

Impact of organization strategic decisions to organization performance in the Saudi construction industry



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ABSTRACT

Increasing competition is forcing organizations to make strategic decisions in the long term. A successful performance measurement systems are lacking in the construction industry. Moreover, the results achieved from the existing financial-based performance measurement systems cannot be used to derive future performance. Therefore, a comprehensive performance measurement system consisting of both qualitative and quantitative measures is needed for the construction industry. The purpose of this paper is to investigate and explore the impact of organization strategic decisions on organization performance in Saudi Arabia. This study is based on a hypothetical framework and questionnaire survey obtained from 93 respondents from the top level of 28 construction organizations in Arar, KSA. This paper is one of the few studies which investigate the relationship between organization strategic decisions and possibilities impact on organization performance. It concluded that there is a strong relationship between the organization strategic decisions measures and the organization performance perspectives indicators.

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1. Introduction

Performance measurement is a significant management tool that organizations use to compete in an ever-changing environment. It supports decision-making processes by providing information about how well a set of targets have been met and how precisely predictions have been made (Rantanen et al., 2007). The construction industry plays an important role in any country's development process and economic growth. Construction companies are very sensitive to their environments, such as economic condition, political issues, the material available, and many others. Its activities characterized by project-oriented activities. The terms of a project will lead to a group of inter-linked activities to undertake a unique scope of work, of a given specification, within constraints of cost and time, and requiring a central intelligence to direct it (Nunnally, 1998). In practice, many large construction companies use strategic planning to

improve their chance of success. However, strategic management is not solely for larger firms. According to Stahl and Grigsby (1992), strategic decision making is not the exclusive domain of large companies. It is an important activity for all sizes and type of organizations. Numerous studies have been carried out on strategic management in the construction field. This included recent studies by Chinowsky and Meredith (2000), Dikmen and Birgönül (2003), and Price et al. (2003). During the last decade, Saudi Arabia has experienced unprecedented construction activity that has attracted construction professionals from all over the world. "Saudi Arabia's Vision 2030" encompasses in a number of domains strategic objectives, targets, outcome-oriented indicators, and commitments that are to be achieved by the public, private, and nonprofit sectors. The study aims to investigate and explore the impact of organization strategic decisions on organization performance in Saudi Arabia (Evan and Guzansky, 2016).

2. Literature review

2.1. Organization strategic decisions

The literature on strategic decision-making is spread over a wide range from an individual strategist's perspective to strategic management techniques, to the implementation of these

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techniques in real situations (Neely et al., 1997). The strategies selected for this study represent the characteristics of the construction industry as a project-based organization. Differentiation strategies refer to the differentiation of products or services that provides a competitive advantage and allows an organization to deal effectively with the threat of new entrants to the market (Porter, 1979). Many new construction organizations enter the industry every year because starting a new organization does not require a large investment; consequently, the construction industry becomes more competitive and forces existing organizations to seek advantages over competitors by means of differentiation strategies. Market, project, client and partner selection strategies are related to the characteristics of construction projects such as the location and complexity of the project, environmental conditions, availability of competent subcontractors, availability of materials, equipment and know-how locally, financial stability of the client, and potential partners that have capabilities that the organization does not possess. Organizational management strategies involve decisions pertaining to the organization's reporting structure, planning, controlling and coordinating systems, as well as the management of the informal relations among the different parties within the organization (Barney, 1991). Customer relations strategies is a complex concept requiring appropriate business process and integrated systems. In addition to that a need for effective leadership, sourcing, communication, and evaluation within Customer Relationship Management (CRM) strategies (Zamil, 2011).

