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The Degree of Consistency Through Adopting SMART Objectives for Succession of Feasibility Studies to Infrastructure Projects

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Abstract

The process of formulating the basic strategies in a construction project must go through a set of stages. The desired objectives in feasibility studies should be highlighted to ensure that the packages of the infrastructure projects are moving smoothly in terms of the desired goal. In order to meet ambition for the long term in infrastructure projects, it is required to adopt the five pillars of SMART for rectifying the paths of feasibility studies. The study is a summarizing of fifteen elements that could have negative impacts on outputs of feasibility studies. The designed questionnaires have already been distributed via two stages to the experts/consultants in project management and others. 63 questionnaires were collected to find the negative impact of the elements, and the second stage included 89 participants for measuring their responses about the extent to which previous studies that were prepared over the past five years matched the concept of SMART-objectives. Based on the theoretical principle through analyzing the responses/opinions of participating experts, it was found that the feasibility studies for infrastructure projects obtained the following percentages: 46.07%, 41.57%, 28.09%, 22.47%, and 22.47%. This reflects that the objectives of the infrastructure project were specific, measured, achievable, relevant, and Time-Bound) in sequence consistent with the mentioned percentages. For the improvement outcomes of feasibility studies for infrastructure projects, that required a clear and invaluable link among all feasibility studies and the concept of applying the SMART-five pillars.

Keywords: Feasibility; Smart Objectives; Infrastructuer Project; Construction Management.

1. Introduction

Infrastructure and construction projects suffer during the planning stages from a group of factors that later cause many problems to the contract parties. Many of these problems are related to preparing feasibility studies in the best possible way. Feasibility studies in the infrastructure projects are considered a crucial factor in the construction industry as a whole. The construction project management team needs a set of clear objectives that are closely linked to each type of feasibility study in order to reduce problems that may lead to stopping the project later or cause delaying during the implementation stage. Preparing a series of feasibility studies is an essential and indispensable part during the early stages of a construction project in order to obtain impressive results for the project [1].

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The infrastructure project, regardless of its size, cost, or complexity, requires that stakeholders in the project consider all possible details that can be included in the feasibility studies without neglecting any of them [2]. Specialists and consulting engineers' resort to making the appropriate decision so that they can answer investors' questions about the feasibility of the project. Then knowing by consultants systematically and scientifically how feasible this project will be from an economic and social perspective. Therefore, when all parties finally agree to the project, this reflects the feasibility of the project and its importance to the local population in the long term [3].

Developing an effective system for evaluating the project's feasibility helps ensure high project performance from the early stages and later stages [4]. In infrastructure projects, the main concern of the project owners is to accurately define the main objectives. Then, to know whether the project will achieve the purpose of its establishment in terms of the economic or profit aspect, as well as the service aspect for the beneficiary communities. Identifying a set of criteria is essential to assessing the success or failure of a project. The economic and profitable return or the number of beneficiaries of the service project may be among the most important criteria that contribute to the success of the project, without neglecting the environmental criteria as well. These criteria are linked to objectives, so that projects have a quantifiable economic or social return or projects with a non-quantifiable return [5].

It requires a comprehensive analysis of the project, relying on a set of assumptions about the possibility of unforeseen changes that may affect the project's economic feasibility, such as inflation and the increase in the costs of some investment or operational components of the project. The level of services that the project may provide later is also a basic factor in the comprehensive analysis of the variables that may affect the achievement of the project's objectives. Since the basic principle for knowing the success of the project is to ensure the achievement of the main objectives. Therefore, adopting the five pillars of SMART, which are: Specific, measured, achievable, relevant, and time-bound [6]. That led to making the project objectives more accurate and clearer for the project owners and the project management team [7].

By adopting and developing a good tool such as SMART's pillars can assist the project management team to achieve feasibility studies in the best manner. The link of SMART objectives with feasibility study for any project is required to reflect the nature of the project and its major goals. Therefore, the process of formulating a set of SMART objectives for each type of feasibility study requires exceptional effort from the construction management team to ensure the expectations of the parties to the contract are met in the future. There is no doubt that the feasibility study preparation team and project managers need to adopt a methodology that has been followed when working on preparing the project objectives from the beginning and that can be updated during the project life cycle.

2. Research Methodology

In this research, a methodology was adopted that relies heavily on literary surveys, previous studies mentioned in the previous section, and the experiences of engineers and experts in the field of supervision, design, and implementation in infrastructure projects. Therefore, the following points and Figure 1 illustrate the methodology that was adopted in preparing and completing this research.

- Identify the major component with a negative impact for achieving the succession of feasibility studies to infrastructure projects.
- Rearrange these major components.
- Design and preparation of the required questionnaires that meet with the research lines.
- Distributing the closed questionnaire to the target groups of experts, consultant engineers, engineering supervisory committees, construction managers, project managers, engineering managers, and planning managers. Then collecting the outcomes of the questionnaires.
- Analysis and ranking the major component with a negative impact on the succession of feasibility studies to infrastructure projects.
- Getting the final outcomes from targeted experts and consultants to determine the suitability of feasibility studies for the previous elements and principal of SMART objectives that were prepared during the past 5 years for infrastructure projects.
- Discussion of the results.
- Reaching the final conclusion.

