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THE EMPIRICAL RELATIONSHIP BETWEEN THE  
STAKEHOLDER INVOLVEMENTS, PROJECT MANAGER SKILLS,  
TOP MANAGEMENT STRATEGY AND PROJECT SCOPE  
MANAGEMENT: A STUDY ON GOVERNMENT PROJECTS IN  
THE SULTANATE OF OMAN

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**Qais Hashil Salim Al-Rubaiei\*, Faizatul Akmar Abdul Nifa, Suria Musa: The Empirical Relationship Between the Stakeholder Involvements, Project Manager Skills, Top Management Strategy and Project Scope Management: A Study On Government Projects in the Sultanate of Oman -- Palarch's Journal Of Archaeology Of Egypt/Egyptology 17(6), 1-14. ISSN 1567-214x**

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## ABSTRACT

The study aims to examine the relationship between the stakeholder's involvement, project manager skills, top management strategy and project scope management in the funded government project in the Sultanate of Oman. A mapping of this relationship has been issued in previous paper to highlight the importance of these variables and effect on the scope management. A statistical tool which is SPSS was used to analyze the data collected. The findings indicated that there are positive and significant relationship between the stakeholder's involvement, project manager skills, top management strategy and project scope management. Moreover, these variables can be further tested to evaluate their effect on government projects. The findings also confirmed that stakeholder's involvement, project manager skills, top management strategy has positive effect on the project scope management. Finally, the study suggested numbers of others influencing factors for future study on the project management practices of government projects.

## INTRODUCTION

Project scope management terminology is defined as the "element developments of project plan to recognize the work components and work outcomes of the projects, the activates that must be done, the financial and non-financial resources consumed, and the excellence standards to be maintained" (Bredillet and Pinto, 2007). This definition has encompassed the main elements in the project scope which can be linked with the variables of this study. Furthermore, the Project Management Institute has defined project scope management as a process that contains the procedures which confirm that project will be completed as planed and intended if it is only comprises the required work (PMI, 2018).

Therefore, the both definitions agreed that there is a mutual linked between stakeholder's involvement, project manager skills, top management strategy and project scope management. The link between variables can be summarized in table 1 below.

**Table 1** Link between the Variables

Area link	PMI	Pinto
<b>Project Manager Skills</b>	process contains the procedures which confirm	the activates that must be done
<b>Stakeholder's Involvement</b>	the required work	work outcomes of the projects
<b>Top Management Strategy</b>	as planed and intended	the excellence standards to be maintained

## LITERATURE REVIEW

This paper aimed to test the relationship between stakeholder's involvement, project manager skills, top management strategy and project scope management in order to know the importance of these variable on the scope project management process. There are link between these variables which can work as a tool to completed project as planed and intended. This link can be seen in the definition of the project scope management and its process.

Project scope management process has six main steps on scope management which are plan the scope, collect requirement, define the scope, create work breakdown structure, validate scope and control scope (PMI, 2018). These steps are highly connected with the variables and can be explained as following paragraphs.

First, stakeholder's involvement is the variable in the scope management that represent the required work components and work outcomes where it is defined also as collection of people who own a knowing consideration in the success of project to obtain an impact over its successful targets or outcome (Turner, 2014). This variable can be recognized in to two main phases of the project scope management which are “collect requirement” and “define the scope” (Alrubaiei, Abdul Nifa and Musa, 2018). In planning the scope phase, the scope management plan is generated in this phase, whereby it documents, define and describe the intended project scope as well as specifying how the scope will be validated and controlled (Nath and Momin, 2014).

Second, the project manager skills which is responsible to carry out the full cycle of the process and complete the project as intended and successfully (Short, 2016). The skills of project manager also encompassed scope project management process from the responsibility and management dimension. Moreover, the project manager has to responsibility to make sure that scope project management is collected, documented and managed in this stage with one key goal which is accomplishing project objectives (PMI, 2013).