2.2. Organization performance

The Balanced Scorecard (BSC) perspective was adopted in this study to measure the organization performance because of its established status and its common use in the construction industry. It is a framework for measuring the strategic, operational and financial characteristics of an organization. It combines four perspectives to assess the performance of an organization. The financial perspective indicates the success of the organization measured in terms of indicators such as profitability, turnover, etc. The financial performance measures indicate whether the organization's strategy, implementation, and execution are contributing to bottom-line improvement. The financial objectives reflect the financial performance expected from the strategy and also serve as the ultimate targets for objectives and measures of all the other scorecard perspectives. Measures of the financial performance of an organization are important in the reduction of risk but overemphasis on it leads to an unbalanced situation with regard to other perspectives (Liebowitz and Suen, 2000). Organizations that really benefit from a scorecard process would inevitably move the focus of their attention to the non-financial scorecard metrics (Rompho, 2011). It is understandable that overemphasis on short-term

financial results can cause organizations to overinvest in short-term fixes and to underinvest in long-term value creation (Kaplan and Norton, 1996). The learning and growth perspective refers to the progress achieved by an organization and its growth potential. Organizational learning capacity and the achievements of the organization in such areas as organization image or various competencies are also taken into account in this perspective. The learning and growth perspective of the BSC identifies the infrastructure that the organization must build to create long-term growth and improvement. The predominant element within this perspective is whetted the organization possesses the required capabilities to improve and create future value for its stakeholders. This perspective looks at the ability of employees, the quality of information systems, infrastructure, and practices in supporting the accomplishment of organizational goals (Amaratunga et al., 2000). The internal business perspective is an indicator of the success and efficiency of the operational and managerial activities in the organization. Through the use of BSC, the key processes in an organization are monitored to ensure that outcomes will be satisfactory and thus it serves as a mechanism through which performance expectations of both customers and the organization are achieved. It is further argued that this perspective reveals two fundamental differences between the traditional and BSC approaches to performance measurement. The traditional approaches attempt to monitor and improve existing business processes whereas the BSC approach identifies entirely new processes at which the organization must excel to meet customer and financial objectives (Amaratunga et al., 2000). The customer perspective considers the satisfaction of the different participants in the project such as the client and ultimate users. How an organization is performing through the eyes of its customers has, therefore, become a priority for business managers and this perspective captures the ability of the organization to provide quality goods and services and achieve overall customer satisfaction (Amaratunga et al., 2000). Leaders in the service industry are good at customer orientation meeting customer requirements and performance measurement (Robson and Prabhu, 2001). The core outcome measures include customer satisfaction, customer retention, average customer duration, loyalty, repeated businesses, customer claims, complaints, customer profitability, annual income per customer, short lead times, new customer acquisition, delivery on time, market, and account share in targeted segments (McCabe, 2001).

3. Materials and methods

A proposed framework was set based on organization strategic decisions measures and performance measurement indicators literature, then a questionnaire was designed to meet the objectives of the study, namely to determine

knowledge and views of construction organizations top management with regard to performance measurement. A questionnaire survey was then developed consisting of questions that inquire performance determinants that measure the latent variables, and each question was associated with constituent variables of the latent variables. A convenient sample of 100 construction organization top members from 28 construction organizations was identified in a random selection process and the respondents were 93 which represents 93% of the total sample. Lastly, data were collected, organized, and analyzed with computer software called EQS6.4.

4. Results and discussions

4.1. The validity of the performance measure and indicators

The data obtained from 93 respondents construction organizations and 28 construction organizations in Saudi Arabia, then analyzed the data using SEM software package called EQS6.4.

4.1.1. Content validity testing of performance measures

Content validity tests to rate the extent to which a constituent variable belongs to its corresponding construct. Since content validity cannot be tested by using statistical tools, an in-depth literature survey is necessary to keep the researcher's judgment on the right track (Dunn et al., 1994). An extensive literature survey was conducted to specify the variables that define latent variables.

4.1.2. Scale reliability testing of performance measures

The scale reliability is the internal consistency of a latent variable and is measured most commonly with a coefficient called Cronbach's alpha. The purpose of testing the reliability of a construct is to understand how each observed indicator represents its correspondent latent variable. According to the analysis results (Table 1). Cronbach's alpha values were 0.901 for "Organization strategic decisions" and 0.886 for "organization performance". These reliability values are satisfactory since the Cronbach's alpha coefficients are all above 0.70 (Nunnally and Bernstein, 1967).

Table 1: Cronbach's alpha

Latent variable	Cronbach's alpha
Organization strategic decisions, δ	0.901
Organization performance, \emptyset	0.886

4.1.3. Convergent validity testing of performance measures

Convergent validity is the extent to which the latent variable correlates to corresponding items designed to measure the same latent variable.

