

Analyzing Project Management in Housing Construction in Erbil

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Doi:10.23918/icabep2018p26

Abstract

The main purpose of this study is to analyze project management of housing construction in Erbil. The research has used the secondary and primary data to find out the number of housing project in Erbil between 2006 - 2015. The primary findings is based on collection of data through distributing a survey which consists of six dimensions of project management such as project efficiency, impact on the customer, impact on the team, business and direct organization success, preparing for the future and overall success of projects by using Likert Scale, correlation, one sample T-Test and regression, questionnaire has been distributed among managers and engineers of housing projects to resemble the principle and concepts of project management to provide a better understanding of finished and unfinished projects. Housing projects in Erbil were 81 between 2006-2015 contained of 15% of finished projects and 85% of unfinished housing projects. Managers and engineers have answered the cause of unfinished projects by highlighting the usage of unfinished projects' budget for new projects. The researcher found that the mean of project efficiency is equal to (3.3) it shows that most of the respondent answered neutral, which means the housing projects are not analyzing the efficiency of the projects properly and it has been found that the demand for projects was not adequate based on the mean of the impact on the customer/user is equal to (3.7) it means that customer/user have impact on projects demand.

Key words: project, project management, Erbil, Kurdistan

Introduction

The process of innovation in the central elements, most industrial organization and across many industries, project management has become a key activity. Edifice construction, defense growth programs, method upgrades, by using some formal procedures of project management be a great portion of commercial product developments. Has not been an accompanied today the wide deployment of project in organizations. Also, a parallel develops the project management theory. (Heerkens, 2002) Between the project management challenges that project manager's skills are improperly described purposes and scope variations. To explain the goals of the project, the manager understands and knows it. The reasons to fail the project is that define goals are not clearly. The

manager likewise musts to manage the project range crawl and attempt not to extend the project beyond its unique objects. The owners of the project management, the need time to review and understanding, education and reflect upon to develop project management, so by increasing level of uncertainty and complexity in the project environments (Winter *et al*, 2006). An upsurge in trainings of critical success issues in project management demonstration one of the concerns for project flop is the cost of lost period resulting in lost incomes (Arslan & Kivrak, 2008). The approach or technique to project management, its no accord a couple of particular theory. The present national of project-management theory is healthier define as a usual of theories – a tool chest – that's extensive go on a gauge from positivist to negative approaches, most of that part unit competitor, non-compatible and incomparable (Bredillet, 2006). Project management is the main rehearsal of a design-engineering company. The victory of the occupation is a determinant issue for project usefulness and is a direct correlation to structural viability (A Financial Survey, 2006).

2.1 Literature review

The information is obtained from the articles, books and other report papers that published before in this area, in the literature review eight subtitles are including, Project management, The time value in the project management, Project management processes, Organizational project management, Project risk management, those subtitles give all details about literature review.

2.2 Project management

According to (Turner, 2009) for changing vision into reality from the project management. For future state we have some vision, we would like to achieve those visions. It may be a new organization structure, a new product, a new organization structure, a ew production process, a new computer system, or more competent managers. To improve Performance of our business, we need get help from predict that the operation of that new state, by resolving a exploiting or problem an occasion, for repay the cost of achieving, we need to provide us with benefit. To success deliver for the future states, we need project-based management. Users and providers of the project resolutions have adapted project management approaches and methods firstly grew in the construction and engineering regulations to enable the complex implementation and planning deeds for a resolution to assemble its intentional aims (Crawford, 2000). According to (Brandel, 2004) some project managers receive official education on agreement and toll discussion, if the problems arise it mean at the beginning of the project, the didn't understand well. According to (Pihie & Sani, 2008) Project costs, profits and fees, are areas of business knowledge engineering apprentices should have to know and help the business with management, marketing, and finance to be competitive. According to (Klastorin 2004) otherwise, the best defined of a project to put tasks, it must be completed or knowing all in order to meet the

project goals.