Third, top management strategy works to complete their obligations and responsibilities to make sure accessibility of crucial support to the project managers in order to help the practitioners to manage and lead the projects with more passion which is linked directly with first phase in the process of scope management as mentioned previously (Ahmed, Mohamad and Hmad, 2014). Table 2 below illustrates the relationship between theses variables.

**Table 2** Interlink of variables with project phases

Variables	Link- phase
<b>Stakeholder's Involvement</b>	Define the Scope Collect Requirement

<b>Project Manager Skills</b>	Plan the Scope Collect Requirement Create Work Breakdown Structure Validate Scope
<b>Top Management Strategy</b>	Plan the Scope

### **Project Scope Management Phases**

There are six main steps in the project management process which are; plan the scope, collect the requirement, define the scope, create work breakdown structure, validate scope and Control Scope. The steps below explain each phase.

#### **Plan the Scope**

The scope management plan is generated in this phase, it documents, define and describe the intended project scope as well as specifying how the scope will be validate and control (Nath and Momin, 2014).

#### **Collect Requirement**

The project stakeholder's requirements and specifications are collected, documented and managed in this phase with one major goal which is achieving project objectives (PMI, 2013). The list of project requirements is generated through an in-depth investigation process with clear target of including and not leaving hidden items. Moreover, it works to minimize unexpected changes – scope modification / scope creep -in the project life cycle (Poddar, Qureshi and Syme, 2002).

#### **Define the Scope**

A comprehensive full description of the project and its key required deliverables are the main purpose of this phase with indicating what can and cannot be achieve and accomplish in the project (PMI, 2013).

#### **Create Work Breakdown Structure**

The project components are separated into essential elements aiming to ensure that all required deliverables are involved, and these elements will represent the scope of work in a hierarchical breakdown structure (Khan, 2010; Shirazi, Kazemipoor and Tavakkoli-Moghaddam, 2017). Moreover, this step makes scope creep is mostly to be minimized at low level through liking cost, time, and resources requirements with each deliverable with clear framework and charts (Poddar, Qureshi and Syme, 2002).

#### **Validate Scope**

The project quantified deliverables are checked and tested based on the project defined and planed requirements (Khan, 2010). Also, it focuses

primarily on project owner acceptance and it is confirmed only when the project owner formally accepts authoritatively all the project deliverables (Nath and Momin, 2014).

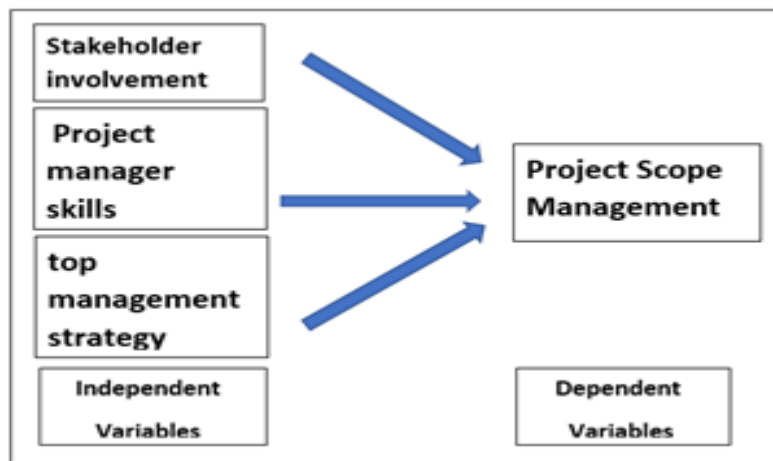
### Control Scope

The changes and modifications in the project scope are evaluated and monitor based on the scope baseline in this phase (PMI, 2013). Moreover, any new or additional requirements inquired by the project owner is evaluated based the project scope (Nath and Momin, 2014).

Accordingly, this paper has explored the link between the variables and project scope management to verify the type of the relationship and nature of effects.