Ideally, convergent validity is tested by determining whether the items in a scale converge or load together on a single construct in the measurement model. The factor loadings are statistically significant, then convergent validity exists. Since sample size and statistical power have a substantial effect on the significance test, this statement needs expanding (Dun et al., 1994). The model parameters were assessed and all factor loadings were found to be significant at $\alpha = 0.05$ (Tables 2 and 3).

Table 2: Factor loading of organization strategic decisions

Organization strategic decisions, δ	Factor Loadings
Differentiation strategies, δ_1	0.598
Project selection strategies, δ_2	0.884
Market selection strategies, δ_3	0.954
Partners selection strategies, δ_4	0.950
Organization management strategies, δ_5	0.848
Customer relations strategies, δ_6	0.425

Table 3: Factor loading of organization performance

Organization performance, \emptyset	Factor Loadings
Financial perspective, \emptyset_1	0.495
Internal business perspective, \emptyset_2	0.509
Learning and growth perspective, \emptyset_3	0.779
Customer perspective, \emptyset_4	0.696

4.1.4. Discriminant validity testing of performance measures

Discriminant validity is the extent to which the items representing a latent variable discriminate that construct from other items representing other latent variables. This is particularly important when constructs are highly correlated and similar in nature. In essence, items from one scale should not load or converge too closely with items from a different scale.

4.2. Structural model analysis

4.2.1. Specification of the model

A series of literature reviews and expert interviews were conducted to develop a conceptual model that shows how the latent variable "organization strategic decisions" affect "organization performance". The model prepared for this purpose assumed that "organization strategic decisions", influence the "organization performance". This model is specified by the following direct path equation:

$$\emptyset = a\delta + c \quad (1)$$

where, \emptyset = organization performance; δ = organization strategic decisions; a = path coefficient, and c = error term.

4.2.2. Estimation and identification of the model

It means that it is theoretically possible for the computer to derive a unique estimate of every model parameter. Different types of structural equation models must meet certain requirements in order to

be identified. If a model fails to meet the relevant identification requirements, the attempts to estimate it may be unsuccessful. There are several methods of model estimation, some frequently utilized methods include maximum likelihood (ML), generalized least squares (GLS), asymptotically distribution-free (ADF) estimator and robust statistics.

4.2.3. Evaluation of the model fit

It means to determine how well the model as a whole explains the data. Once it is determined that the fit of a structural equation model to the data is adequate, the performance measurement model is completed. However, it seems that the concern for overall model fit is sometimes so great that little attention is paid to whether estimates of its parameters are actually analyzed. The model fit

indices for each construct was assessed through the non-normed fit index (NNFI), comparative fit index (CFI), the root mean square error of approximation (RMSEA) and the ratio of Chi-square (χ^2) per degree of freedom (dof). Model fit indices analysis results for each construct can be seen in Fig. 1 and Table 4.

Then, within the structural model illustrated in Fig. 1, for every unit "organization strategic decisions" go up, "organization performance" also goes up 0.523. Moreover, the impact of measures of "organization strategic decisions" on "organization performance" indicators can also be analyzed mathematically such as:

$$\delta_1 * 0.602 * 0.523 = 0.726 * \phi_1 \quad (2)$$

then, the perspectives values in term of performance measures and indicators can be listed in Table 5.

