

# FINDING CRITICAL SUCCESS FACTORS FOR CONCRETE AND CONCRETE PRODUCTS COMPANIES

● LE HAI NAM - NGUYEN THI HONG HANH

## ABSTRACT:

There is a lack of researches about critical success factors for the concrete industry in Vietnam. This study uses a mixed research method which includes a cCase study and T-test analysis. There are analyzed 22 cases. The result showed that seven critical factors influencing the success of the company. Those factors are transportation management, customer relationship management, general product quality, upgrading staff competencies, new product development, meeting customer needs and manufacturing management.

**Keywords:** critical success factors, concrete, concrete products.

## 1. Introduction

What is a critical success factor? Rockart (1999) observes: "Critical success factors thus are, for any business, the limited number of areas in which results, if they are satisfactory, will ensure successful competitive performance for the organization. They are the few key areas where things must go right for the business to flourish. If results in these areas are not adequate, the organization's efforts for the period will be less than defined (p. 85)."

Different industries have different critical success factors (Leidecker and Bruno, 1984). Leidecker and Bruno (1984) proposed eight (8) methods of identifying critical success factors. Those are Environmental analysis, Analysis of industry structure, Industry/business experts, Analysis of competition, Analysis of the dominant firm in the industry, Company assessment, Temporal/Intuitive factors, PIMS Results.

To determination of factor importance of factors, several methods justify the importance of factors such as the major activity of a business, large dollars

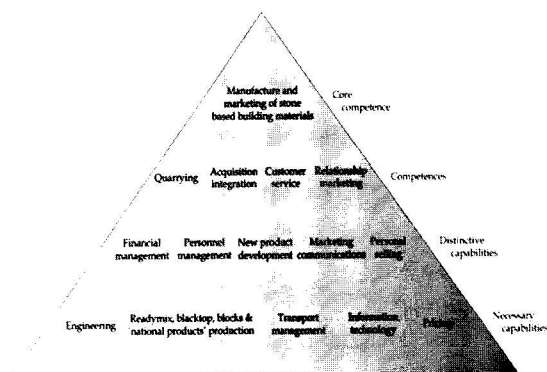
involved, major profit impact, major changes in performance.

This study will assess the company to identify the critical factors.

Different authors proposed different factors for different industries. Leidecker and Bruno (1984) proposed factors: Basic R&D, New Product development, Manufacturing, Distribution, customer service, Advertising, Post sales services. Kaplan and Norton (2006) proposed an internal business process, customer value, learning, and growth. Alexander and others authors proposed customer satisfaction, service quality, customer complaints range of service offered, reaction to customer needs, service excellent, technology capability, understand the customers employee and coordination, staff development, technology leadership continuous service improvement, upgrading staff competencies, management expectations, financial growth, cost reduction, productivity improvement, asset utilization, management of working capital (Alexander, Atkin,

and Brochner, 2004). Ahadzie, Proverbs, and Olomolaiye (2008) proposed critical success factors such as overall product quality, customer satisfaction, service quality, customer complaints range of service offered reaction to customer needs. O'Driscoll (2006) proposed critical success factors such as transportation management.

**Figure 1: Competence in Roadstone (O'Driscoll, 2006)**



Note: The figure is shaded increasingly from left to right to highlight marketing-related competence towards the right side.

## 2. Research method

This research uses a mixed-method between a case study and quantitative analysis. The case study in this research is Thuong Long Joint Stock company. All employees in the company will help to fill the questionnaire and participate in the interview.

### Sample

There are twenty 22 officers and managers in the company (Thuong Long Joint Stock Company). All these officers joined the survey. Hard copies of questionnaires were delivered directly to each staff. All the officers filled the questionnaires. The researcher collected all the answers and convert the officer answers into an excel file for further analysis. 23 completed questionnaires were received and analyzed. This research doesn't collect data from workers.

Respondents were invited to indicate the degree of importance of each of the success criteria based on a nine-point Likert's rating scale (extremely important = 9, very important = 8, Moderately important = 7, Slightly important = 6, Neutral = 5, slightly unimportant = 4 and moderately unimportant = 3, unimportant = 2, extremely unimportant = 1).

