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## RESEARCH ARTICLE

### Role of On-Time & Honest Customer Services in the Success of Small Construction Companies in Saudi Arabia

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#### Abstract:

#### Background:

The construction companies need to maintain their success levels to survive in the competitive business environment. The concept of just-in-time plays a significant role to reduce the costs and fulfill the needs of valued customers.

#### Objective:

The study aims to evaluate the role of honest customer services that are provided to the construction companies in Saudi Arabia.

#### Methods:

The study has used a case study approach to analyze the role of on-time and honest customer services in the success of small construction companies. Interviews were conducted to gather details and characteristics of the associated company. It mainly focused on the interactions and behaviors of participants, rather than calculations.

#### Results:

The results have provided a great understanding of the success of construction companies based on success factors. The organizational culture, delayed schedule, required quantity, and just-in-time purchasing are amongst the exceptional and highly effective factors on just-in-time delivery and customer experience. Moreover, organizing and planning were considered to be important factors contributing to company success.

#### Conclusion:

There is a strong association between the delivery of honest customer services and the success of construction companies in Saudi Arabia."

**Keywords:** Case study, Construction companies, Customer experience, Customer services, Just-in-time, Organizational culture, Saudi Arabia, Success.

#### Article History

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## 1. INTRODUCTION

It is important for the construction companies to maintain their success levels for surviving in the recent competitive business environments. There is a continuous change in the construction industry, along with the new technological advancements [1, 2]. These companies have implemented certain technological applications and developed strategies to remain competitive in this era. A study conducted by Hutchings and Christofferson [3] stated that adequate customer

services, quality of construction, and warranty greatly affect the success of small construction companies. Majority of the small construction companies in Saudi Arabia fail or find difficulty in determining their workload, fulfilling due dates, and coordinating the different work effectively in progress [1, 4]. These factors adversely affect their honest customer services.

The concept of just-in-time is used for reducing costs, fulfilling the customer needs, and improve the quality of the delivered product. Under such circumstances, the adoption of just-in-time concepts has proved to be most effective [5 - 8]. It has been deemed that the construction industry is entirely

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based on the project performance and; therefore, resultant into low productivity [9]. The presence of low productivity in construction projects is due to the complexities encountered with uncertain time schedules within the construction phase [10, 11]. In this regard, Just-in-time can be beneficial considering the construction management and organizing the workforce and logistics [12]. The development of JIT philosophy was based on forwarding material method specifically for manufacturing method from one phase to the final phase [11, 13]. Therefore, continuous ongoing improvements have resulted through production cycle times, work-in-process inventory, and reduction of flow variation [14, 15]. It is associated with the involvement of some significant elements at the production, marketing, and purchasing level. Modern construction companies are likely to experience significant dramatic changes as a result of rapid change in workload, workforce, and corporate structure [16]. The success or failure of any project depends on the effective leadership and management of different projects [17 - 19]. Construction-related projects are considered risky because it has a greater possibility of resulting in a failure, which has a direct impact on the success of Construction Company. The use of low levels of quality monitoring of the projects to the customer results in severe damages; even when the total costs of monitoring the service quality are high [20, 21].

The study mainly aims to investigate the impact of honest customer services provided on time on the success of small construction companies in Saudi Arabia. Till date, no study has investigated just-in-time and customer experience comprehensively in the construction industry as per the knowledge. Therefore, this study has shown its novelty in examining the role of just-in-time and on-time experience in the construction industry. Similarly, this study has also explored the factors that increase the customer experience and just-in-time implementation in the construction industry.

## 2. LITERATURE REVIEW

### 2.1. Just-in-time and Construction Companies Success

The degree of complexity experienced by the construction projects determines the overall approach towards a specific project. It is defined as an intriguing factor in construction projects. There is a need for a specific system for reducing the complexity within the construction project to a manageable degree [22]. Javadian *et al.* [23] discussed the implementation of just-in-time manufacturing in the construction industry. The study has revealed that the production waste of the system is reduced through the just in the time production approach. The incorporation of just-in-time manufacturing requires immense coordination with supply chain to ignore delays in the production schedule, although the just-in-time system is less complicated.