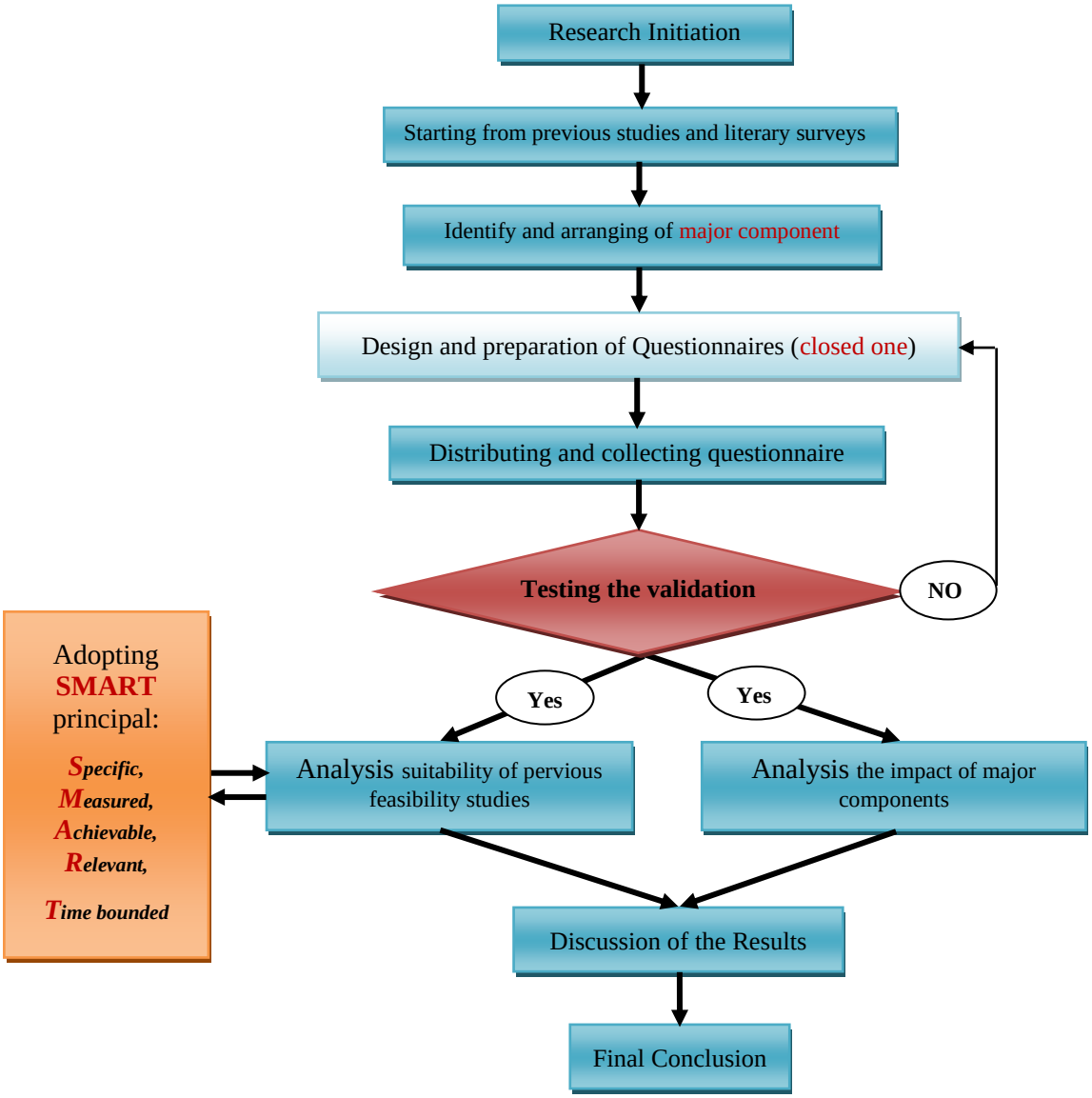

Figure 1. Flowchart of the methodology

3. Literature Review

Previous literature reviews were completed as part of the study. The previous studies of the literature surveys were described in this section. To avoid many risks occurring in projects, it has become an urgent necessity to take care of the steps of preparing feasibility studies, as they are an important factor in this aspect [1]. Because feasibility studies are considered the basis for many infrastructure projects, they had to be worked on with the help of a group of techniques. Adopting the smart objectives in terms of preparation feasibility study was enhancing the decision-making process for contractual parties [8, 9]. To realize a project with high sustainability, it is necessary to know the nature of the project in terms of the group of factors affecting this project in the preparation stages, including feasibility studies [10]. The project parties must know the reasons that lead to the projects not achieving their desired objectives for improving economic values in infrastructure projects in particular. To reduce the challenges and factors influencing the stages of preparation feasibility studies that need to be developed, some of these solutions have to define projects' objectives in the best ways and be easy to understand from project partners. The best infrastructure projects are those that reflect objectives linked to economic and social values and as part of the objectives designed in the feasibility study preparation stages [11]. Using modern and advanced technologies is considered among the priorities that must be taken into consideration in construction projects in Iraq to achieve a balance in the project in terms of costs and implementation time [12, 13].