### 3. Data analysis

We test the reliability test base on Cronbach's alpha value. The Cronbach's Alpha=0.706. Which is

higher than 0.7. "Though some authors discourage the assignment of strength of reliability scale to this statistic as it is dependent on the number of judges (Cortina, 1993), 0.7 is generally considered a satisfactory value of alpha (Nunnally, 1978)" (Bresciani et al., 2009).

### 3.1. Rank of the importance

Manufacturing is the most important factor which influenced the company. From the data analysis, there are several factors which have higher scores than 138 ( $6 \times 23 = 138$ . All the staffs think that the factor is important).

Distribution = average (sum of major activity of the business, the sum of large dollars involved, the sum of major profit impact, the sum of major changes in performance)

$$= \text{average} (137 \ 80 \ 166 \ 170) = 138.25$$

Those factors are service quality, Marketing research, Transportation management, Relationship marketing, Overall product quality, Upgrading staff competencies, New Product development, Reaction to customer needs, Manufacturing. Those factors will be considered as important factors in future analysis. Manufacture is the most important factor which influences the performance of the company.

### T-test

"A one-sample t-test was carried out to determine whether the population considered a specific attribute to be important or otherwise. Furthermore, the mean ranking of each attribute was tabulated to help provide a clearer picture of the consensus reached by the respondents" (Ahadzie, 2008). A summary of the test results is shown in Tables 8–10. The mean for each attribute including the associated standard deviation and standard error is reported in each Table. For each attribute, the null hypothesis was that the attribute was unimportant ( $H_0: U = U_0$ ) and the alternative hypothesis was that the attribute was important ( $H_a: U > U_0$ ), where  $U_0$  is the population Media ( $U_0$  was fixed at 5, ). The significance level was set at 95% under conventional risk levels. Thus, based on the nine-point Likert rating scale, a success criterion was deemed critical or important if it had a mean of 5 or more. Where two or more criteria have the same mean, the one with the lowest standard deviation was assigned the highest importance ranking.

"reaction to customer needs" and "manufacturing" are not required large dollars

involved. Manufacturing required a large investment at the beginning, but when running this process doesn't require much investment. Transportation management, reaction to customer needs, upgrading staff competencies don't significantly influence to profit.

(New product development, Manufacturing, Overall product quality, Transportation management, Reaction to customer needs, Upgrading staff competencies) having major changes in the performance of the business.

#### **4. Conclusions**

After data analysis, this study finds out six critical factors for a business in concrete and unbaked brick. Those critical factors are: Transportation management, Relationship marketing, Overall product quality, Upgrading staff competencies, New Product development, Reaction to customer needs, Manufacturing

The most important factor is Manufacture and the second is Reaction to customer needs. These results are consistent with the study of O'Driscoll (2006).

There are a lot of factors that appear in O'Driscoll but doesn't appear in this study such as Information technology, Acquisition Integration, Readymix, blacktop, block&'national products" production, Pricing, Quarrying

From this study, Overall product quality is a critical factor. This factor doesn't appear in the O'Driscoll (2006) study.

#### **Management implication**

Base on this study of critical factors for a business in concrete and unbaked brick, companies in this field can focus their resources on those critical factors. To be successful in the field of concrete and unbaked brick, a company needs to focus on transportation management, relationship marketing, overall product quality, upgrading staff competencies, new product development, reaction to customer needs, and manufacturing process.

#### **Limitation and Future research**

This is a case study research. The sample size is small. In the future, the result of this study should be tested in a larger sample■

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**Received date: January 1, 2020**

**Reviewed date: January 12, 2020**

**Accepted date: January 25, 2020**

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### **TÓM TẮT:**

Không có nhiều nghiên cứu về những nhân tố thành công cho ngành bê tông và sản phẩm từ bê tông. Nghiên cứu này sử dụng phương pháp kết hợp bao gồm phân tích tình huống và T-test. Có 22 người tham gia khảo sát, phỏng vấn thuộc nghiên cứu này. Kết quả phân tích tìm ra 7 nhân tố ảnh hưởng lớn đến sự công cho ngành này. Đó là các nhân tố: Quản lý vận chuyển, xây dựng mối quan hệ với khách hàng, chất lượng chung của sản phẩm, nâng cao năng lực của nhân viên, phát triển sản phẩm mới, đáp ứng yêu cầu của khách hàng, và quản lý sản xuất.

**Từ khóa:** Nhân tố thành công, ngành bê tông, sản phẩm từ bê tông.