2.3 The time value in the project management

The organization need to use software program for controlling real time, if thy have more than twenty or more great activity concurrently normally and needed. Also thy can use the better software for controlling the time by online states to give trustworthy person in similar time paper or one of employment time resource to understanding actual time of influence in this project I believe this ample source to gather right data analysis time protection or time schedule to give those data to accounting and finance department to making the quantity real time operating to worth of time and this value have important parts in the loss and profit statement in financial statement (Kendall ,2003).

2.4 Project management processes

The PMI recognized five method groups that form the building block for any project life cycle. These process groups are as follows: initiation process group, planning process group, execution process group, Monitoring and control process group, closing process group, all of these methods take place at minimum once in the life cycle of each project. (Wysocki, 2009).

2.5 Organizational project management

According to (Lechler,1998) the project management decision of an organization strategies finished project by combine the systems of management program, project management and management as business alteration at hasten proportion its becoming rising significant to decision-making on project company's, the project management started to help company's evaluate and develop the ability of their company's project management, because the project management made by aboard base positive point.

2.6 Project Risk Management

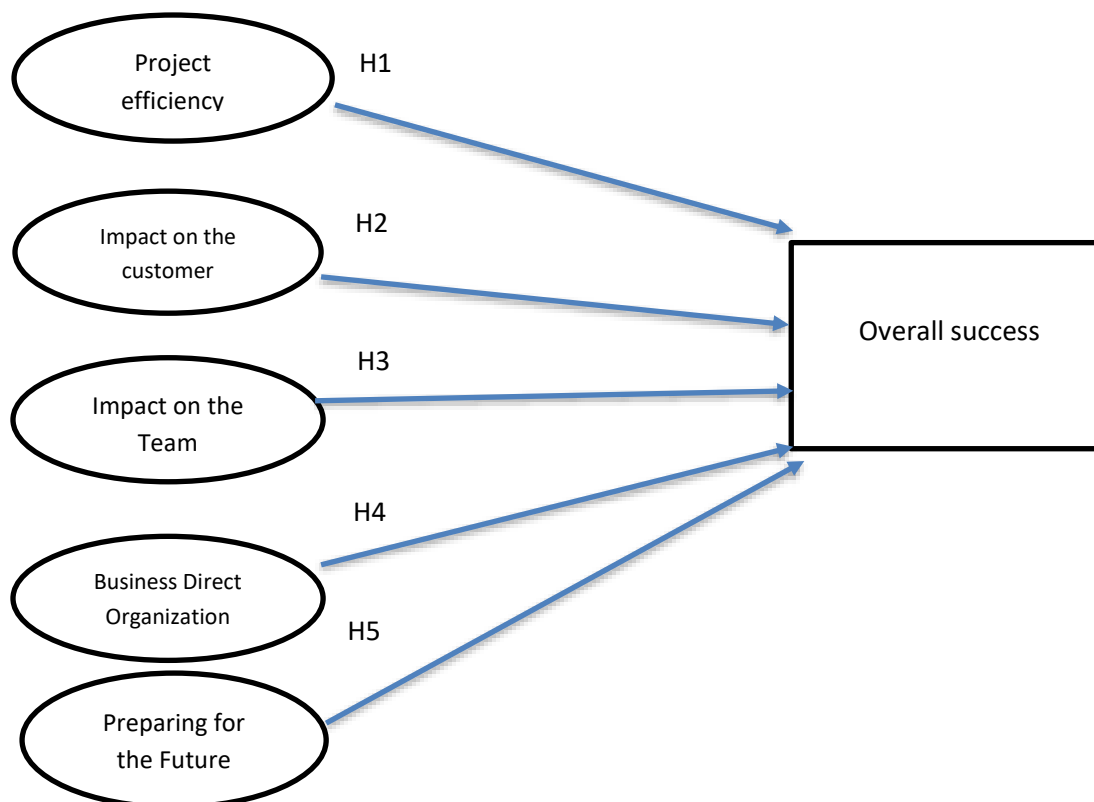
Risk is the unexpected conditions that are intrinsic in human doings which project management is no exception. This may show to be a clearer meaning surrounding all human activities, in the setting of project management; risk can be described as the "insecurities that could negatively affect the project by challenging the project's parameters or limits (Mintzer, 2002). This can result in loss of time, money, labor, or the project as a whole.