Many studies have indicated that there are factors that have a negative impact on the preparation of feasibility studies at different stages of the project's life, the most prominent of which are the use of modern technologies, the budget availability, and adopting the innovative methods for analysis input/output of the project to reduce costs [14]. As well as the factor of experience in the field of preparing feasibility studies of the investments in construction industries, this is one of the major factors that affect the feasibility study. Many researchers, while analyzing the factors affecting feasibility studies, have pointed out factors such as slow routine, administrative complexities, lack of experience, and the absence of a clear scientific analysis of the project's inputs and outputs, especially with regard to

infrastructure projects [15, 16]. To ensure the success of investment projects and infrastructure projects, we need to diagnose the problems associated with them in any particular country or region, as taking the opinions of experts from engineers, designers, consultants, and project parties contributes fundamentally to knowing the root causes behind the weakness in preparing the objectives of feasibility studies [17, 18]. Absence of the following factors while working on feasibility studies: comprehensive monitoring systems, accompanied by proper planning, saving the necessary time during the planning/design stages lead to negative outcomes from any project [19-21].

Many studies have focused on identifying the features that affect the success of the project, all of which are linked to the stages of feasibility studies, including social, environmental, technical, legal, and marketing [22–24]. Some researchers have partly taken into consideration setting the goals and their suitability for each type of feasibility study [25–27]. Many studies have confirmed that setting goals clearly and objectively achieves the economic, employment, and service results expected from the project, especially infrastructure projects [28–30]. Also, some researchers have confirmed that using SMART objectives technology will make businesses and investment projects more feasible [31–32]. In the long term, the results that can be achieved can be seen when the logical analysis of feasibility studies and the extent to which they achieve the desired objectives are taken into consideration at the beginning of the project preparation stages [33-35]. The objectives have characteristics such as being specific, more measurable, achievable, realistic, relevant, and timed (SMART) [38–40]. That will make the process of preparing feasibility studies with a higher existential content reflected later on the quality of infrastructure projects in the implementation, operation stages and providing the best functional service to the community [41-43]. Using advanced techniques in the project preparation stages and knowing the degree of project complexity are increasing the understanding level from the team of project clients. During the stages of preparing feasibility studies for projects, it is necessary to adopt techniques such as SMART in order to link the inputs and outputs of the different types of feasibility studies [44-46]. For reducing the risks and increasing the chances of the project's economic and social success, the project objectives must be designed in terms of being consistent with the principle of SMART-pillars to be truly smart [47-48].

Typical feasibility studies contribute to the best possible management of the three construction constraints. Cost, time-line, and quality [43-45]. Due to the importance of infrastructure projects in societies, it is necessary to summarize all the reasons that may lead to their deterioration, especially those related to the method of their preparation, as well as the analysis and referral of the project and then its implementation and operation. These mentioned stages must be linked to clear, explicit, and implementable objectives in the feasibility study stages of infrastructure projects [49–51].

By reviewing the most recent previous studies, the current study summarizes the importance of knowing the factors that affect feasibility studies to be part of the designed questionnaire [52, 53]. This study also seeks to determine the extent to which previous projects conform to the concept of the five pillars that make up the SAMRT-objectives in feasibility studies for infrastructure projects.

4. Design of the Questionnaires

4.1. Preparation and Design of the Questionnaires

During the process of the research study, the preparation and design of the closed questionnaires were done to achieve the targeted requirements to complete the study from the initiation points. In the designed questionnaire parts reflected all the data required to attain the study and were based on: (Professional information about the background and experiences of the people involved, then classifying and arranging the required data related to major components with a negative impact for achieving for succession of feasibility studies to infrastructure projects, and the data that shows the extent to which previous feasibility studies conform to the concept of SMART objectives when adopting SMART principal).

4.2. Sample Size and Professional Characteristics

The professional criteria are the major way, as mentioned here to determine the consultants and experts who are working in the construction industry sector in the study area. To obtain comprehensive and accurate answers from experts, professionals with extensive experience in preparing feasibility studies were targeted, with the sample size being 63 and 89, respectively.

In this study, the researchers focused on the importance of knowing the professional and academic backgrounds, current job level, and number of years of experience, in addition to the work of the participants in the questionnaire for both stages at the same time in the total cycle of the questionnaires distribution and collection later. The following Table 1 shows the statistics for each one of the targeted characteristics.

4.3. Tabulation of Major Components

The second step is for reaching an acceptable degree of consistency by repeating it to achieve the best degree by adopting a formula (Cronbach's alpha). The values of both reliability and term of validity were in the range above 0.7 for the two stages of questionnaires. For achieving exactly without the variation on coefficient by (α) ranging from 0 to 1. For the first stage on processing the number of 63 collected questioners with 15 as the number of questions to cover the major components, the both reliability and validity values were very good and above 0.85. From the second stage after collecting the questionnaires from targeted peoples for test reliability and validity of questionnaires process on

SMART objective on feasibility study. For the second stage, the values were very good and above the range of more than 0.85 for covering 5 questions related to the SMART principle, which were collected from 89 professional participants in different types of infrastructure projects.

The tabulation of major components was used to reflect how these major components may impact the succession of feasibility studies to infrastructure projects in Iraq negatively during the project life cycle. Table 2 shows these major components (Component with Negative Impact) to be under the code of C-NI.

