# The Impact of Stakeholders on the Achievement of the Projects Within Malian Firms: Case of SODEMA

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#### Abstract

This study highlights the impact of stakeholders on achievement of projects. The recommendations should be used as guideline for Malian projects.

The quantitative and qualitative methods, primary data collected by questionnaires and interviews are used. Secondary data are gotten from articles, journals and online resources. The research framework was analyzed using simple regression models. Hypothesis test is adopted to accept or reject the hypotheses formulated in this research. Excel software have been used to perform regression statistics, predicting with the regression equation, Hypothesis test for correlation, ANOVA table and Regression equation plot.

The results suggest that stakeholders have significant impact on achievement of projects. Stakeholders have a positive impact on achievement of projects is valid hypothesis. This study makes several contributions to research and theory of key stakeholders and achievement of projects. A greater understanding of stakeholders and achievement of projects provided further investigation of the relationship between of stakeholders and achievement of projects. This model can be used by other project for its achievement. Through the use of this model, project can quickly identify stakeholders requiring special and urgent attention.

SODEMA industry needs improvement in communication with stakeholders. The theoretical model developed in this study is applicable in practice.

Keywords: stakeholders, achievement of projects, competition, simple regression

#### 1. Introduction

#### 1.1 Introduce the Problem

Globalization, deregulation and trade liberalization have increased the vulnerability of national economies to international competition. Mali has several competitive problems, liberalizing its economy. Malian manufactured goods must compete with products of other countries with fully developed industrial economies. The competitive advantage is not driven exclusively by proper marketing, good investments, employee skills, cheaper factors of production, but also by the unique quality of goods and services, hence the need for a project. In this sense, project is equal to innovation. Many Malian projects did not reach their original objective because of mismanagement of stakeholders.

# 1.2 Importance of the Problem

A project involves several actors called stakeholders. A stakeholder is a person, a group of people or an organization that impacts or may be impacted by the project. It can be external or internal to the company in charge of the project. Key project stakeholders are the sponsor; the customer; the project manager; the project team; the management of the company. In this context a project is a temporary enterprise with the aim of creating a unique good or /and service.

A stakeholder has expectations and / or interactions on the project. It can affect or be affected directly or indirectly, positively or negatively, by one or more aspects of the project. Stakeholders will always be involved in the project, they have interests, rights to be asserted (legal, moral or property) and have an influence on decision-making. They will have an impact on the success of the project or will bring expertise and contribute to this success. Many projects are endangered because interaction with stakeholders is non-existent or inappropriate. Studies have shown

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that three-quarters of projects fail to achieve their objectives for multiple reasons including lack of stakeholder buy-in. A study on the impact of stakeholders on the success of a project in Mali is not an option but an imperative. Is good interaction with stakeholders an effective way to a successful project?

This study is focused on the current impact of stakeholders on achievement of project in Mali. Its overall objective is to highlight the benefit of interaction with stakeholders for successful project.

It has following specific objectives:

- To obtain the effects of stakeholders on achievement of projects in Mali:
- To obtain a theoretical model of stakeholders on achievement of projects for Mali;
- To specify and test hypotheses from the research model of stakeholders and achievement of projects which is derived from their theoretical foundations,
- To obtain stakeholders knowledge with specific characteristics of Mali generated new knowledge.

The research questions, Question1: «What are stakeholders? »; Question2: «What is project? » will be answered.

## 1.3 Relevant Scholarship

In the review of the relevant literature of stakeholders and project, it has been found that different researchers adopted different definitions and frameworks based on their own understanding and research objectives.

The use of the term 'stakeholder' has been traced to as early as 1708 to mean "a person entrusted with the stakes of bettors" (Bryson, 2003: 3). However, Freeman's 1984 book, Strategic Management: A Stakeholder Approach popularized the term by challenging businesses to consider all stakeholders, rather than just shareholders. Freeman defines a stakeholder as "any group or individual who can affect or is affected by the achievement of the organisation's objectives" (1984: 46). Although the roots of this concept are in business literature, the definitions have evolved due to its use in public administration and natural resource management. Now, the use of "the term 'stakeholder' emphasises the 'stake' or interests of the parties in a process" (Hermans, 2005: 20). A stakeholder can be defined as "any group of people organised, who share a common interest or stake in a particular issue or system" (Grimble and Wellard, 1997: 175). Integrating stakeholders is a way of accommodating conflict points and claims. A classical criticism of a broad definition is that "virtually anyone and anything can 'affect or be affected' by the decisions and actions of a business enterprise" such that "expansive views of relevant 'stakeholders' tend easily to become so broad as to be meaningless" (Orts and Strudler, 2002: 218). However, when inclusivity is a goal, then a willingness to take an expansive view of stakeholders is required. As definitions of stakeholders specifically differ in how inclusive they are, Bryson asserts that in public management, the term must be used in a more inclusive way to enact more democratic principles (2004: 22). In community development practice, stakeholders have been described as 'victims' or 'gainers' in relation to a project to reflect who might benefit or be at risk. Other terms that have developed common usage are 'participant', 'involved party', 'recipient' and 'responsible party'. In order to maintain conceptual clarity, we will focus on the differentiation of stakeholders as a subset of actors, whereby stakeholders are specifically related to an issue or problem that can be addressed in transdisciplinary research. Once a problem or issue is specified, then stakeholders can be identified out of the known actors.

