ROLE OF INVESTMENT DECISIONS ON SUCCESS OF MINISTRY OF SCIENCES AND TECHNOLOGY PROJECTS IN IRAQ

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Abstract- A good Investment decisions are always the result of high intention, intelligent direction and skillful execution; it represents the wise choice of many alternatives. A good decision is the process of optimally achieving a given objectives. The critical role of investment decisions techniques in promoting good investment projects making is stressed throughout series; indeed it is the main driving force behind the series. Each element of investment project from developing a strategic together in the final investment decision making stage is to achieve the selection of the best project. Good investment decision making should not rely on chance but on a full and informed consideration of all the relevant factors influencing the outcome. Choosing the appropriate decision making tool which gives guidance on economic-based on investment decisions making. If all significant factors in the project appraisal can be satisfactorily expressed in monetary terms, then benefit – cost considerations are the most appropriate basis for decision making. The benefit of such decision making is that it is founded. The aim: This research aiming to test the relation and effect between investment decisions and success of public investment Projects of Ministry of Sciences and Technology (MoST) in Iraq. This study emphasizes the investment decisions are required to create a good Investment Projects for Ministry of Sciences and Technology in Iraq. To solve study's problem and achieve of its objectives, researchers adopted Hypothesis "There is significant effect between the investment decisions and Public Projects investment success". This research depended on financial and statistical tools in analysis; (Arithmetic Means, Percentage, and Standard Deviations for measuring levels of importance, correlation coefficient and simple linear regression for testing the hypotheses of the research). Then the study leads to many results, the most important are that the Ministry of Sciences and Technology believes that good investment decisions enhance the Projects investment success, there is a strong homogeneous between these variables and that indicates the sample ,and Ministry of Science and Technology adopt the philosophy of its leaders must makes a good investment decisions and focus on the Effectiveness index to achieve successfully investment Projects, also depending on the conclusions the study concluded a set of recommendations, the most important is The Ministry of Sciences and Technology should place more prominence on intelligence-related information for investment decision makers; however, a greater dispersion across all levels is required.

Keywords- Investment Decisions, Managing of The Project, Public Projects Investment.

I. THE RESEARCH METHODOLOGY

Problem of the study: The success become critical case particularly in the period changes for all organizations, leaders will face a lots challenges when they try to make Investment Projects. So investment decisions makers must have good tool to create the success of public investment Projects, and we know that successful investments projects require diligent management.

2. The Hypothesis: the researcher adopted main Hypothesis "There is significant effect between the Investment Decisions and Projects investment success" Researchers will test these hypotheses:

1. H0: There is no significant effect between the Investment Decisions and Projects investment success.
2. H1: There is significant effect between the Investment Decisions and Projects investment success.

3. Sample of Study: The Sample applied (Ministry of Sciences and Technology) in Iraq.

4. Study Period: The period of study is combined (2007-2014) these years. The period of collecting data from Iraq is finished within five and halve month from 25-4-2014 to 10-10-2014.

5. Tools of the Study: The researchers used Financial Tools and Statistical Methods Analysis, program (SPSS) to describe and analysis of data; also prepare analytical reports of questioner's results: Reasons of Selection the sample (Ministry of Sciences and Technology - MoST):

1. Ministry of Sciences and Technology works in different sectors (Industrial, Agricultural, Transport & Communication, Building & Services), and involved many investment projects in different fields.
2. (MoST) continues to work collaboratively with most of Ministries in Iraq and to conduct research and development in constructive endeavors to improve living standards of all Iraq's people.