Table 1. Illustrate the levels of Professional characteristics

Title of target variables	Level of Category	F (Frequency)	Percentage (%)	% in term of accumulative
Level of Age	25-35	7	8.43%	8.43%
	36-45	14	16.87%	25.30%
	46-51	30	36.14%	61.45%
	More than 51	32	38.55%	100.00%
Educational Qualification	Diploma study	4	4.82%	4.82%
	Bachelor Study	17	20.48%	25.30%
	Master's degree	40	48.19%	73.49%
	Doctorate degree	22	26.51%	100.00%
Career guidance via years of experience	5-10 years	2	2.41%	2.41%
	11-15 years	8	9.64%	12.05%
	16-20 years	27	32.53%	44.58%
	more than 21 years	46	55.42%	100.00%
Employment Level	Level of Consultants	2	2.41%	2.41%
	Engineering Manager (EM)	22	26.51%	28.92%
	Construction Manager (CM)	23	27.71%	56.63%
	Project Manager (PM)	25	30.12%	86.75%
	Levels of Planner and Senior Engineer and environmental engineer	11	13.25%	100.00%

Table 2. Illustrate the group of elements that have an expected negative impact on the preparation of the various series of feasibility studies related to infrastructure projects

No.	Code	Component with a negative impact (C-NI) for achieving for succession of feasibility studies to infrastructure projects
1	(C-NI) 1	Component misperception of the sequence of feasibility studies in construction projects
2	(C-NI) 2	Component of lack of experience in preparing and implementing the outputs of feasibility studies
3	(C-NI) 3	Component of poor communication with all levels of consultants and Relevant departments during the series preparation period succession of feasibility studies.
4	(C-NI) 4	Component of legal restrictions
5	(C-NI) 5	Component of project degree of complexity
6	(C-NI) 6	Component of the routine in obtaining approvals for the outputs of feasibility studies
7	(C-NI) 7	Component related with availability of data and information necessary to prepare feasibility studies, especially those related to the relevant departments
8	(C-NI) 8	Component related with availability of the necessary technology & Advanced programs to conduct tests and investigations at the project site before and during the preparation of feasibility studies
9	(C-NI) 9	Component related Schedule for preparing and implementing feasibility studies to be completed
10	(C-NI) 10	Component related the availability of required funds to complete feasibility studies according to the time limit
11	(C-NI) 11	Component related to organizing and issuing the required reports for each study, from the initial feasibility studies to the final detailed reports by the relevant consulting bodies.
12	(C-NI) 12	Component related to overlapping and conflicting powers of government agencies to approve the outcomes of feasibility studies
13	(C-NI) 13	Component related to related to the nature of the infrastructure project
14	(C-NI) 14	Component associated with determining and preparation the best construction method statements for the purpose of implementing infrastructure projects & taking into account the factor of modernity and continuous development
15	(C-NI) 15	Component associated with control and supervision of the process for preparing final project documents in the planning and preparation phase of the project.

5. Analysis of the Study

For this section, the analysis of the study was done to obtain valuable and comprehensive knowledge, which starts with the ranking of the major components and the negative impact of the succession of feasibility studies. Then making the analysis for the second stage of the study to recognize why the series of feasibility studies for infrastructure projects are still not meeting the targeted and design objective that through the SMART approach.

5.1. Analysis the Major Component

To achieve the best results, it is necessary to know which of the factors or components, namely in this study, have the most negative impact so that workers in the construction industries in Iraq can overcome them. Therefore, at this stage of the study, the negative impact of the elements was analyzed according to the opinions of experts, consultants, and groups participating in the questionnaire. A scale consisting of: within maximum value 5 for measuring the high level of impact (in terms of the extreme) and (1) for covering: No Impact in terms of negative consistently. the following term, which reflects the measures of impact through their importance them by: (1- No Impact-Negative Consistent, 2- Slightly Impact-Negative Consistent, 3- Moderate Impact-Negative Consistent, 4- Normally Impact-Negative Consistent, and 5- In the Extreme Impact-Negative Consistent). The ranking of the results is done by using RII (Relative importance index) according to the views of 63 targeted participants (Table 3).

$$\text{RII} = \sqrt{\frac{\sum Wi, Xi}{AN}} \quad (1)$$

Where: Wi: Refers to the weight assigned to the ith level of the scale of Likert; Xi: Refers the frequency of respondents who chose the ith level of the Likert scale; A: Refers to the highest level on the scale of Likert; N: Refers to all the number of respondents from targeted persons.

Table 3. Illustrate Analysis the major component and their impact by using Relative Importance Index and the ranking level

Code of Major component	ΣW-total	AN	RII	%RII	Rank Level
(C-NI) 1	243	315	0.771429	77.1%	
(C-NI) 2	252	315	0.8	80.0%	
(C-NI) 3	288	315	0.914286	91.4%	Rank 3
(C-NI) 4	237	315	0.752381	75.2%	
(C-NI) 5	290	315	0.920635	92.1%	Rank 1
(C-NI) 6	242	315	0.768254	76.8%	
(C-NI) 7	237	315	0.752381	75.2%	
(C-NI) 8	289	315	0.91746	91.7%	Rank 2
(C-NI) 9	243	315	0.771429	77.1%	
(C-NI) 10	236	315	0.749206	74.9%	
(C-NI) 11	242	315	0.768254	76.8%	
(C-NI) 12	248	315	0.787302	78.7%	
(C-NI) 13	286	315	0.907937	90.8%	Rank 4
(C-NI) 14	270	315	0.857143	85.7%	
(C-NI) 15	284	315	0.901587	90.2%	Rank 5

5.2. Analysis by adopting SMART Approaches

Through the main section in the second stage of the questionnaire, it is to know the experiences of people working in the infrastructure projects sector and the nature of the jobs they held, so the last two main jobs were chosen for the 89 participants in the questionnaire during the five years. Where in Table 4, Job 1 & Job 1 refer to the first and second jobs, respectively, and (T-N) refers to the total number of people who continued in both jobs one and two. The experiences table reflects the importance of the necessary experience for individuals, institutions, or consulting offices that prepare feasibility studies. Table 4 reflects this information.