"A project is a temporary organization that is created for the purpose of delivering one or more business products according to an agreed Business Case." (PRINCE2Training Manual A common sense approach to learning and understanding PRINCE2).

According to the PMBOK (Project Management Body of Knowledge) 3rd edition, A project is defined as a "temporary endeavor with a beginning and an end and it must be used to create a unique product, service or result". Further, it is progressively elaborated. What this definition of a project means is that projects are those activities that cannot go on indefinitely and must have a defined purpose.

According to ISO 10006: 2003, a project is a single process, consisting of a set of coordinated and controlled activities, with start and end dates, undertaken to achieve a goal that meets specific requirements such as time, cost and resource constraints. According to the standard Afnor X50-106"a project is a specific approach that allows you to structure methodically and progressively a future reality. A project is implemented to develop a response to the need of a user, a customer or a clientele. It implies an objective, action to be undertaken with defined resources within given deadlines. Other definition according to the standard Afnor Z67-100-1: "A project is a set of activities that are supported, within a given time and within the limits of the resources allocated by people assigned to it in order to achieve defined objectives". According to ISO 10006: 2003, a project is a single process, consisting of a set of coordinated and controlled activities, with start and end dates, undertaken to achieve a goal that meets specific requirements such as time, cost and resource constraints. Since 2002, the X50-115 standard has retained

the definition of ISO 10006: 1997, which defines the project as "a set of coordinated and controlled activities with start and end dates undertaken to achieve objective in accordance with specific requirements". ISO X50-106: "Scientific approach that allows to structure methodically and progressively a reality to come", "a project is defined and implemented to develop a response to the needs of a user or a clientele, and involves a objective and actions to be undertaken with given resources". Standard X50-105: "A project is a specific approach that allows us to structure methodically and progressively a future reality. A project is implemented to develop a response to the need of a user, a customer or a clientele. It implies an objective, action to be undertaken with defined resources within given deadlines "."A sequence of unique, complex and connected activities, with the goal of achieving a goal. This must be done within a time frame, a budget and in compliance with specifications (Wiley and Sons,2000). Stakeholder theory is a useful framework for analyzing the behavioral aspects of the project management process, particularly the complicated process of project management within the Department of Defense (DOD) (JS Sutterfield, 2006).

In contemporary management theory and practice the rise and role of stakeholders as major players in organizational dynamics are widely recognized and recorded (Taylor & Francis, 2003). Today almost every project takes place in a context where stakeholders play a major role in the accomplishment of the tasks. Often the project is sensitive to actions and decisions taken by the stakeholder (Taylor & Francis, 2002). A class of research that focuses on defining what constitutes project success includes categories concerning stakeholders, timeline, project size or type (J. Shenhar, D. Dvir, O. Levy, and A. C. Maltz, 2001). Project success can be achieved through the good performance of project managers in the project (Pheng, L. S and Chuan, Q. T., 2006). Baker et al defined project success as "If the project meets the technical performance specifications and/or mission to be performed and if there is a high level of satisfaction concerning the project outcome among: key people in the parent organization, key people in the client organization, key people in the project team and key users or clientele of the project effort, the project is considered an overall success(Baker, B.N., Murphy, D.C. & Fisher, D., 1983). Mitchell et al. proposed a classification of stakeholders based on power to influence, the legitimacy of each stakeholder's relationship with the organization, and the urgency of the stakeholder's claim on the organization). Turner et al. have developed a process of identification, assessment of awareness, support, and influence, leading to strategies for communicating and assessing stakeholder satisfaction, and determining who is aware or ignorant and whether their attitude is supportive or opposing.

The role of project sponsors is often overlooked. For every stage of a project, there are key executive sponsor behaviors that can make the difference between success and failure (TimothyJ.Kloppenborg and Debbie, 2015) and when the project sponsorship role is better understood, the whole team benefits (Schibi, O. & Lee, C. ,2015).