Research Objective

- 1- To state the reasons for unfinished projects in Erbil.
- 2- To show the importance of project management for the projects in Erbil.
- 3- To explain affect of customer/user on the project in Erbil.

3.1 Methodology

In this research paper I used a questionnaire in order to collect data about project management of some companies in Erbil. The questionnaire was comprised of two sections. The first section consisted of demographic questions, starting with the participant's (age, gender, level of education, marital status, job experience, spoken Language). The second section of the questionnaire consisted of six factors; first factor was project efficiency, which consisted of four questions. Second factor was impact on the customer/user, which consisted of five questions, third factor was impact on the team, which consisted of five questions, fourth factor was business and direct organization success, which consisted of six questions, fifth factor was preparing for the future, which consisted of six questions, sixth factor was overall success, which consisted of one question. I collected data in this research paper through distribution questionnaire as primary data; my surveys are distributed to the Managers and Engineers, from some housing construction company in Erbil. Also I used secondary data for my research work, which is finished by collecting it from resent academic articles, books, and previous studies related to project management: challenges and opportunity. A random sampling method was adopted to gather data. Where all managers and engineers in housing construction companies will have equal chances of being selected from the sample group. In the border of Erbil, it has 333 company between the year 2006 to 2015 from those company 81 company's are construction company and they had project, so 85% of projects are not finished it mean 69 projects are not finished, and 15% of the projects are finished, so in my study thirty companies are involved, (Kurdistan city, Mamostayan city, Kavar city, Hiwa city, Zhyan city, Lana city, Ferdaws city, Slava city, Future city, Shady city, Darwaza city, Galyawa group, Rekany group, Biyaban group, Aso group, Salay group, Rost valley company, Xalla company, Natrsn company, Namam company, Baranaty company, Mansur company, Zanyary apartment, Iskan apartment, Makok tawar, R.M.F, Shary hawler bo ragayandn, Family land, Aram village, Balsam hospital, and the sample size of my study was 104. The questionnaire is structured in the form of multiple-choice questions. The participants were asked to rate how they (Strongly disagree, disagree, neutral, agree, strongly agree, on each item. The questionnaire designed and adopted from the resource as a seen in appendix (A). So all question from questionnaire has taken from (Dvir & Shenhar, 2007). Data collected and analysed using SPSS 23 the statistical software. The T-test applied awith all dimensions to check the acceptibility of items for the further study. The correlation has been checked to check the inter relation of dimesions with each other. Regression analysis is also applied to know the effect of inndependent variables on dependent variable. The conclusion of the study is drawn based on the outcome of data analysed.

Table 1: Conceptual Model table one

H1: Project efficiency does not affect overall success of the organizations.

H2: Impact on the customer does not affect overall success of the organizations.

H3: Impact on the team does not affect overall success of the organizations.

H4: Business and direct organization does not affect overall success of the organizations.

H5: Preparing for the future does not affect overall success of the organizations.

4.1 Results for Finding and discussions

Table 2: Demographic Questions

Demographic	Items	Frequency	Percent
Age	28-24	10	9.6
	25-31	33	31.7
	32-41	32	30.8
	41-44	22	21.2
	+53	7	6.7
Gender	Male	104	100
Education level	Bachelors	80	76.9
	Master	19	18.3
	other	5	4.8
Marital States	Single	21	20.2
	Married	83	79.8
Job Experience	1-4	17	16.3
	5-9	36	34.6
	10-14	21	20.2
	15-20	30	28.8
Spoken Language	Kurdish	23	22.1
	Arabic	2	1.9
	K-A	17	16.3
	K-E	9	8.7
	K-A-E	35	33.7
	All	18	17.3

Table 3: Descriptive Statistics

As result for this dimension the total mean are equal to (3.3894) and the maturity of respondent for question 7, 8, and 9, are near to neutral, and the maturity of respondent for question 10 is agree. and the maximum for this dimension is equal to 4.00 and the minimum for this dimension are equal to 2.8.