Table 4. Illustrate Experience Level of the Participants (For Previous Five Years)

Job 1	Number of years in first job	Job 2	Number of years in first job	(T-N)
Senior Engineers	2	Construction Manager	3	23
Engineering supervisor	3	Engineering Manager	2	14
Project Manager	1	Construction Program Manager	4	8
Designer & Consultant	1	Consultant team leader	4	7
Technical engineering consultant	3	Engineering Manager	2	14
Planner and Consultant	1	Economics, Financial Business Consultant	4	16
Environmental engineer	2	Senior Environmental engineer	3	7

To ensure knowledge of the extent to which feasibility studies for the previous five years, at least, conform to the SMART concept, or the achievement of SMART goals in other words, meaning that the elements of each of the previous feasibility studies for infrastructure meet or do not meet (Specific, Measured, Achievable, Relevant, Time Bounded) according to views of 89 responses of participants through the experienced engineers, experts, consultants, and project managers, as mentioned previously. The extent to which any of the five mentioned objectives were compatible or not was relied upon using a percentage through the scale of consistency through measuring the responses of "(A)%: Completely inconsistent with the objective, (B)%: little matched with objectives level consistent, acceptably consistent with objectives (C)%, moderately consistent with objectives (D)%, well-consistent to objectives (E)%, very well-consistent with objectives (F)%, and perfectly measuring of consistent to objectives (G)%. Table 5 shows a summary of the results in terms of the compatibility of the previously prepared studies with the five principles of SMART according to the views of the participants in the second part of the questionnaires.

Table 5. Illustrate the percentages of experts' opinions on the extent to which feasibility studies for the previous five years conform to the five SMART pillars

Suitability of five SAMRT objectives for Various types of feasibility studies according to responses of targeted participants	% (A)	% (B)	% (C)	% (D)	% (E)	% (F)	% (G)
According to your experience, when feasibility studies are prepared, do you think that the objectives are **Specific** in infrastructure projects (to what extent was that)?	5.62%	35.96%	**46.07%**	3.37%	5.62%	1.12%	2.25%
According to your experience, when feasibility studies are prepared, do you think that the objectives can be **Measured** (to what extent)?	7.87%	**41.57%**	32.58%	10.11%	5.62%	1.12%	1.12%
According to your experience, when feasibility studies are prepared, do you think that the objectives can be **Achievable** (to what extent)?	1.12%	7.87%	5.62%	21.35%	24.72%	**28.09%**	11.24%
When preparing feasibility studies, do you think that the objective can be **Relevant** (to what extent?)	5.62%	11.24%	10.11%	15.73%	21.35%	**22.47%**	13.48%
When preparing feasibility studies, do you think that the objective is under the term of **Time Bounded** (to what extent?)	12.36%	21.35%	22.47%	21.35%	10.11%	7.87%	4.49%

Figures 2 to 6 provide a clear comparison in terms of the extent to which previous studies atch the five pillars of SMART in terms of experts' answers in his aspect.

