

# Organizational Performance of Companies in Saudi Arabia: The Mediating Effect of Knowledge Sharing



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**Abstract:** *Organizational performance (OP) is important for the company, employment and the country. Previous studies deployed secondary data approach in developed countries while few studies examined the OP using primary data approach. Using the theories of resource based view, knowledge based view, this study aims to examine the effect of organizational culture (OC), organizational structure (OS), and technology infrastructure (TI) on OP of companies in Saudi Arabia. In addition, the study aims to examine the mediating role of knowledge sharing (KS). Using a purposive sampling, the data was collected from managerial level employees in Saudi. The results of Smart Partial Least Square showed that the OC is the most important variable followed by OS and TI. KS mediated the effect of OC and TI on OP. Companies in Saudi Arabia should establish a KS culture and enhance their TI to achieve competitive advantage and better OP.*

**Keywords :** *Knowledge Sharing, Organizational Culture, Technology Infrastructure, Organizational Performance.*

## I. INTRODUCTION

Organizational performance (OP) is the most important construct in the area of management [1]. This importance increase in the large scale companies where these companies to large extend support the employments in the country and the gross domestic product (GDP). In contrast, the weakness of OP of large companies either listed or non-listed has massive impact on the economy as well as the employment and the foreign direct investment [2]. Therefore, the importance of OP of companies extend not only to the economy as a whole but to individual and organizations operating in that economy [3].

Nevertheless, examining the large companies, majority of previous studies has focused on the secondary data approach and examine the effect of factors such as corporate governance, board director characteristic and audit committee characteristic while the focus on using primary data approach which give more contemporary view of the present and future performance of companies have received limited attention from previous studies [4]. In addition, majority of previous studies were conducted in developed countries and few have been done in the developing countries.

For this reason, this study aims to examine the effect of emerging variables such as KS which is a key variable that can affect the performance of companies and performance of individual. In Saudi Arabia, which is one of the leading oil exporters and have several companies that are among the largest companies in the world, the country is aiming to reduce the dependency on oil and for this reason launched the vision 2030 which aims to reduce the dependency and create various resources. OP of companies is essential for this vision and has to be improved to fulfil the vision and reduce the dependency on oil. In addition, the local companies are facing unprecedented competition. OP has been investigated in few studies in the country and majority relied on annual reports. Variables such as the culture, structure, and TI has not been investigated in the context of Saudi Arabian companies. Researchers in the management context highlighted that companies that relied on its resource and capabilities can create competitive advantage. In addition, companies that use their knowledge effectively will achieve a competitive advantage and better OP [5]–[9]. Accordingly, the purpose of this study is to examine the mediating role of KS in the context of OC, structure, TI and OP of Saudi large companies. The remaining of this paper discusses the literature review and hypotheses development, as well as the methodology, findings, discussion, and conclusion.

## II. LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

This section discusses the OP, the theories such as Resource based view and Knowledge based view as well as the hypotheses development.

### A. Organizational Performance

OP has been defined differently by researchers. However, recent definition that considered the dimensions of OP included the financial and non-financial performance. OP is referred to by [10] as a group of financial indicators as well as non-financial one that gives information regarding the attainment of the organizational goals and objectives. In line with this definition, [11] indicate that performance consists of profit, market share, and shareholders dividends. In this study, the OP is measured using financial and non-financial indicators. This approach has been used in several studies that look into OP from primary data approach such as in the study of [12]–[14]. This is also in agreement with the Balanced Score Card which proposed that performance must be measured using financial and non-financial measurement [15].

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## B. Theoretical Framework

The theories that governed this study is the resource based view and the knowledge based view. RBV proposed that organizations can achieve competitive advantage and improve their performance if they rely on their resource and capabilities [16]–[18]. OS, TI, and OC are resource and capabilities of organization and they can monitor and control these variables to enhance their performance. On the other hand, the knowledge is the most important asset in organization. Managing knowledge and creating and sharing the knowledge among the organizational members will lead to better KS and will reduce the operational cost and enhance the productivity of employees and their organizations. Further, the knowledge management capabilities model (KMCM) proposed that organization can create effective performance when relying on the Knowledge process capabilities and knowledge infrastructure capabilities. While previous studies extensively examined the KM process capabilities, the KM infrastructure capabilities has not been examined sufficiently. For this reason, this study focuses on the KM infrastructure capabilities which includes the OC, structure, and TI.

## C. Conceptual Framework and Hypotheses Development

Based on the RBV and KBV as well as the KMCM, the framework of this paper focuses on the effect on OC, OS, and TI on the performance of large companies in Saudi Arabia. In addition, the framework proposed that KS can mediate the effect of the three variables on the OP. Figure 1 shows the framework of this study.

