faced due to the production of poor quality products and services. The lack of quality in construction projects is caused by poor or non-sustainable workmanship, unsafe structures, delays, cost overruns and disputes in construction. Value and quality of construction is of concern to both public and private sector clients [17]. This study is focused on identifying the critical success factors for the reduction of Cost of Poor Quality (COPQ) from construction projects. A survey was conducted on companies of various categories, both working on private and public sector projects.

2. Construction industry

The construction industry is an important key player in the economy of every country [13,15&19]. Despite a number of challenges facing the interest-rate sensitive sectors within the building and construction environment. Although, it is deemed that the industry is improving, the construction industry still faces challenges such as rise of construction cost to 7% [4]. Therefore, the construction industry needs to grow above 7% to show some improvement, due to constant cost increases, the industry faces an uphill battles for growth and the cost of poor quality amongst other factors [6&7]. Swaziland has not escaped the problem of lack of quality focus in the construction industry [15]. The Swaziland construction industry is under pressure due to a combination of factors such as skills shortage, delays in payment, increased fee completion and variable quality [15].

3. Quality in construction industry

Errors in construction sites occur frequently and can be costly for the contractors and owners of constructed facilities. In fact, 6-15% of construction cost is found to be wastage due to rework of defective components detected during maintenance [19]. The nature of these errors is quite diverse 20-40% of all site defects have their roots in errors arising during the construction phase, 54% of the construction defects can be attributed to human factors like unskilled workers or insufficient supervision of construction works [15]. Furthermore, 12% of the construction defects are based on material and system failures [19]. These observations suggest that a thorough inspection of construction sites is needed and that current site inspection approaches need to be improved in identifying defects on construction sites effectively. Since the main causes of construction errors, e.g. human involvement in the construction process and

متن کامل مقاله

دریافت فوری ←

ISIArticles

مرجع مقالات تخصصی ایران

- ✓ امکان دانلود نسخه تمام متن مقالات انگلیسی
- ✓ امکان دانلود نسخه ترجمه شده مقالات
- ✓ پذیرش سفارش ترجمه تخصصی
- ✓ امکان جستجو در آرشیو جامعی از صدها موضوع و هزاران مقاله
- ✓ امکان دانلود رایگان ۲ صفحه اول هر مقاله
- ✓ امکان پرداخت اینترنتی با کلیه کارت های عضو شتاب
- ✓ دانلود فوری مقاله پس از پرداخت آنلاین
- ✓ پشتیبانی کامل خرید با بهره مندی از سیستم هوشمند رهگیری سفارشات