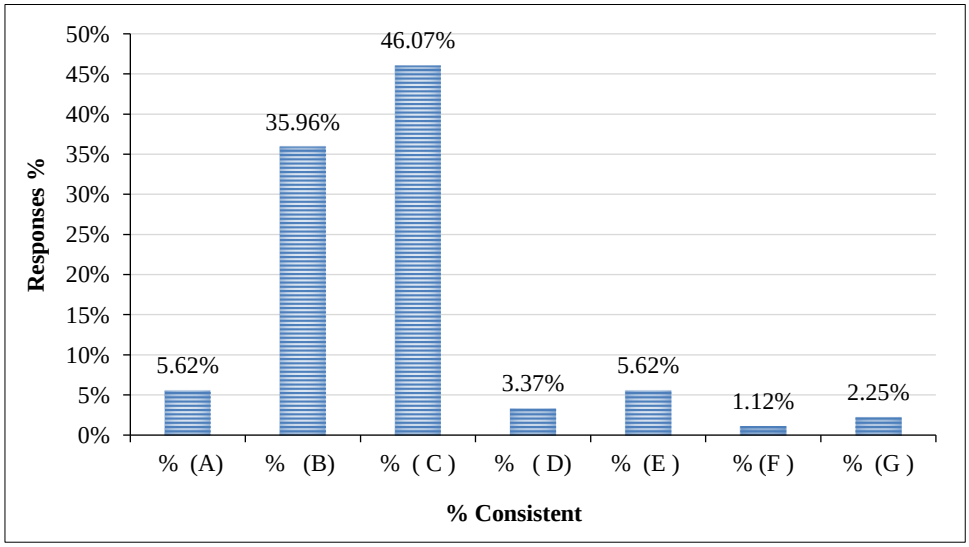

Figure 2. Shows measuring the 1st pillar SPECFIC

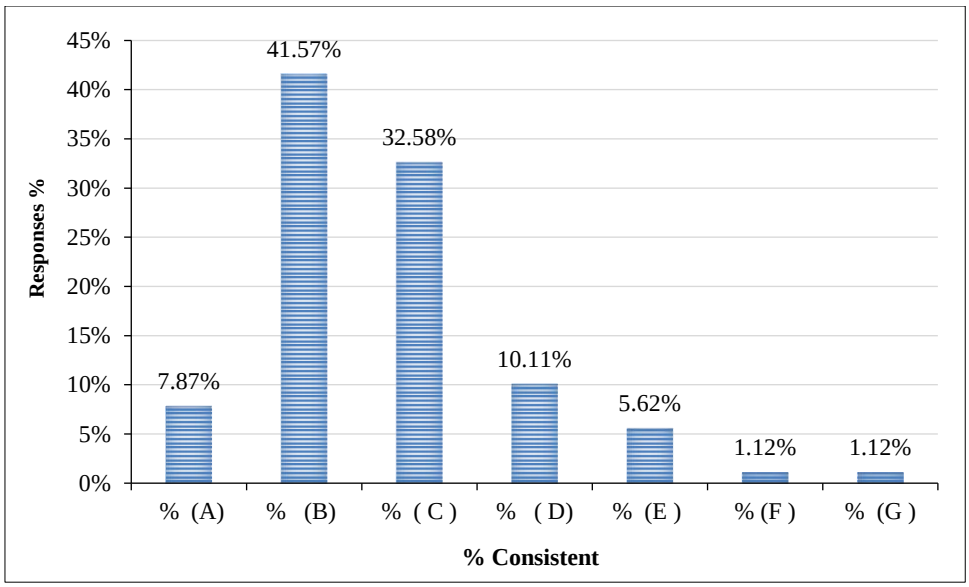

Figure 3. Shows level of Measured as 2nd pillar from SMART

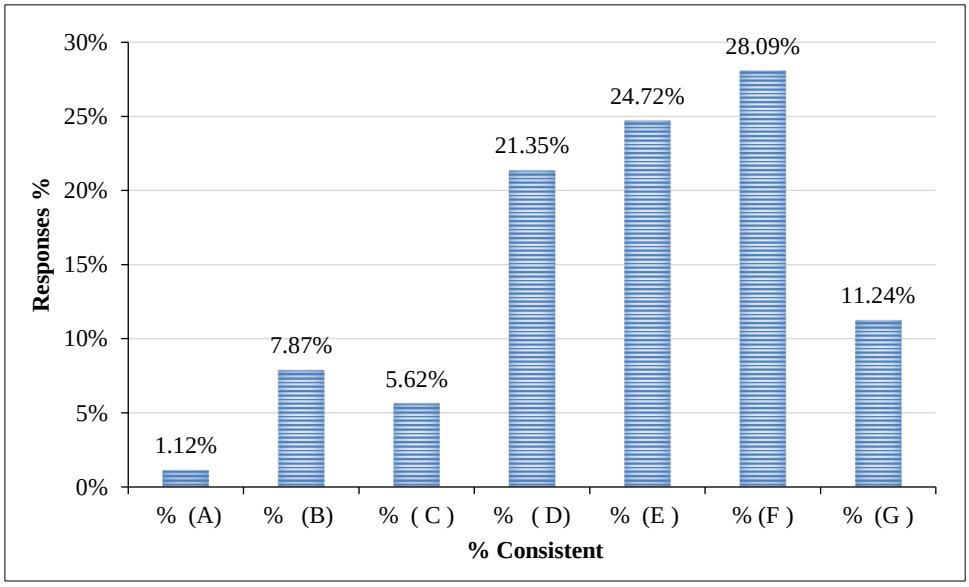

Figure 4. Shows measuring the 3rd pillar Achievable

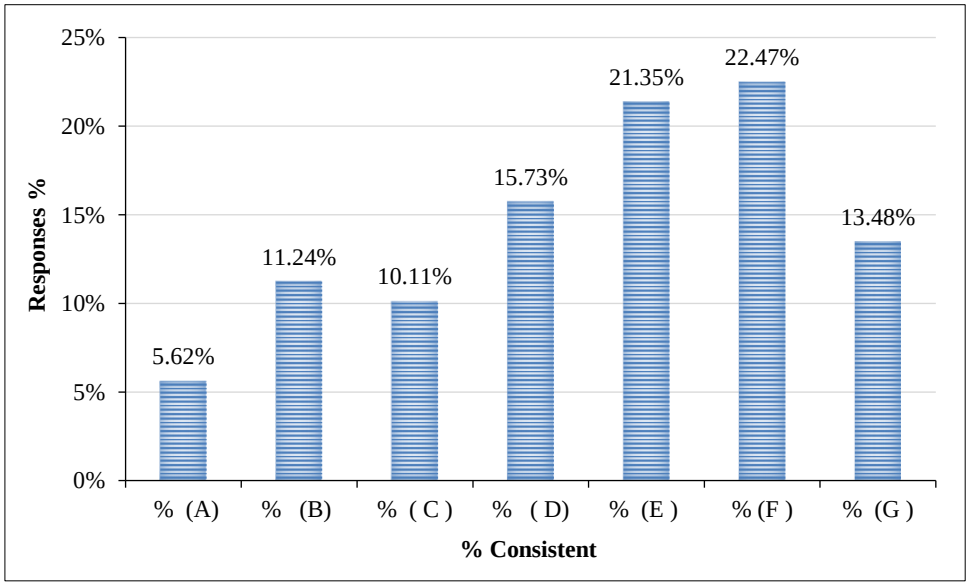

Figure 5. Shows level of Relevant as 4th pillar from SMART

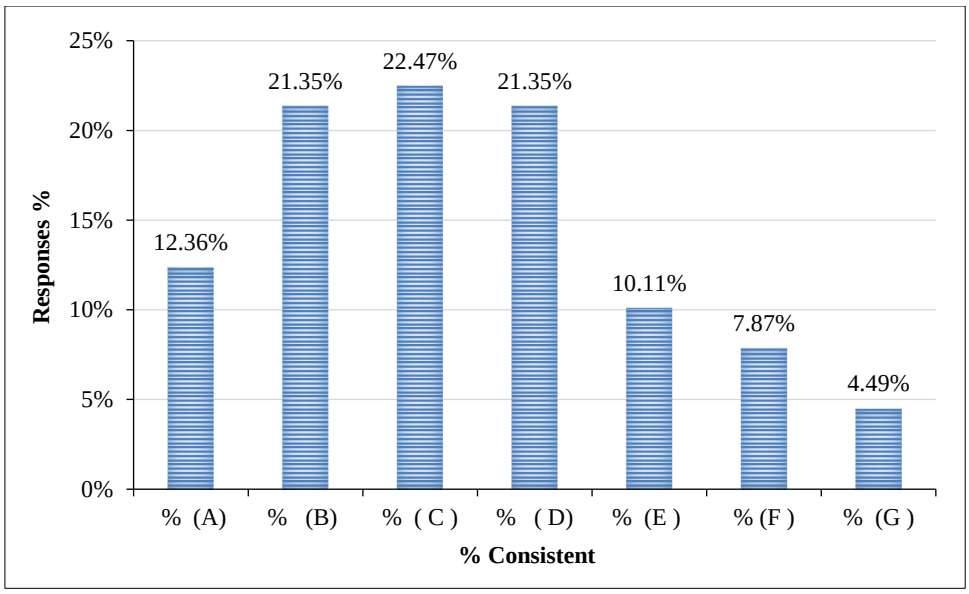

Figure 6. Shows measuring 5th pillar of SMART (Time Bounded)

6. Discussion

To achieve the highest degree of consistency between the various types of studies and their outputs with SMART objectives, the principle of consistency will be effective as it contributes later to the smooth delivery of data that can be transformed into information and then knowledge in the context of the work of any infrastructure project. Therefore, creating a protocol can link the two main parties (the major and the consultants team) in the project during the preparation, planning, and design stages and before the project is referred. These outputs, linked together, will contribute to research among the main construction parties of the project, especially in the first stages mentioned above, that are compatible to the best possible degree with the concept of SMART objectives. Figure 7 clarifies the reciprocal relationship and contributes to raising the degree and level of consistency between the project parties. It creates servers between them that help interpret and then match the outcomes of each feasibility study in accordance with the five SMART pillars.

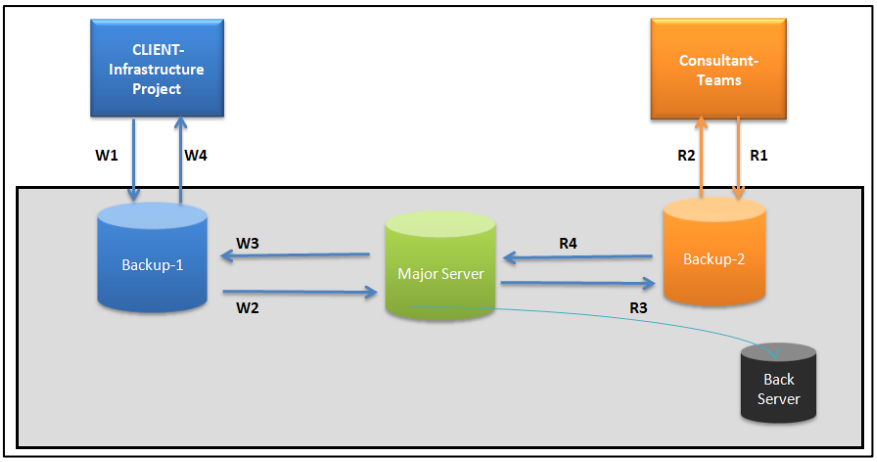