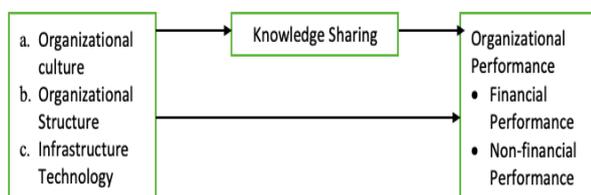


Figure 1: Conceptual Framework

## D. Organizational Culture

OC represent the capability of organization to learn and develop memory as well as setting the roles that govern the organizational practices regarding the norms and beliefs [19]. Researchers viewed the changes in OC as a positive changes that can lead to better OP which lead to an increase in the OP [20]. Several researchers found that OC can affect positively the OP [21]–[23]. Thus, in this study it is proposed:

H1: Organizational culture has a significant effect on OP.

## E. Organizational Structure

OS known as the systems that govern the way of operation as well as the structure and level of command as well as rules and regulation of reporting [24]. These dimensions of structure affect the organizational leadership [25], [26]. It is suggested by researchers that in order for organization to benefit from the technology and knowledge related activities, the OS should be flatter which leads to more KM effectiveness [27]. Previous studies have incorporated OS and related the OS to competitive advantage [4], [13], [14],

[28]–[30] and KM effectiveness [27]. [31] found that OS does not affect structural social capital and cognitive social capital of the Dutch companies. In this study, it is proposed:

H2: Organizational structure has a significant effect on OP.

## F. Technology Infrastructure

TI in an organization refer to the systems through which the information and knowledge is accessed and shared [32], [33]. Previous studies support the positive effect of TI on the OP [4], [20], [29]. However, some researchers found contradicted results. For example, Mills and Smith (2011) investigated the TI effect on OP and found negative insignificant effect between the variables. [31] also found no effect of TI on the structural and cognitive social capital of Dutch companies. In this study, it is proposed:

H3: Technology infrastructure has a significant effect on OP.

## G. Knowledge Sharing

The process of KS is defined as the exchange of knowledge, idea, experience and skill between organizational member and between departments of the organization [34]. There are two types of knowledge. The first is explicit shared through written document and visual media while the second is tacit which resides in the head of the owners and require effort and trust to be shared with others [35]. Tacit knowledge is more important and contribute greatly to the performance of employees and organization [36], [37].

Studies that investigated the effect of KS on organizational outcomes such as competitiveness, innovation, and financial and non-financial performance found that KS is essential for organizations to achieve superior performance. For example, [38] found that KS is the most important variables that affect the competitiveness of Taiwanese companies. Similarly, the study of [19] revealed a significant effect of KS on business strategy of manufacturing companies in Taiwan. [39] found significant effect of KS on sales growth, quality improvement, and customer satisfaction in Iranian SMEs. Therefore, in this study, KS is expected to mediate the effect of OC, OS, and TI on OP of Saudi's companies.

H4: Knowledge sharing mediates the effect of organizational culture on OP.

H5: Knowledge sharing mediates the effect of organizational structure on OP.

H6: Knowledge sharing mediates the effect of technology infrastructure on OP.

## III. RESEARCH METHODOLOGY

The population of this study is the company listed on stock exchange as well as the large scale companies. At the end of 2018, number of listed companies was 262 while large scale companies accounted to 373 making the population of this study 635 companies. The respondents of this study are the managerial level employees. Accordingly, a purposive sampling technique is deployed due to the fact that managerial level have experience and knowledge regarding the culture, structure, and knowledge activities in the organization.

The data was collected using a questionnaire. The questionnaire was adopted from previous reliable studies. Items of OP was adopted from [40] while the items of OC and structure was adopted from [31]. In addition, the items of KS were adopted from [29]. Before, conducting the filed data collection, the questionnaire was translated into Arabic and validated by two experts in strategic management. A pilot study was conducted prior to data collection. All the measurement was reliable. A total of 635 questionnaire was distributed to respondents using a network referral and snowballing approach. After following up, a total of 152 responses were collected making the response rate 24%.

IV. FINDINGS

This section presents the findings of this study. The section first conduct an examination of the data followed by profile of the respondents and results of the hypotheses testing using Smart Partial Least Square (Smart PLS).

A. Data examination

Based on the suggestions of [41], the data of this study was examined for missing values, outliers, normality and multicollinearity. Using frequency analysis, more than 13 of the responses were missing less than 15% of the answers while 3 of the respondents were missing large amount of the answers and they were removed accordingly. The outliers was conducted and it was found that five of the responses were identified as outliers. Thus, these five responses were deleted. Deleting three responses for missing value and five for outliers reduced the usable data to 144 responses. Further, the normality analysis was conducted and it showed that the Skewness and Kurtosis of the data is less than two indicating that the data is normally distributed. Lastly, using the variation inflation factor and tolerance, the data was found to not have multicollinearity issues [42].