1.4 Hypotheses and Their Correspondence to Research Design

The following hypothesis is proposed:

H: stakeholders have positive relationship with achievement of project

The following sub-hypotheses are proposed:

H1: project sponsor has a positive relationship with achievement of project;

H2: The customer has a positive relationship with achievement of project;

H3: The project manager has a positive relationship with achievement of project;

H4: The project team has a positive relationship with achievement of project;

H5: The management of the company has a positive relationship with achievement of project;

H6: The users have a positive relationship with achievement of project;

H7: The providers have a positive relationship with achievement of project;

H8: The public powers have a positive relationship with achievement of project.

Based on the literature review, informal discussions with stakeholders in Mali, academicians, political and economic actors, research objectives, 5 research questions were proposed.

They are listed as follows: Question1: What are stakeholders? Question2: What is project? Question3: What kind of theoretical model of the impact of stakeholders on project needs to guide Malian project managers? Question4: How can this model of the impact of stakeholders on achievement of project be demonstrated in practice? Question5: What is the extent of the relationship between stakeholders and achievement of project?

# 2. Theoretical Model

Research Question 4: "What kind of theoretical model for implementing stakeholders and achievement of project

should be developed to guide Malian enterprises. This model is based on the assumptions that the stakeholders constructs have positive effects on achievement of project. The stakeholders constructs are: the sponsor; the customer; the project manager; the project team; the management of the company. These assumptions must be confirmed by questionnaire survey data in the Malian company SODEMA. Based on these assumptions, a theoretical model for implementing stakeholders and achievement of project has been developed. In this study, the stakeholders are the independent variables (causes) and achievement of project is the dependent variable (effect).

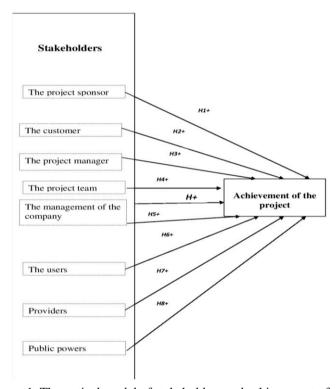


Figure 1. Theoretical model of stakeholders and achievement of project

Source: primary data

# 3. Methodology of Case Study

The fourth research question is "How can this stakeholders implementation model be demonstrated in practice?" In fact, the model was developed to know how the Malian stakeholders impact the achievement of projects.

# 3.1 A Brief Introduction of SODEMA Mosquito Pomade Project

The case study was conducted in a SODEMA small-size industry. It is located in the zone industrielle of Bamako in Mali. It produces soap and several products which can be used in the cosmetic industry. The company has a functional organizational structure. It developed ten projects from 2005 to 2019.

### 3.2 Data Collection

Primary and secondary data sources are used.

# 3.2.1 Primary Data Sources

# a) Interviews and observations

Interviews were conducted with internal and external stakeholders as well as observations.

# b) Questionnaire survey

# stakeholder Survey (independent variable)

The research question "What is the extent of the relationship between stakeholders and profit achievement of project?" has been answered. Stakeholder constructs are used for following statements: "Dear stakeholders, can you give us a minute to note the SODEMA level of communication with stakeholders"?

We will use those informations to help us to improve our ability to deliver projects in the future. Respondents to these items were used five-point Likert format for ten projects (observations) each lasting one year from 2005 to 2019 ranging from 1 to 5 as follows: 1 to 2 Very dissatisfied, 2 to 3 dissatisfied, 3 to 4 satisfied, 4 to 5 Very satisfied.

# Project achievement Survey (dependent variable)

The organization has to rate its project achiement for each project during 10 years from 2005 to 2019.

The rating scale is as follows: 1 to 2 Very dissatisfied, 2 to 3 Dissatisfied, 3 to 4 Satisfied, 4 to 5 Very satisfied.

#### 3.2.2 Secondary Data Sources

Textbooks, academic articles and journals related to the implementation of key success factors have been used. A number of online resources have been used to obtain information for the literature review.

## 3.3 Case Study Questions

Only one company, SODEMA has been selected to lead this case study.

Three questions are addressed in this study, which are listed as follows:

Question 1: What are the strengths of the current implementation of stakeholders and achievement of project?

This is a descriptive question on the strengths of the stakeholders and achievement of project approach compared to the stakeholders and achievement of project Model. After the comparison, the strengths of the implementation of the stakeholders and achievement of project of the company could be identified.

Question 2: What are the weaknesses of the key success factors and profit performance of the company?