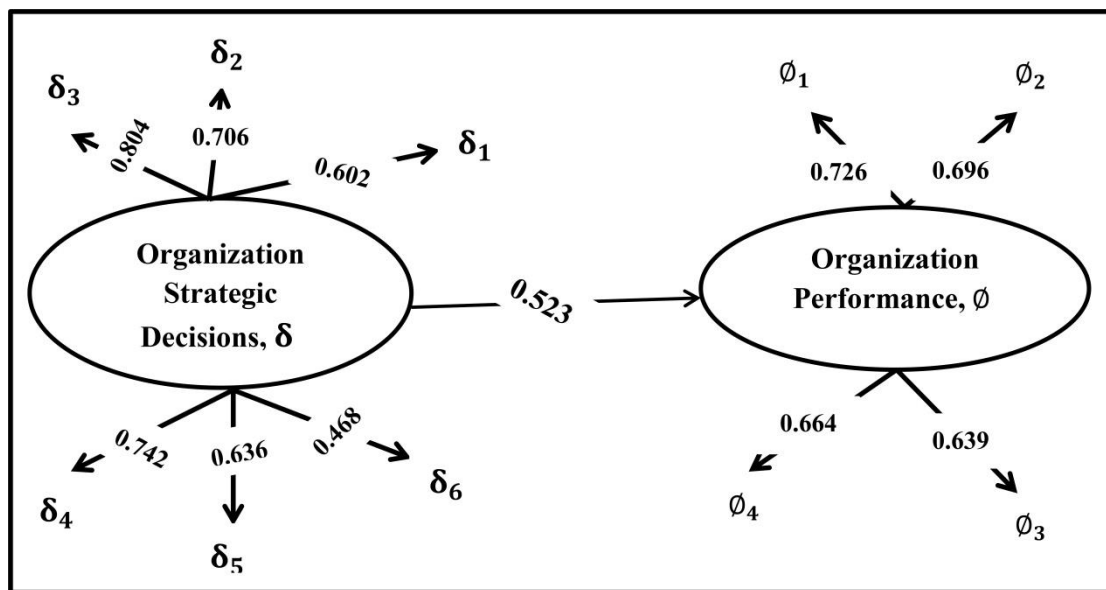


Fig. 1: Impact of organization strategic decisions to organization performance

Table 4: Model fit indices for Organization Strategic Decisions to Organization Performance

Fit indices	Allowable range	Overall
NNI	0 (no fit) – 1 (perfect fit)	0.727
CFI	0 (no fit) – 1 (perfect fit)	0.891
RMSEA	< 0.1	0.091
χ^2/dof	< 3	1.468

Table 5: Values of performance perspectives in term of measures

ϕ_1	ϕ_2	ϕ_3	ϕ_4
$0.434 * \delta_1$	$0.452 * \delta_1$	$0.493 * \delta_1$	$0.474 * \delta_1$
$0.509 * \delta_2$	$0.531 * \delta_2$	$0.578 * \delta_2$	$0.556 * \delta_2$
$0.579 * \delta_3$	$0.604 * \delta_3$	$0.658 * \delta_3$	$0.633 * \delta_3$
$0.535 * \delta_4$	$0.558 * \delta_4$	$0.607 * \delta_4$	$0.584 * \delta_4$
$0.458 * \delta_5$	$0.478 * \delta_5$	$0.521 * \delta_5$	$0.501 * \delta_5$
$0.337 * \delta_6$	$0.352 * \delta_6$	$0.383 * \delta_6$	$0.369 * \delta_6$

5. Conclusion

The construction industry is closely related to the uncertainty in the environment that may affect the performance of a construction organization. High competition and many other negative aspects in the external environment, which become threats to organizations to develop their business that need to

be handled carefully through a strategic management approach. Globalization brought more capacity for organization strategic decision on construction organizations, expand the market areas, a variety of projects and improve competitively. Performance management of organizations became an important subject of interest during the last decades. The proposed performance measurement tool extrapolates the organization strategic decisions that the organization will need to innovate and enhance its "learning and growth" as well as "financial issues", organization "internal business", which leads to "customer satisfaction". Also, this study has introduced a method to measure performance both in qualitative and quantitative terms with respect to organization strategic decisions measures. The performance measurement framework designed by the optimization of the industry professionals' experiences with an extensive literature review was verified by the analysis of the data. Hence, a comprehensive and valid performance measurement tool was provided for construction organizations to assess not only

their current performance in means of retrospective terms but also to assess their future performance by prudential success factors which lead them to set strategies in the long term. The strong path coefficients between the constructs of the model are an indication that after decades in pursuit of finding ways to improve the performance of construction organizations, subjective dimensions of performance have proven to be as effective as the traditional objective dimensions.

Compliance with ethical standards

Conflict of interest

The authors declare that they have no conflict of interest.

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