Items	N	Min	Max	Mean	Std. Deviation
q7- the project was completed on time or earlier	104	1.00	5.00	2.8846	1.29456
q8- the project was completed within or below budget	104	1.00	5.00	3.1538	1.18050
q9- the project had only minor changes	104	1.00	5.00	3.5096	1.10599
q10- other efficiency measures were achieved from the project	104	1.00	5.00	4.0096	.83020

Table 4: Descriptive Statistics

As result for this dimension the total mean are equal to (3.7519) and the maturity of respondent for question 11, 12, 13, 14, and 15, are near to agree, and the maximum for this dimension is equal to 3.8 and the minimum for this dimension are equal to 3.6.

Items	N	Min	Max	Mean	Std. Deviation
Q11- The product improved the customers performance	104	1.00	5.00	3.7404	.90302
Q12- The customer was satisfied from the project ^[1] _{SEP}	104	1.00	5.00	3.8558	.92870
Q13- The product met the customers requirement ^[1] _{SEP}	104	1.00	5.00	3.7308	.88384
Q14- The customer is using the product	104	1.00	5.00	3.6827	1.12573
Q15- The customer will come back for future work ^[1] _{SEP}	104	1.00	5.00	3.7500	.97293

Table 5: Descriptive Statistics

As result for this dimension the total mean are equal to (3.9788) and the maturity of respondent for question 16, 17, 18, 19, and 20, are agree, and the maximum for this dimension is equal to 4.09 and the minimum for this dimension are equal to 3.7.

Items	N	Min	Max	Mean	Std. Deviation
Q16- The team was highly loyal to the project ^[1] _{SEP}	104	1.00	5.00	4.0962	.94014
Q17- The project team had high morale and energy	104	1.00	5.00	3.9615	.93397
Q18- The team felt that working on the project was fun	104	1.00	5.00	4.0288	.94977
Q19- Team members experienced personal growth	104	1.00	5.00	3.7788	.94465

Q20- Team members wanted to stay in the company 104 1.00 5.00 4.0288 1.06540

Table 6: Descriptive Statistics

As result for this dimension the total mean are equal to (3.5032) and the maturity of respondent for question 21, 22, 23, and 24, are near to agree, and the maturity of respondent for question 25 and 26 are natural, and the maximum for this dimension is equal to 3.7 and the minimum for this dimension are equal to 3.1.

Items	N	Min	Max	Mean	Std. Deviation
Q21- The project was an economic business success	104	1.00	5.00	3.7212	.90797
Q22- The project increased the company profitability	104	1.00	5.00	3.5865	1.04844
Q23- The project has a positive return on investment	104	1.00	5.00	3.6442	.98452
Q24- The project increased the organizations market share	104	1.00	5.00	3.5865	.87700
Q25- The project contributed to shareholders value	104	1.00	5.00	3.3173	.75382
Q26- The project contributed to organizations direct performance	104	1.00	5.00	3.1635	.92548

Table 7: Descriptive Statistics

As result for this dimension the total mean are equal to (3.4968) and the maturity of respondent for question 27, 28, 29, 30, and 31, are natural, and the maturity of respondent for question 32 are agree, and the maximum for this dimension is equal to 3.9 and the minimum for this dimension are equal to 3.2.

Items	N	Min	Max	Mean	Std. Deviation
Q27- The project outcome will contribute to future projects ^[1]	104	1.00	5.00	3.5288	1.10565
Q28- The project will lead to additional new products	104	1.00	5.00	3.4519	1.04165
Q29- The project will help create new markets	104	1.00	5.00	3.4423	.91192
Q30- The project create new technologies for future use	104	1.00	5.00	3.2981	1.09615
Q31- The project contributed to new business processes	104	1.00	5.00	3.3269	.79369
Q32- The project developed better managerial capabilities	104	1.00	5.00	3.9327	.97805

Table 8: Descriptive Statistics

As result for this dimension the total mean are equal to (3.4968) and the maximum and minimum for this dimension are equal to 4.00, because this dimension it has one question.