B. Profile of Respondents

A total of 144 respondents participated in this study. Majority of the respondents (84%) are males while 16% are females. The respondents (89%) have bachelor degree and work experience (71%) of more than 15 years.

C. Measurement Model

The measurement model of this study was assessed based on the suggestions of researchers such as Hair. Some of the items were deleted due to factor loading. Factor loading less than 0.70 were removed. The Cronbach’s Alpha (CA) for all the variables were greater than 0.70 as well as the composite reliability (CR). Further, the convergent validity were achieved due to the fact that the average variance extracted (AVE) is greater than 0.50. Table 1 shows the results of assessing the measurement model.

Table 1: Convergent Validity

Variables	Cronbach's Alpha>0.70	Composite Reliability>0.70	AVE>0.50
Organizational culture	0.95	0.96	0.76
Organizational structure	0.88	0.91	0.68
Organizational Performance	0.93	0.94	0.58
Infrastructure technology	0.94	0.95	0.81
Knowledge sharing	0.96	0.97	0.82

The discriminant validity of the measurement also were achieved because the root square of AVE (Bold) were greater than the cross loading.

Table 2: Discriminant Validity

	OC	OS	OP	IT	KS
Organizational culture	<b>0.87</b>				
Organizational structure	0.56	<b>0.83</b>			
Organizational Performance	0.49	0.56	<b>0.76</b>		
Infrastructure technology	0.62	0.57	0.46	<b>0.90</b>	
Knowledge sharing	0.67	0.43	0.54	0.70	<b>0.91</b>

Accordingly, the measurement model was assessed and the structural model can be examined.

D. Structural Model

To assess the structural model, Hair suggested that the r-square, predictive relevance, effect size and coefficient must be examined. The r-square of this study accounted to 0.512 indicating that 51% of the performance can be explained by the variables. Predictive relevance (greater than zero) and effect size (greater than 0.02) were acceptable. Results of the hypotheses testing is shown in Table 3.

H	Path	β	STD	T-values	P-values
H1	Organizational Culture -> Organizational Performance	0.57	0.09	6.03	0.00
H2	Organizational Structure -> Organizational Performance	0.32	0.08	3.78	0.00
H3	Technology Infrastructure -> Organizational Performance	0.21	0.09	2.29	0.02

The first hypothesis predicted that the OC has a significant effect on OP. findings in Table 3 indicate that the effect is positive and significant with P-value less than 0.05. Thus, H1 is supported. Similar findings were derived for H2 regarding the effect of OS on OP as Table 3 shows that the effect is positive and significant. For H3, the TI has a significant effect on OP. Thus, H3 is supported.

For testing the mediating effect of KS, the direct effect with and without KS was tested and compared with the indirect effect. The findings indicated that the mediating effect of knowledge between OC and OP (OC→KS→OP) is significant indicating that H4 is supported and KS mediated the effect of OC on OP. for H5, the KS did not mediate the effect of OS on OP (OS→KS→ KS) is not significant thus, H5 is rejected. For H6, KS mediated partially the effect of TI on OP (TI→KS→ KS). Thu, H6 is supported.

V. DISCUSSION

This study was conducted to examine the mediating effect of KS between OC, structure, and TI with OP. The findings indicate that OC, structure, and TI have significant effect on OP. In addition, the findings indicated that KS mediated partially the effect of OC and TI on OP. The findings indicates that companies in Saudi Arabia must establish a culture that support the KS among the organizational member.



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They are also recommended to use a flat structure that can facilitate the KS and increase the speed of decision making. In addition, the companies in Saudi Arabia are recommended to deploy technology to foster the KS. Findings of this study are in agreement with the findings of previous study such as [4], [13], [20], [29], [30]. These studies found that OC, structure and TI are important predictors of OP. In addition, the findings are in agreement with the findings of [36], [37], [38] [19], [39] where KS found to mediate the effect of the culture and TI on OP.

## VI. CONCLUSION

The findings of this study were derived from small number of respondents. The findings also were obtained from large scales companies conducting businesses in Saudi Arabia. In addition, purposive sampling was used to collect the data of this study. Future studies are advised to expand the sample size so that the findings can be more generalizable. Further, future studies are recommended to include all the management level so that a holistic view of the impact of variables such as culture, structure and TI can be obtained. The future studies are suggested to deploy a random sampling or stratified sampling so that the findings can be more generalizable. The study has achieved its purpose and found that the most critical factors for the OP is the OC followed by the structure and TI. The study also found that KS is important predictor of OP and can mediate the effect of OC and TI on OP.

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