Khan [24] reported the implementation of JIT approach in the textile sector of a developing country. Using the quantitative research design, it showed that JIT is crucial for the sector as it assists in determining adequate criteria for the selection of the supplier, establishing the adequate layout of a company, and for effectively managing the inventor. It also outlined that implementation of this approach enables better

scheduling, and maintenance policy, improved achievement of the quality standard, overcoming the difficulty of power shortage, buyer consistent demand, and provides an improved infrastructure.

In Saudi Arabia, Abdulmouti [25] conducted a study at the Port Installed Options Center (PIOC) in Toyota. Exploring the impact of Kaizen, it showed that the use of just-in-time approach allows reduction of the Kanban system, along with a reduced number of damaged vehicles and improved control. It also assisted the company to save an amount of US\$ 3.33 million, as it did not have to invest its capital for the formation of the new facilities nor to improve the number of installers required for meeting the increasing demands of the customers. Similarly, Alkhoraif and McLaughlin [26] concerning the implementation of lean strategies on the SME in the Saudi Manufacturing sector can be considered.

Researchers used a quantitative study method for analyzing the impact of lean efforts on its construction projects. It showed that implementation of the lean efforts should be improved in the manufacturing sector due to dissatisfactory results. In addition, Sarhan *et al.* [27] reported the implementation of lean construction in the construction sector of KSA. The study intended to reveal the barriers of implementing lean construction in KSA using the quantitative method. The results of the study revealed that there are almost twenty-two barriers in the construction sector, where primary barriers are client-related, barriers to use of traditional practices, technological barriers, cost-related barriers and performance, and knowledge barriers.

Patil Yogendra and Patil Dhananjay [28] provided a feasibility report of just-in-time inventory management on a construction project. The study has indicated the adoption of new business initiatives by construction companies to remain steady in the market place. By adopting these initiatives, companies can create low cost and high-quality products for the customers in a limited time. The adoption of just-in-time in the highway construction company is beneficial in putting efforts to all levels of the work. Maiseyenka [29] identified the procurement process and resources in adopting just-in-time system. The activities in manufacturing business operation and enterprise production were analyzed through just-in-time concept. The study has shown significant adoption of just-in-time concept in the construction industry based on its crucial aspects. Antunes and Gonzalez [30] developed an in-depth literature review to investigate the current production models and its attributes on production systems management. The study has investigated the implementation of just-in-time as a beneficial system in the construction industry to forecast the performance and behavior of dynamic project-based systems in the construction industry.

### 2.2. On-Time and Honest Customer Services

Mokhtariani *et al.* [31] examined the construction industry nature concerning marketing viewpoint and customer viewpoint. A systematic investigation has been implemented based on classification criteria of Lovelock and product classification system of Kotler from the marketing perspective. The study has indicated that project-based activities, marketing

mix-related functions, and relationship marketing are the core elements focused in terms of customer competitiveness. Fink [32] investigated the relationship between project performance and customer-focused competence. The study has included 1206 construction project teams to investigate the specific relationship. The findings have shown that the investigated project goals are assessed through assumed positive effects. The effects of duration, region, completion years, and type are revealed from the customer focus compliance and actual assessment. Moreover, the project goals were examined through share customer focus, share technical versus business background, share of women, and share of the employed project.

Preece *et al.* [33] critically reviewed the philosophy and technology of customer relationship management at an operational and strategic business level. The adoption of customer relationship management within the lifecycle of accessories might endow the effective management of current and prospective clients. Moreover, the adoption of building information modeling in the customer relationship management provides compatibility to construction organizations in terms of benefits.

