



QUALITY CULTURE DEVELOPMENT FOR IMPROVING COMPETITIVENESS IN POWER PLANT CONSTRUCTION SERVICES COMPANY

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Author's Biography



Satya Nugraha obtained his bachelor's degree at Institut Teknologi Bandung, Major Geodetic & Geomatics Engineering. At this moment, He is a post graduate student of project management at Universitas Indonesia. Since 2008, He has a lot of experiences for implementation in Coal Mining Business operation and Power Plant Construction.



Yusuf Latief was born in Jakarta, March 7th, 1960. He obtained his bachelor, master and doctoral of Civil Engineering degree from Universitas Indonesia. Now, as a Professor and also a fulltime senior lecturer in Universitas Indonesia, He has a lot of national and international journals especially for knowledge management in Project & Construction.

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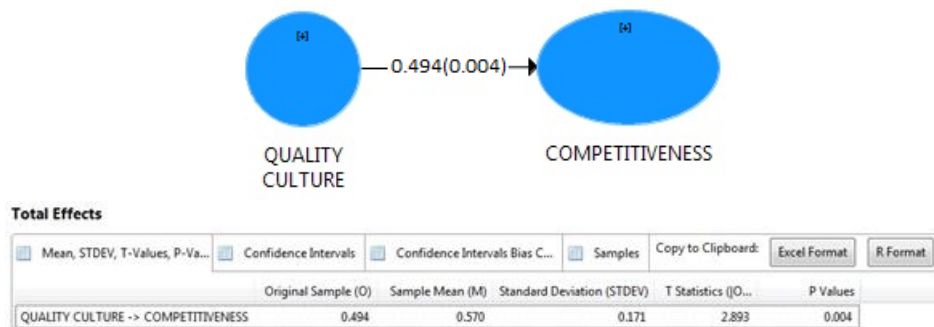




Research Highlights

The tight competition in the construction sector in Indonesia's infrastructure projects presents a challenge to construction service companies, especially in the power plant infrastructure industry. To improve the competitiveness of construction service companies, customer satisfaction guarantees must be created, as follows: 1) Products must be in accordance with the requirements, 2) the project done is completed on time, 3) the costs incurred are relatively cheap and 4) collateral for Health, Safety and Environment (HSE) should be realized. In creating customer satisfaction, the concept of Quality Culture needs to be applied. By using the Deming Cycle method in building a quality culture, it is expected that could increase competitiveness. This study aims to determine the effect of developing a quality culture on power plant construction service companies. The results of this study are the concept of building a PDCA-based quality culture in the Quality Management System in a power plant construction services. After expert validation of conceptual framework developing quality culture, The research did the measurement of Quality Culture and Competitiveness in Power Plant Construction Services Companies. The study proposed hypothesis and results indicated there is a positive relationship between Quality Culture and Improving Competitiveness. While developing all variables of Quality Culture also improving competitiveness index.

Graphical Abstract



Path Coefficients had been resulted as a quality culture & competitiveness measurement from 35 respondents in Power Plant Construction Service Company.

Research Objectives

Quality has a three-fold meaning (Hart 1994) . In the context of construction, it means getting the job done on time; ensuring that the basic characteristics of the final project fall within the required specifications; getting the job done within budget. In the twentieth century, Quality is an approved management concept and it is driving organizational competitiveness and effectiveness (Wan Yusoff bin Wan Mahmood 2008). Quality Culture includes the coordination of shared principles and standards that is concern on delighting customers and constantly enhancing the quality of products and services (Malhi,2013).