### Conceptual model

The conceptual framework delivers an illustration on how the stakeholder's involvement, project manager skills and top management strategy which discussed are related to project scope management. The variables which defined in this paper are independent and dependent variable. The tested independent variables in this study are; Stakeholder involvement, Project manager skills, and Top management. The dependent variable is the Project scope management. Figure 1 below indicates the conceptual framework applied in this paper.



**Figure 1** Conceptual framework

## RESEARCH QUESTIONS AND RESEARCH OBJECTIVES

The inspiration of this paper is to understand the variables relationship with project scope management. Meanwhile, the field of project management is very competitive and technology adoption is still highly dynamic, hence there is a need for extensive studies in this field.

For that reason, this paper attempts to answer two research questions;

1. What is the relationship between “Stakeholder Involvement”, “Project Manager Skills”, “Top Management” and “Project Scope Management”?
2. How do these variables effect the project scope management process?

Consequently, the objectives of this study are as follows;

1. To investigate the relationship between “Stakeholder Involvement”, “Project Manager Skills”, “Top Management” and “Project Scope Management”.
2. To recommend clauses for project scope management based on research outcomes.

## RESEARCH METHODOLOGY

This paper applied a quantitative method, in which the data was collected based on survey approach through questionnaires to address on the target respondents. This study utilizes the survey method which is mostly quantitative in nature which completed based its advantages on such type of research (Johnson and Onwuegbuzie, 2004). It is a paper, which analyses selected variables as the independent variable while project scope management is analyses as the dependent variable.

By implementing a quantitative analysis, this study exposes substantial information on the current status and the impact of stakeholder involvement, project manager skills on project scope management, via selected samples form ministries project government employees in the Sultanate of Oman. Statistical data analysis is conducted, and the results will be become the evidence to the validity of the proposed relationships of the constructs. The paper has two main hypothesis which been test by using survey method.

H1- Stakeholder involvement, Project manager skills, and Top management are related to the project scope management.

H2- Stakeholder involvement, Project manager skills, Top management have positive effect on the project scope management.

### Sampling

The random sampling is applied where every individual in the population has an equal probability of being selected and this type is recommended by Creswell (2014). This sort of sampling provides each units in the targeted population an equal and fair probability of getting into the sample; and all selections are independent of one another (Kothari, 2004). The table 3 below specifies the sample size according to the ministry.

**Table 3** Sample size according to the ministry

Units	Total sample	Sample collected
Only government units working in project field	247	213

### Respondents

Government employees in the project units, namely as project employees were chosen as the respondent's due to the fact, they are involved in the operation of the project management in the government units. Also, the current paper employed these people as the sources of data to be in line with previous study conducted on the Sultanate of Oman. As such, they are considered key employees in the project departments government's units and familiar with the projects and their job is critical to the performance of the project department.

### Design of Questionnaires

The questionnaire was structured and divided into two sections:

Section I – was designed in order to obtain the demographics information of the government unit and the respondents.

Section II – items related to the determining variables regarding stakeholder involvement, project manager skills, top management strategy and project scope management.

A five-point Likert scale was applied in this study for the purpose of ranking the statements. A five-point Likert scale is considered a balanced scale because there is an equal number of positive and negative options (Bhattacharjee, 2012). This scale is represented in the form of 1-5 which are strongly disagreed to strongly agree. The questionnaire has been tested and confirmed for its reliability and validity prior to data collection. All questions have been adopted from previous published thesis as shown in Table 4 below.

**Table 4** Sources of the items for variables included in the questionnaire

No	Variables	Sources
1	Stakeholder involvements	Perovic (2015)
2	Project manager skills	Gherbal (2015)
3	Top management strategy	Jiang (2010)
4	Project Scope management	Millan (2016)

The quantitative analysis is conducted via the systematic SPSS software (Version 24).