Khan and Khoso [34] investigated the strategic management of construction projects for customer satisfaction. The study has shown the implications of beneficial and effectual strategic management in the satisfaction of customers. Similarly, construction projects have implemented and delivered corporate social responsibility as well as to outline the barriers and incentives. The implementation of just-in-time in the construction industry revealed the effectiveness of strategic management for customer satisfaction and delivering priority-based services for customers.

Bahaddad *et al.* [35] conducted a study on the e-Malls in the SME Sector of Saudi Arabia. It showed that maintaining an effective communication channel with customers is integral for the successful operations of the firm. It also demonstrated that the lack of online trading medium with the consumer could affect the performance of the firm and account for increased expenditure.

Ogbu [36] has focused on the performance and marketing strategies of construction firms in Nigeria. A survey questionnaire has been used to assess the marketing strategies of construction firms and to collect the data from 87 Chief Executive Officer(s) (CEOs) and managers. The findings have shown that managers effectively use marketing strategies for satisfying customers and providing services to customers. Similarly, publicity-based, client-based, and third party-based marketing strategies are focused on increasing the loyalty and satisfaction of customers.

The studies reviewed above have critically argued the management of supplies and services of construction assets and materials in the construction industry. Several studies have shown effective implementation of just-in-time as an effective system to increase the success of construction industries [23, 28, 37]. Similarly, customers are vital assets of any organization as they bring a potential insight into their current performance and success. In this regard, previous studies have

retained customer satisfaction due to effective marketing strategies and services.

### 3. MATERIALS AND METHODS

#### 3.1. Research Design

The case study approach has been used to analyze the role of on-time & honest customer services in the success of small construction companies in Saudi Arabia. The study has involved actual experiences of the participants rendering the development of a deeper and complete appreciation of interpretivism [38, 39]. Being an exploratory study, it involves an investigative process looking into the meanings and experiences brought up by different people [40, 41]. Moreover, it has mainly focused on the interactions and behaviors of participants rather than calculations. The type of construction industries included in this research is those linked with waste management.

#### 3.2. Data Collection

A primary qualitative data collection method was used to collect the data from the 10 participants recruited from renowned small construction companies (employees ranging from 1 to 200). The number of participants selected was deemed accurate as established in the recent study conducted by Hagaman and Wutich [42]. Accordingly, this data collection method was also found to help in the comprehensive understanding of the data without manipulating it [43, 44]. In this regard, semi-structured interviews were conducted using an open-ended questionnaire which comprises of relevant questions that would help in investigating the role of timely delivery to the customers [45, 46]. Apparent influences have been deduced for drawing related conclusions by collecting data through semi-structured interviews. The baseline characteristics of the participants are presented in Table 1. It shows that all the participants in the study were male (100%), of which the majority had an experience of 10-15 years (60%). The educational details of the participants show that the sample comprised of graduate (50%) population.

**Table 1. Participants characteristics.**

Variables		Frequency (n)	Percentage (%)
Gender	Male	10	100.00
	Female	-	-
Experience	5-10 years	1	10.00
	10-15 years	6	60.00
	15-20 years	2	20.00
	Above 20 years	2	20.00
Education	Bachelor's Degree	5	50.00
	Master's Degree	4	40.00
	Other (Diploma or Doctorate)	1	10.00

The study has developed an interview based on an open-ended questionnaire by considering just-in-time implementation and the customer experience in the construction industry. These themes include just-in-time implementation, organizational culture, just-in-time purchasing, delayed schedule, customer orientation, facility layout typical process, price quoting, delivery and quantities, and lack of conformance to assess the importance of customer experience [47, 48]. The selection of these variables is entirely based on the association with JIT philosophy and the customer experience in the construction industry. These are the most influential variables that can affect the relationship between JIT implementation and customer experience significantly.

### 3.3. Data Analysis

The data obtained through case study is based on different explanations, and the findings are compared to any statement or proposition that has been created [49, 50]. The present study has used explanation building process to analyze the qualitative data along with the set of analytical processes. Furthermore, thematic analysis has been used to analyze the responses collected from participants based on the themes formulated.