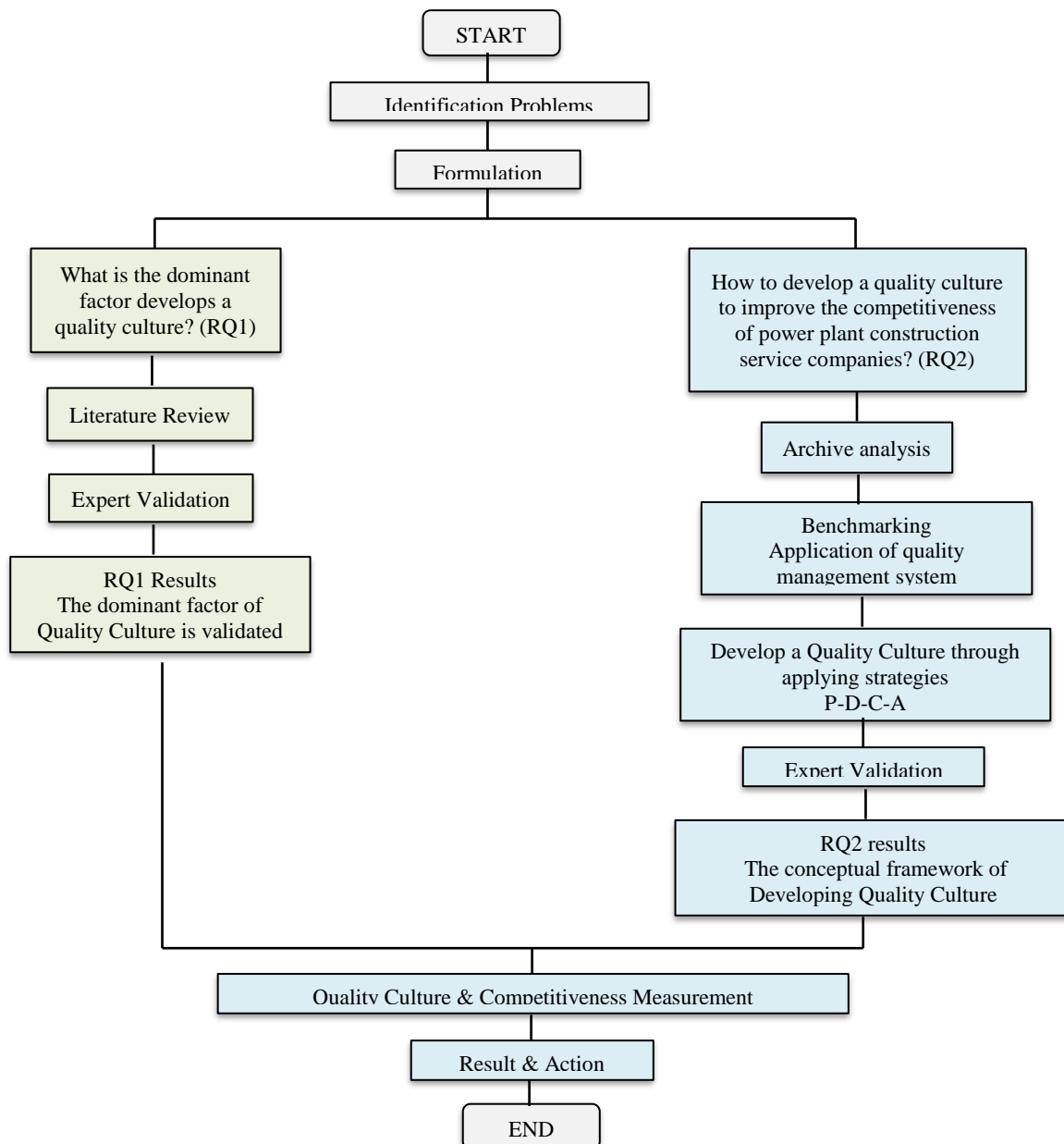
The relationship between culture and economic growth is by no means a new subject (Gershman 2016). There is a strong relationship between quality, strategy and competitiveness (Prajogo 2007). Culture comprises of the convictions, standards and fundamental assumptions that support behavioral items and patterns (Ott 1989) (Zeitz 1997). Business strategy and communication relations are the dominant approaches carried out to improve competitiveness (Sauka 2014). By using the Dynamic System it is known that the



Time and Finance variables can be used as the dominant factor to determine the Competitiveness Index in the Construction sector (Dangerfield 2010).

Methodology

This research performs study case at Power Plant Construction Service Company. The study is benchmarking to existing literature related to quality culture. Data obtained through literature analysis, and validated by experts. Questionnaire is validated by Structural Equation Models and strategy is benchmarking to Power Plant Construction Company. Modelling strategy to improve quality culture will be provided as the result.



Results

The concept used on developing a quality culture is carrying the concept of William Edwards Deming (1900-1993) with PDCA cycle. The study finds out that in planning phase there are 4





objects concern about quality, such as: (1) customers satisfaction factor, (2) the scope of the work carried out, in which related material and methods that must be used in the work, (3) organizational structure factors used during the project. In execution process, every step needs concern at Risk Management. After all implementation, there must be actions of strategies improving competitiveness. Key components to plan the quality culture are Customer Satisfaction, Work Breakdown Structure (WBS) and Organization Structure. All components should be converted as an output tool by using Quality Management System of Procedure. Risk management is needed to integrate key tools. Evaluation between plan and actual is needed to be considered. There are two instruments to understand what the real condition of business process. KPI are financial and non-financial measures that organizations use to reveal how successful they were in accomplishing long lasting goals. Competitiveness can be sustainable if and only if the resources resulting in competitiveness are kept alive and the company could establish a set of managerial processes.

Findings

The purpose of this study is to develop quality culture in power plant construction companies. By developing of national culture, vocational culture and the most important thing is organizational culture, company could understand their performance and build strategies for their future business development. Quality culture is expected for integrating project management. In a conventional company, the construction process has no standard quality of management. As time goes by, Companies are interested in quality management standards because it facilitates their work processes. Unfortunately, the standard could not guarantee that their company's competitiveness will be improved. Only one could guarantee quality management, it is Quality culture.

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