Current practices of stakeholders and achievement of project were compared to the stakeholders and achievement of project Implementation Model. Thus, weak areas could be identified. Weaknesses could be used by the company as opportunities to seek improvement actions and develop an improvement plan.

Question 3: What type of improvement can the company implement in its entirety?

#### 3.4 Data Analysis

The research framework of this study was analyzed using simple regression model. We can write down a model of the following form:

 $Yi = \beta 0 + \beta 1xi + ei$ ; where  $\beta 0$  the interceptand  $\beta 1$  is the *slope* of the line. We assume that the error terms have a mean value of 0.

Table 1, a simple linear regression is carried out to estimate the relationship between a dependent variable, Y, and a single explanatory variable, x, given a set of data that includes observations for both of these variables for a particular population. We would carry out a simple linear regression analysis to predict the value of the dependent variable, Y given the value of the explanatory variable, Y and stakeholders, the independent or explanatory variable, Y are trying to predict the value of achievement of project. Data are collected at the projects (observations) within small size industry SODEMA.

Table 1. Correlation and regression, data for Excel output

Data	X-Data	Y-Data	
Observations	Avarage rates ofstakeholders	Achievement of projects rates	
Obs 1	3,75	4	
Obs 2	3,86	4	
Obs 3	4,95	5	
Obs 4	3	3	
Obs 5	3,91	4	
Obs 6	3,8	4	
Obs 7	2,97	3	
Obs 8	2,56	2	
Obs 9	4,23	4	
Obs 10	4,89	5	

Source: primary data

## 3.4.1 Results

Excel software have been used to perform the test, the p-value analysis, Correlation coefficient R, Coefficient of

determination R-squared, Standard error, Slope, P-value.

Table 2. Regression statistics

Observations	10
Correlation coefficient (r)	0,973
Coefficient of determination (r-squared)	95%
Standard error of the estimate	0,226

Source: Excel output

Table 3. Regression equation

Slope	1,135
Intercept	-0,505
Regression equation	AP = -0.505 + 1.135  (SH)

Source: Excel output

Table 4. Predicting with the regression equation

X value	1,135		
Confidence Level	95%		
Predicted Y value	0,783		
Confidence Interval	0,783	<u>+</u>	0,610
Prediction Interval	0,783	<u>+</u>	0,802

Source: Excel output

Hypothesis test for correlation

Null hypothesis: slope=0(no correlation)

Level of significance= 0,05 t-statistic computed= 11,8514

P-value=0,0000

Decision: Reject null hypothesis Conclusion: correlation exists

Table 5. ANOVA table

ANOVA	SS	df	MS	F	F crit
Regression	7,1905	1	7,1905	140,4562	5,3177
Error	0,4095	8	0,0512		
Total	7,6000	9			

Source: Excel output

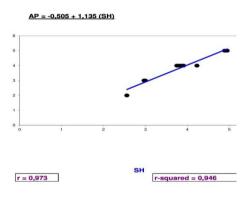


Figure 2. Regression equation plot

Source: Excel output

## 3.4.2 Results and Discussion

In this section, we discuss sample and data collection procedures and operational measures of variables used in the study as well as the statistical tests used to evaluate the multidimensionality of stakeholders and its relationship with achievement of project.

## **\*** The correlation coefficient

A single summary number that tells you whether a relationship exists between two variables, how strong that relationship is and whether the relationship is positive or negative

#### **\*** The coefficient of determination

A single summary number that tells you how much variation in one variable is directly related to variation in another variable.

## Linear regressions

A process that allows you to make predictions about variable "Y" based on knowledge you have about variable "X".

#### **\*** The standard error of estimate

A single summary number that allows you to tell how accurate your predictions are likely to be when you perform Linear Regression.

# Slope

To measure the change in y, for one unite change in x,

#### P-value

To measure the probability we would be making a mistake to reject null hypothesis.

# Hypothesis testing

Hypothesis test involves testing the null hypothesis of: H0: There is no relationship between X and Y versus the alternative hypothesis H1: There is some relationship between X and Y.

#### Standard errors

Standard errors can also be used to perform hypothesis tests on the coefficients.

#### **Results interpretation**

# Correlation coefficient R

The measure of degree of relationship between stakeholders and achievement of project is 0.973, this relationship is strong.

# ❖ Coefficient of determination R-squared

95% of the variability in achievement of project can be explained by the regression equation.

# Standard error

The measure of dispersion of data around the regression line is 0, 226.

# Slope

A one unites change in stakeholders results in 1,135 changes in achievement of project.

#### P-values

The probability we would making a mistake to reject null hypothesis is 0, 000.

#### **Decision**

We reject null hypothesis, H1+ is valid hypothesis. H, H1, H2, H3, H4, H5, H6, H7, H8 are valid hypothesis.