Figure 7. Displays the diagram of the reciprocal relationship and contributes via the raising the degree and level of consistency between the project parties through servers.

In Figure 7:

W1: Write Request/Inquiry
W2: forward request
W3: Action write to complete
W4: Forward action to final complete
R1: Read Request/inquiry
R2: Forward request to specific sector or team
R3: Action from the team and response
R4: Final return to respond

The results shown by the research are discussed in terms of the first axis of the study, which focuses on knowing the elements with a negative dimension on preparing feasibility studies in infrastructure projects so that the feasibility

studies achieve the goals they are intended for or designed for. After identifying and arranging the elements in the first axis, we move to the second axis of the study, which is the extent of conformity and suitability of feasibility studies for infrastructure projects to the five component concepts of SMART. From the summary of the results, it can be concluded that it is important for all feasibility studies, during the period of their preparation and subsequent evaluation, to be linked to the concept of SMART objectives, so that each type of feasibility study is (environmental, economic, technical, financial, legal, and social) so that the five objectives (SMART) must be applied to them. The following chart summarizes the importance of the interconnection between each type of study mentioned with the five pillars (Specific, Measured, Achievable, Relevant, Time Bounded). Figure 8 includes a group of arrows in different colors that indicate the importance of each arrow belonging to any of the five smart pillars applying to each type of feasibility study in infrastructure projects.