Table No. (1) (A - Projects quantifiable (Tangible outputs)

No	The Sector	Name of the Project	Project Cost	Implementation period
1	Transport & Communication	Electronic Ministry	5000000000	7
2	Industrial	Manufacturing of the Tooth Rebuilding Material	1160000000	9
3	Industrial	Purification of the Iraqi Soil	1400000000	9
4	Agricultural	Fish breeding and propagation technique using floating cages in Iraq	1050000000	4
5	Industrial	Supervisory control systems and the collection of information SCADA	2655000000	5
6	Industrial	Establishment of Special Laboratory in the Studies of Development Nanomaterial	2750000000	5
7	Building & Services	Development laboratories bacteriological examinations of water using modern technologies	1000000000	4
8	Transport & Communication	Generation station to receive satellite images	150000000	7
9	Industrial	Establishing the Materialism Base of the Iraqi Wind Energy Project	1250000000	6
10	Industrial	Building material base for laboratories solar thermal- Project hybrid power (Shihabi City)	1500000000	4

Annual report for Ministry of sciences and Technology (2011-2013)

II. THEORETICAL FRAMEWORK OF THE STUDY:

First: Investment Decisions: Decision-Making is central to human activity, "good" decision-making starts with a consecutive, purposeful, strategic-thinking process. This site offers practical information on this success science process because nothing succeeds sweeter than yet another success. The two basic issues associated with an investment decision are its feasibility and its desirability. Feasibility refers to the ability to actually access the necessary capital and complete the project. Clearly an investment could promise highly desirable levels of returns, but simply be infeasible in terms of the initial cash flow requirements the simplest illustration of a budget constraint. Alternatively, an investment may be affordable and completely feasible, but the returns could be so low as to make the investment alternative unattractive. Investments can be evaluated in the context of both returns and cash flow feasibility.

Investment Decision Measuring: There are many elements that contribute to a wise investment decision. Most techniques use cost-benefit analysis (CBA) to measure each proposed project. Economic impact calculations such as return on investment (ROI), internal rate of return (IRR), and/or net present value (NPV) are then applied to compare the value or contribution of each of the alternatives. The measurable costs and benefits derived through (CBA) Previous cost-benefit methods for evaluating investments dealt with discrete projects.

Second: The Success of Investment Projects: In all good projects, the leadership and participants are took time to reflect upon successes and failures. In particular, it is important to determine whether the defined project was successfully completed - both in terms of the most recent definition and against the original intentions. The fundamental things that should be clearly agreed at the commencement of a project. They form the basis upon which the project will be defined and measured. That means they also form the basis upon which the Project Manager will be judged.

Third: Criteria of Investment for Public Sector: Criteria of Investment for Public Sector are (* Cost – Benefit Analysis or Benefit-Cost Analysis,* the cost of Capital in Public Sector,* the opportunities Cost of Capital and the required *Rate of Return,* Risk and Cost Capital,* Common Discount Rate for public–Sector Project * Cost-Effectiveness Analysis). The researchers selected the **Benefit/Cost Analysis Index** to measure the Public Projects Investment for the Ministry of Sciences and Technology (MoST) in Iraq.

Benefit - Cost Analysis: Method of the goal, and under this method, the cost side (input) resides on a cash basis and to assess the side of the output or return (output) on a cash basis, and the aim of this way to show the extent of the link between the cost and the return (output). If the show after analysis that the return is greater than the cost, the result of the analysis tells us project is comfortable in economic terms, preferably implemented. Vice versa, but if the yield is equal to cost of the program is uncomfortable economically, but it could be implemented for political reasons or other social, not economic, it account, when making the decision.

$$\text{The Ratio of Benefit / Cost} = \frac{\text{PVB}}{\text{PVC}}$$

Table (2): Percentage of Benefit / Cost) of the projects selected

No (1)	The Sector (2)	Name of Project (3)	PVB (4)	PVC (5)	Benefit / Cost (6)=(4)/(5)
1	Transport & Communication	Electronic Ministry	60450000000	5000000000	121%
2	Industrial	Manufacturing of the Tooth Rebuilding Material	96270000000	67389000000	140%
3	Industrial	Purification of the Iraqi Soil	19510720000	5301268000	370%
4	Agricultural	Fish breeding and propagation technique using floating cages in Iraq	62240000	36970560	170%
5	Industrial	Supervisory control systems and the collection of information SCADA	6000000000	2655000000	230%
6	Industrial	Establishment of Special Laboratory in Studies of Development Nanomaterial	19831620000	15803041400	125%
7	Building & Services	Development laboratories bacteriological examinations of water using modern technologies	145875000	115241250	126%
8	Transport & Communication	Generation station to receive satellite images	12892478400	12033750000	107%
9	Industrial	Establishing the Materialism Base of the Iraqi Wind Energy Project	513440000	357482600	143%
10	Industrial	Building material base for laboratories solar thermal Project hybrid power (Shihabi)	547740000	328644000	170%