#### Conclusion

We conclude that correlation exists between stakeholders and achievement of project. The results of the simple regression analysis imply that stakeholders have a significantly positive relationship with achievement of project.

## 4. Recommendations/Suggestions

- communicating with the stakeholders is a key factor in the successful completion of a project;
- Identify your stakeholders (sponsor, client(s), project team members, suppliers, sub-contractors...)
- Ensure the adherence of all stakeholders;
- Determine the nature and involvement of each stakeholder;
- Communicate with stakeholders throughout the project;

# 5. Contributions / Limitation and Future Research Perspectives

This study contributes to enriching research and theory on stakeholders and achievement of project. A good understanding of stakeholders and achievement of project derived from the relationship between stakeholders and project achievement was facilitated. As a limitation, the case study was run in one company. Strictly speaking, the generalization of its conclusions is limited. Enterprises have different characteristics, different stories, different technologies, different maturity of stakeholders and project achievement and employ people with different levels of education ... Different enterprises have to use different approaches to stakeholders and project achievement. There is no universal standard for implementing this model. In prospect of a new research the case study will be directed in different types of enterprises. It will be more interesting to include in the model moderating and mediating variables.

## 6. Conclusion

In conclusion, the main purpose of this research study was to investigate the relationships between stakeholders and achievement of project as perceived by managers in Malian small size industry SODEMA.

A number of conclusions have been obtained from this research. Thus, stakeholders theoretical model related to Malian firms has been developed.

First, the instruments for measuring stakeholders and achievement of project are reliable and valid, and can be used by other researchers to test the effects of stakeholders on achievement of project.

Second, several conclusions have been obtained from testing the theoretical model: (1) H: stakeholders have positive relationship with achievement of project, (2) project sponsor has a positive relationship with achievement of project, (3) customer has a positive relationship with achievement of project, (4) project manager has a positive relationship with achievement of project (5) project team has a positive relationship with achievement of project(6) management of the company has a positive relationship with achievement of project(7) users have a positive relationship with achievement of project(9) providers have a positive relationship with achievement of project(9) public powers have a positive relationship with achievement of project.

Third the stakeholders and achievement of project implementation model developed in this study is applicable in practice. This model can be used by Malian firms to improve their stakeholders and achievement of project implementation efforts. This stakeholders and achievement of project implementation model can be used to self-assess firms' project improvement efforts and measure their progress over time.

Through using this model, firms can quickly identify which stakeholder urgently need attention. Thus, the resources can be allocated more wisely and more effective improvement plans can be formulated.

Based on the evaluation, the strengths and weaknesses of the firm's stakeholders and achievement of project implementation were identified. The firm's current stakeholders and achievement of project practices showed that it did not implement the full package of the stakeholders and achievement of project implementation model.

The weaknesses of the firm's stakeholders and achievement of project implementation and profit performance provided opportunities for the firm to improve its stakeholders and achievement of project implementation. Based on these weaknesses, the firm's targeted improvement area of project achievement, and the firm's available resources, an improvement plan was formulated. The firm's deputy general manager agreed that the firm would implement this improvement plan in practice.

Thus, it can be concluded that this implementation model can be used to identify strengths and weaknesses therein, and assist the firm in formulating the improvement plan. Therefore, the implementation model developed in this study is applicable to this firm.

Firms' weak areas can always be identified by comparison with this implementation model. Weak areas can be used by firms to further improve their stakeholders and achievement of project implementation.

Thus, the conclusion obtained from the case study can be generalized to other firms in Mali. Therefore, the stakeholders and achievement of project implementation model developed in this study is applicable to all Malian firms. Through using this model, firms can quickly identify which areas urgently need improvement. Thus, resources can be allocated more wisely. In fact, stakeholders and achievement of project implementation is a systematic approach. Different firms have different characteristics, histories, and backgrounds; adopt different technologies; have different stakeholders and achievement of project implementation maturity; serve different markets with different products; and employ people from different education levels. Different firms should adopt different approaches to stakeholders and achievement of project implementation on the basis of their own situations. No universal standard of stakeholders and achievement of project implementation exists. Firms should

not follow the practices presented in this implementation model strictly; when they start using it, they should combine their uniqueness with the practices of this model and consequently develop their own models and ways to excellence. Through this, their own models can suit their situations better. Their own measurement systems can better fit their situations. It should be noted that top management commitment is the most important prerequisite; without it, it is impossible to successfully implement this model in practice.

Implementing this model does require patience, tenacity, and commitment from people at every level in firms. It will take some time to see the effects of implementing this model.

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