## RESULTS AND DISCUSSION

Correlation testing is a statistical analysis tools that works in statistical way to measure and analyse the degree or extent to which the two variables vary with reference to each other and it finds out the direction of relationship between them not the cause and effect of the variables. (Harrysingh et al, 2017). For the first hypothesis and based on the correlation test it has been founded that Stakeholder involvement, Project manager skills, Top management strategy are correlated with the project scope management which indicted that theses variables have relationship. All the relationship between the variables is significance based at the 0.05 level (2-tailed)\*\*.

This confirms that project scope management (mean C) can be affected by the level of the “Stakeholder Involvement” (mean A), Project Manager Skills” (mean B), “Top Management Strategy” (mean D) performance in the process. Table 5 below indicates this relationship.

**Table 5** Correlation test results

		meanC	meanA	meanB	meanD
meanC	Pearson Correlation	1	.217**	.174 <sup>b</sup>	.293**
	Sig. (2-tailed)		.002	.014	.000
	N	201	201	201	201
meanA	Pearson Correlation	.217**	1	.148 <sup>b</sup>	.072
	Sig. (2-tailed)	.002		.036	.309
	N	201	201	201	201
meanB	Pearson Correlation	.174 <sup>b</sup>	.148 <sup>b</sup>	1	.108
	Sig. (2-tailed)	.014	.036		.126
	N	201	201	201	201
meanD	Pearson Correlation	.293**	.072	.108	1
	Sig. (2-tailed)	.000	.309	.126	
	N	201	201	201	201

Correlation is significant at the 0.05 level (2-tailed).\*\*

Correlation is significant at the 0.05 level (2-tailed).<sup>b</sup>

From other side, and to indicate the results of the second hypothesis. The test also showed that they have a positive direction relationship between “Stakeholder Involvement”, Project Manager Skills”, “Top Management Strategy” and “Project Scope Management”. Based on the regression analysis the “Project Scope Management” can be modified by independent variables by 13% based on results of R squared). The following Table 6 indicted the valid relationship between the variables.



**Table 6** Regression analysis tests

**Model Summary<sup>d</sup>**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.217 <sup>a</sup>	.047	.042	.528	.047	9.796	1	199	.002
2	.260 <sup>b</sup>	.067	.058	.523	.021	4.358	1	198	.038
3	.371 <sup>c</sup>	.138	.125	.504	.070	16.051	1	197	.000

a. Predictors: (Constant), meanA

b. Predictors: (Constant), meanA, meanB

c. Predictors: (Constant), meanA, meanB, meanD

d. Dependent Variable: meanC

Based on the results of the tests, it is recommended to introduce new clauses in government project system (Tendering regulation) to ensure effective involvement of the stakeholders, project manager and top management in project scope management. The next Table 7 summarized the suggestions.

**Table 7** Suggested new clauses in government project system

Variables	Suggested clauses in government project system
<b>Stakeholder's Involvement</b>	Involvement of stakeholders in defining the Scope and Collect Requirement phases.
<b>Project Manager Skills</b>	Involvement of project manager in all phase. Especially in Planning the Scope, Collecting Requirement, Creating Work Breakdown Structure and Validating the Scope.
<b>Top Management Strategy</b>	Involvement of top management in Planning the Scope phase

To sum up, these variables can be used as an effective process to manage the project scope management for their connection and effect.

## CONCLUSION AND SUGGESTION FOR FUTURE RESEARCH

The most obvious findings emerge from this study is that there is a positive relationship of the influencing variables which are Stakeholder involvement, Project manager skills, Top management on the project scope management. The second finding of this study is that “Stakeholder

involvement” and “Top management strategy” are significant variables related to the project scope management. Moreover, it shows the importance of these variables in project management area.

The findings also indicated that the government units need to give more attention in project scope management. Therefore, the units need to enhance their project manager skills and top management strategy and required a policy and regulations when utilization the project scope management process.

Despite that, this study has a number of limitations and can be useful for future research. There is a need to investigate the other factors such communication, specifically within the project team, as proposed by Nawi, Nifa and Ahmed (2014). Since this paper focused on government units only, future studies could look into private units working in the Sultanate of Oman in the government project management.

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