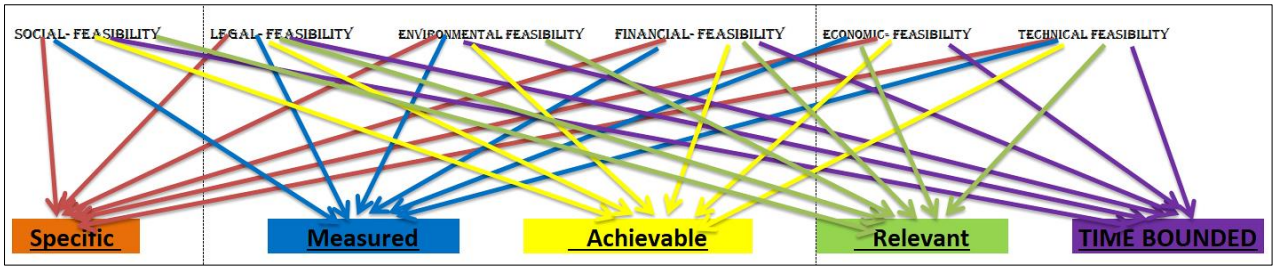

Figure 8. The importance of applying and linking each type of feasibility studies with the five pillars of SMART

6.1. Major Findings

1st Major Finding: suggestion of the possible solution to overcome the negative factors. The results of the study in its first section showed that there are a group of factors that have a negative impact on the effectiveness of the outputs of feasibility studies for infrastructure projects, the first of which was (92.1%) the degree of project complexity as well as (91.7% the use of advanced technology), and the rest of the factors obtained a percentage close to those indicated. It is noted that the factor of the degree of project complexity will require efforts from the work team to produce documents that reflect the feasibility of the project. Also, to overcome this factor, it will be necessary to increase communication between consultants on the one hand and project owners on the other hand. There is no doubt that using the best technology leads to the best results. The study also showed that factors related to the nature of the project and the size of financial investments can be overcome by establishing mechanisms that facilitate the work of investors and reduce government routine. This in turn is greatly reflected in the performance of the project, especially infrastructure projects later, and leads to achieving its goals in the stages of preparing feasibility studies. In addition, optimal planning, using the best experts, and reducing obstacles related to local laws will all contribute significantly to the success of the service project for local communities.

2nd Major Finding: According to the research findings and the best lesson for learning is to adopt a model database for infrastructure projects, as is practiced in some Middle Eastern countries. Working on developing the analytical skills of engineers in departments related to the inputs and outputs of feasibility studies and working on building the capabilities of less experienced engineers in this field. To ensure the best performance of infrastructure projects, the best advanced technological methods are used in all stages of the service project's life, not just in the planning stages. It is worth noting that the concept of objective paths is not limited to its use in determining the objectives of the detailed study, but it is necessary to use it early in writing the initial feasibility studies for infrastructure projects.

7. Conclusion

The focus of this study was on finding the most important components and factors that play a negative role in terms of influencing the preparation of feasibility studies, that is, the extent to which feasibility studies achieve the objectives that were part of the objectives of the parties to the contract. It has become seriously clear that feasibility studies for infrastructure projects are considered supplementary documents and not essential documents, meaning that they are among the requirements for documents that employers, especially government agencies, want. It usually does not consist of a series in which the outputs of each study are part of the inputs of the study of next feasibility that follow in terms of chronological and logical sequence. It was clear during the analysis stages of the study that the negative components were most influential: poor communication, routine in obtaining full approvals about the final documents related to each kind of feasibility, availability of the necessary technology, components of the kinds and nature of the infrastructure project, professional supervision, control, and final evaluation of the outcomes of each type of feasibility study, as well as the legal restrictions. All of these elements need to develop a set of methods that contribute to overcoming them in order to achieve realistic outcomes from feasibility studies for infrastructure projects.

In the second stage of the study, the five basic components were dealt with to be smart goals that can be applied to a series of feasibility studies in construction projects in general and the infrastructure projects targeted by the study in particular. Therefore, while discussing the main lines of the study results, the researcher proposed a diagram that shows the extent of interconnection that must be achieved in each type of feasibility study. In other words, to adopt the concept of SMART goals, each type of study must have outcomes that meet the five pillars (more Specific, can be Measured, and Achievable, Relevant with the main goals of clients from different aspects, the governmental and private clients, and it should be within time Bounded). At the last point, as here, the designed and desired objectives are required to link with each succession of feasibility studies and to be part of the inputs of these studies and meet the outputs.

8. Declarations

8.1. Author Contributions

Conceptualization, R.T.H.; methodology, R.T.H. and Y.S.N.; software, R.T.H.; validation, R.T.H., A.H.H., and Y.S.N.; formal analysis, R.T.H.; investigation, R.T.H. and A.H.H.; resources, R.T.H., A.H.H., and Y.S.N.; data curation, R.T.H.; writing—original draft preparation, R.T.H.; writing—review and editing, R.T.H. and Y.S.N.; supervision, R.T.H. and Y.S.N. All authors have read and agreed to the published version of the manuscript.

8.2. Data Availability Statement

The data presented in this study are available in the article.

8.3. Funding

The authors received no financial support for the research, authorship, and/or publication of this article.

8.4. Institutional Review Board Statement

Not applicable.

8.5. Informed Consent Statement

Not applicable.

8.6. Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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