## 4. RESULTS

The results have shown a better understanding of the success of construction companies based on success factors. The findings have indicated that organizational culture, delayed schedule, required quantity, and just-in-time purchasing are amongst the exceptional and highly effective factors on just-in-time delivery and customer experience. The organizational culture, daily schedule, customer orientation, flexibility facility layout, and price quoting have a significant impact on success factors of just-in-time delivery and customer experience.

### 4.1. Organizational Culture and Customer Orientation

The important factors leading to the success of construction companies have been investigated through interviews that were mainly concerned with business management, owner-manager characteristics, and financial conditions. These factors are considered to be most important for achieving success, as stated by the majority of the respondents. According to one of the respondents:

“Belief of doing business in Saudi Arabia, according to me, is difficult for foreign companies because of cultural, political, and other differences. At the individual level, a good business relationship can be created through integrity, equality, mutual cooperation, acknowledgment, flexibility, and credibility”.

In a similar environment, the trust of an individual depends on social connections and interactions with different individuals. According to the respondents, organizing and planning were considered to be an important factor contributing to company success. However, it is difficult for the small construction companies to determine workload, fulfill due dates, and coordinate the different work effectively in progress. One of the respondents stated that:

“There are certain factors that affect the honest customer services; for instance, the concept of just-in-time to reduce

costs, fulfill the customer needs, and improve the quality of the delivered product. I believe that adopting these time concepts would be really effective and beneficial for the construction company.”

### 4.2. Improvements in Construction Companies Associated with Just-in-time

Certain complexities that are encountered within the construction projects are due to low productivity and inadequate time schedules. Therefore, the results of the present study have clearly shown that just-in-time would be beneficial for the construction company to manage and organize workforce and logistics. In the same context, one of the respondents stated that:

“The philosophy of just-in-time needs to be developed on the basis of forwarding material behavior that is specific to the method of manufacturing from the initial phase towards the final phase.”

The continuous improvements within the construction companies are associated with significant elements at marketing and purchasing levels. The respondents stated that just-in-time represented a philosophy of continual improvement for obtaining performance excellence within the operations of Construction Company. According to one of the respondents:

“In order to improve quality and eliminate waste, the excess inventory goes against the main objective of just-in-time. During the entire period of a construction project, the quality of product decreases; however, its impact is minimized.”

### 4.3. Factors Associated with Just-in-time

The initiative of just-in-time distribution implementation is covered through the new construction-related solution from a logistic viewpoint. The respondents stated that three steps are likely to be considered for targeting the new logistic strategy into consideration;

- Closing of the warehouses
- Delivery to the customers directly
- Ordering directly to the customer to the production site

The rapid development, therefore, requires a high level of quality to be provided to the customers on time with honest behavior for the construction projects. The small-sized companies can be flourished in the competitive market by following the quality standards for the construction projects. The construction companies define just-in-time as an efficient production system revealing all the aspects of production concerning efficient methods. One of the respondents stated that:

“The projects developed with just-in-time provides the capability to reduce flow times within production and the time it takes to respond from suppliers to customers. I also believe that the major idea behind all this for lean introduction is the elimination of waste.”

The implementation of a new just-in-time distribution strategy does not start within the construction company,

simultaneously. It is important for the managers to understand the clear focus of new construction related solutions for bringing significant improvement in customer service. The local small-scale companies are among the major reasons that the direction about new construction related solutions are taken centrally without any explanation. This discussion was agreed by a majority of the respondents, among that one of the respondents stated that:

“The construction companies observe the direction in the aspect of decreasing costs along with their relationship with the customers. According to my perception, no inventory or success can be achieved by decreasing our customer service.”

## 5. DISCUSSION

The results have clearly depicted that the quality of the construction projects on delivery is important for the organizations looking for competitive advantage [51, 52]. There are different factors that affect the quality of construction projects in Saudi Arabia. These factors are considered as a main focus for the construction professionals and government. In Saudi Arabia, the construction industry is characterized by dynamic and energetic competitors where the quality holds a dominant effect on the construction companies [53]. Quality is significantly becoming the reason for customer's satisfaction [54]. There is no doubt about a positive role of quality customer services in the success of small or medium-sized construction companies in Saudi Arabia [55].