Item	N	Min	Max	Mean	Std. Deviation
Q33- Overall the project was a great success	104	1.00	5.00	4.0288	.89721

Table 9: Correlations

	Project efficiency	Impact on the customer	Impact on the team	Business and direct organization	Preparing for the future	Overall success
Project efficiency	Pearson Correlation	1	.649**	.367**	.564**	.549**
	Sig. (2-tailed)		.000	.000	.000	.000
	N	104	104	104	104	104
Impact on the customer	Pearson Correlation	.649**	1	.576**	.622**	.669**
	Sig. (2-tailed)	.000		.000	.000	.000
	N	104	104	104	104	104
Impact on the team	Pearson Correlation	.367**	.576**	1	.431**	.527**
	Sig. (2-tailed)	.000	.000		.000	.000
	N	104	104	104	104	104
Business and direct organization	Pearson Correlation	.564**	.622**	.431**	1	.732**
	Sig. (2-tailed)	.000	.000	.000		.000
	N	104	104	104	104	104
Preparing for the future	Pearson Correlation	.592**	.669**	.527**	.732**	1
	Sig. (2-tailed)	.000	.000	.000	.000	
	N	104	104	104	104	104

	Pearson						
	Correlation	.549**	.767**	.627**	.633**	.660**	1
Overall success	Sig. (2-tailed)	.000	.000	.000	.000	.000	
	N	104	104	104	104	104	104

** . Correlation is significant at the 0.01 level (2-tailed).

In the above table six dimension are correlated to each other where all correlation is highly significant with value 0.000. The correlated of impact on the customer with impact on the team is 0.576, impact on the customer with business and direct organization is 0.622, impact on the customer with preparing for the future is 0.669, impact on the customer with overall success is 0.767. The correlated of impact on the team with business and direct organization is 0.431, impact on the team with preparing for the future is 0.527, impact on the team with overall success is 0.627. The correlated of business and direct organization with preparing for the future is 0.732, business and direct organization with overall success is 0.633. The correlated of preparing for the future with overall success is 0.633.

Table 10: One-Sample Test

Items	Test Value = 3		
	t	df	Sig. (2-tailed)
PE7	-.909	103	.365
PE8	1.329	103	.187
PE9	4.699	103	.000
PE10	12.402	103	.000
IC11	8.361	103	.000
IC12	9.397	103	.000
IC13	8.432	103	.000
IC14	6.185	103	.000
IC15	7.861	103	.000
IT16	11.890	103	.000
IT17	10.499	103	.000
IT18	11.047	103	.000
IT19	8.408	103	.000
IT20	9.848	103	.000
BDOS21	8.100	103	.000

BDOS22	5.705	103	.000
BDOS23	6.673	103	.000
BDOS24	6.820	103	.000
BDOS25	4.293	103	.000
BDOS26	1.801	103	.075
PF27	4.878	103	.000
PF28	4.424	103	.000
PF29	4.946	103	.000
PF30	2.773	103	.007
PF31	4.201	103	.000
PF32	9.725	103	.000
OS33	11.694	103	.000

From the project efficiency this two items (PE7 + PE8) are not having the significant responses so it should not get consider in the study. So from business direct organization one item (BDO26) is not having the significant responses so it should not get consider in the study, Also from the preparing for the future one item (PF30) is not having the significant responses so it should not get consider in the study. Other items for all dimensions (project efficiency, impact on the customer, impact on the team, business and direct organization success, preparing for the future and overall success) are highly significant with the value of 0.000.

Table 11: Regression

ANOVA ^a					
Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	24.977	1	24.977	43.974	.000b
1 Residual	57.936	102	.568		
Total	82.913	103			

a. Dependent Variable: Overall success

b. Predictors: (Constant), Project efficiency

Coefficients				
Model	Unstandardized Coefficients	Standardized Coefficients	t	Sig.

	B	Std. Error	Beta		
(Constant)	1.633	.369		4.427	.000
1 Project efficiency	.707	.107	.549	6.631	.000

a. Dependent Variable: Overall success

Table 11: Regression for project efficiency with overall success

Project efficiency table eleven: the table show above is having the independent variable and dependent variable overall success with highly significant value 0.000, and the beta is 0.660.