Sources: Final report of all projects was selected of (2013-2014)

Fourth: Analysis and Interpretation of the DATA: Components of Investment Decisions: (Effectiveness and Efficiency Index): Result of table No. (3) Shows the arithmetic mean to the variable for Investment Decisions under Effectiveness which is amounted (82.13) and with standard deviation (11.241) which is higher level than arithmetic mean of Leacurt measurement (3), and the value of arithmetic mean to the variable of Investment Decisions under Efficiency is (1.341) and with standard deviation on its degree (0.6034) and because of their average arithmetic mean is (41.736) with the standard deviation on its degree (5.922). That means the leaders in Ministry of Science and Technology have good procedure for using Effectiveness index through making best investment decisions because percentage of their agreement is registered (**74.4**%).

Table No. (3)

NO	Variables	Arithmetic Mean	Varies statistic	Standard Deviation	Percentage	Degree of Agreement
1	Investment Decisions (Effectiveness Index)	82.13	126.4	11.241	74.4%	Good
2	Investment Decisions (Efficiency Index)	1.341	0.364	0.60344		
3	(X)Average of Investment Decisions	41.7355	63.382	5.922		
4	Ratio of Benefit / Cost	17.51	5.878	76.666	108.8	

III. TESTING RELATIONS & EFFECTIVENESS THE HYPOTHESES

Table No. (4) Describes the hypothesis (There is significance effect between the investment decisions

and Projects investment success). When we take correlation coefficient of average for the investment decisions (X) evidence the strong relation which is (0.641*) that means there is a strong positive correlation and good relation between Y(dependent variable), under Ration of Benefit / Cost Index and the (independent variable, X) on level significance ($P \leq 0.05$). Thus means there is a strong homogeneous between these variables and indicates the Ministry of Science and Technology adopt the philosophy of its leaders must makes a good investment decisions and focus on the Effectiveness index to achieve successfully investment Projects. We can also support this, through the value of (T) calculated about the relation between the variables we see that table (T tab.) on the degree of freedom (5) and the significance level ($\alpha = 0.05$) is (1.86) it is bigger than the (T cal.) of the Efficiency index only (0.952) if we compare with it, But the (T) table is less than the calculate (T cal.) for Effectiveness index (4.604) and also the average of investment decisions (X) is (2.778) which showed in the table No. (4). So we refuse the hypothesis (H0) and we accept hypothesis (H1) (There is significant effect between the investment decisions and Projects investment success), under Benefit / Cost Index means the success of Projects investment is result of the Ministry objective to make good investment decisions in their investment Projects

Table No. (4)

No.	Variables	Ratio of Benefit / Cost (Y)	(T)Calculate
1	Investment Decisions (Effectiveness Index)	0.953**	4.604
2	Investment Decisions (Efficiency Index)	0.328	0.952
3	(X)Average of Investment Decisions	0.641*	2.778

** is significance with the trust the relation level of (0.01)
* is significance with the trust the relation level of (0.05

CONCLUSIONS:

Then the study leads to many results below the important of them:
1. The findings indicated that the Ministry of Sciences and Technology believes that good investment decision enhances the Projects investment success. `
2. There is significant effect between the investment decision and Projects investment success, under Ratio of Benefit / Cost Index which means the success of Projects investment is not a chance.

RECOMMENDATIONS

Depending on the conclusions of the study
1. The Ministry of Sciences and Technology should commence with the creation of an intensive and continuous executive learning aptitude, to enhance current investment decision-making and to empower future leaders about strategic decisions and intentions with regard to their competitive landscape
2. The Ministry of Sciences and Technology should place more prominence on intelligence-related information for investment decision makers; however, a greater dispersion across all levels is required.

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