The idea of quality is to derive benefits to the customers and also to the manufacturers by lessening the cost aiming to decline the total cost as well [56, 57]. Generally, the ability of any product or service to fulfill the basic need is a direct consideration of its valuable customers because the customer is an individual who can be influenced by the product, process, and the services [58]. Additionally, it has been suggested that the construction companies, especially the one which are initially developed, should focus on the strategic development in favor of customers need and requirements [59, 60]. A study conducted by Sarhan *et al.* [61] reported that the lean construction is the mainly used idea in the construction stages; whereas, the customer satisfaction is deliberated as the main concept and derived from the lean construction concept. The study has further identified the factors that may assist in attaining customer satisfaction and noticed that customer satisfaction could be effectively attained through honest and proper response. It has been suggested that small-sized construction companies must attain the customer satisfaction initially through honest and frank behavior and must try to respond them in an effective and efficient manner in order to become a reliable construction project manager [62 - 64].

Another study conducted by Nady *et al.* [65] reported that there is a positive yet significant role of communication, time, and cost management on the success of any construction company. The study targeted a sample of different customers of construction projects in the city of Makkah, Saudi Arabia. A model was developed through the conceptual frameworks of previous investigations. The study mainly emphasized on the role of time, cost, and communication on the project management success. The study outcome has demonstrated that there is a positive and effective role of time, cost, and communication on the project management success [66, 67]. The study further provided an insight to conduct more studies

in the future relevant to the existing one. The study has ultimately pinpointed the main idea that customer satisfaction can be attained through the effectiveness of time, cost, and communication [68 - 70]. The outcomes of the study are proved beneficial for the present discussion.

Ramanathan *et al.* [71] reported that the quality of a construction project can be influenced by the behavioral and cultural characteristics that are relevant to the customer's requirements. Presently in Saudi Arabia, the construction industry is experiencing significant challenges in the implementation of quality management processes. This may be mainly due to the competitive market among the international and local companies because it has been observed that construction companies are going through remarkable developments and enhancements in different cities of the country [72, 73]. It is essential to pay attention and focus more to enhance the product life cycle, workers' abilities and maintaining the final product according to the customer requirements so that their satisfaction could be easily ensured [74].

## CONCLUSION

The present study has evaluated the role of honest customer services that are provided to the construction companies in Saudi Arabia. Using a qualitative study design and a case study approach, this study has established that efficient quality measures ensure smooth and effective working of the firm. Moreover, the construction projects in Saudi Arabia, either big or small, need to work hard and make efforts towards improving the quality and standards of the construction projects and relevant practices involved. It is important to attain customer's satisfaction and ultimately taking a dominant position in the market. There is no doubt that there is a strong and effective bond between the management standards of construction projects and the customers. It is because the customers put their trust and faith in the project management to obtain the best quality of the project on which they have invested. Therefore, the study has depicted relevant outcomes in case of the role of on-time and honest customer services in the success of small construction companies in Saudi Arabia.

The findings of the study assist in improving the operational efficiency, production, and quality by developing necessary understanding related to the implementation of quality integrated construction practices in KSA. Improved communication with the customer can enhance the quality of the construction projects, reduce cost, and improve timely rectification. The study also directs future research as more explicit findings are required for eliminating various types of waste in the Saudi construction industry. Furthermore, successful critical factors are to be identified, which assists in better construction operations. Likewise, the findings of the study are limited to the construction sector of Saudi Arabia due to the use of the qualitative study design. Therefore, future research can investigate the construction sector of different regions for drawing holistic findings. Also, approaches other than just-in-time can also be explored for widening the study horizon.

**CONSENT FOR PUBLICATION**

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**CONFLICT OF INTEREST**

The authors declare no conflict of interest, financial or otherwise.

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