Table 12: Regression

ANOVA^a

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	48.758	1	48.758	145.606	.000 ^b
1 Residual	34.156	102	.335		
Total	82.913	103			

a. Dependent Variable: Overall success

b. Predictors: (Constant), Impact on the customer

Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	.366	.309		1.185	.239
1 Impact on the customer	.976	.081	.767	12.067	.000

a. Dependent Variable: Overall success

Table 12: Regression for impact on the customer with overall success

Impact on the customer table twelve: the table show above is having the independent variable and dependent variable overall success with highly significant value 0.000, and the beta is 0.767.

Table 13: Regression**ANOVA^a**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	32.622	1	32.622	66.164	.000 ^b
	Residual	50.291	102	.493		
	Total	82.913	103			

a. Dependent Variable: Overall success

b. Predictors: (Constant), Impact on the team

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.972	.382		2.545	.012
	Impact on the team	.768	.094	.627	8.134	.000

a. Dependent Variable: Overall success

Table 13: Regression for impact on the team with overall success

Impact on the team table thirteen: the table show above is having the independent variable and dependent variable overall success with highly significant value 0.000, and the beta is 0.767.

Table 14: Regression

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	33.202	1	33.202	68.126	.000 ^b
	Residual	49.711	102	.487		
	Total	82.913	103			

a. Dependent Variable: Overall success

b. Predictors: (Constant), Business and direct organization

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.926	.382		2.425	.017
	Business and direct organization	.886	.107	.633	8.254	.000

a. Dependent Variable: Overall success

Table 14: Regression for business and direct organization with overall success

Business and direct organization table fourteen: the table show above is having the independent variable and dependent variable overall success with highly significant value 0.000, and the beta is 0.633.

Table 15: Regression

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	36.100	1	36.100	78.658	.000 ^b
	Residual	46.813	102	.459		
	Total	82.913	103			

a. Dependent Variable: Overall success

b. Predictors: (Constant), Preparing for the future

Coefficients^a

Model		Unstandardized Coefficients		Standardized	t	Sig.
		B	Std. Error	Coefficients		
1	(Constant)	.925	.356		2.598	.011
	Preparing for the future	.888	.100	.660	8.869	.000

a. Dependent Variable: Overall success

Table 15: Regression for Preparing for the future with overall success

Business and direct organization table fourteen: the table show above is having the independent variable and dependent variable overall success with highly significant value 0.000, and the beta is 0.660.

5.1 Conclusion

The aim of the research is to mention some important concepts to the companies, who have a project, as defined by Presidency of Erbil Municipality from 2006 to 2015 in the border of Erbil, it has 333 companies and 81 companies are the construction companies and they have a project, but from those 81 companies only 15% are finished and the rest are not finished. The researcher distributed 104 questionnaire to managers and engineers in the 30 different company projects, the researcher used frequency analysis in order to be able to answer the main research questions, as results the researcher came to concluded in terms of first research question, what are the reasons for unfinished project in

Erbil. Managers and engineers have answered the cause of unfinished projects by highlighting the usage of unfinished projects' budget for new projects, and the result of Presidency of Erbil Municipality from 2006 to 2015 in the border of Erbil. The researcher found that the mean of project efficiency is equal to (3.3) it shows that most of the respondent answered neutral, which means the housing projects are not analyzing the efficiency of the projects properly and it has been found that the demand for projects was not adequate based on the mean of the impact on the customer/user is equal to (3.7) it means that customer/user have impact on projects demand but not in the high level, because all company need to think about best way of the customer and put the best strategy planning for the company, to be the high level of the role in organization. The T-test has given the outcome where 23 items are accepted and 4 items are not significant to have in study. The regression analysis has tested all five hypotheses where all the five hypotheses got rejected with highly significant value of 0.000. So it concludes that Project efficiency, Impact on the customer, Impact on the team, Business and direct organization and Preparing for the future has the impact on overall success of the organizations, with 55%, 77%, 62%, 63% and 66% of effectiveness respectively. So the research concludes that all the independent variables have a strong impact on the dependent variable.

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