



جامعة الجميع الذكية
EVERYONE'S SMART UNIVERSITY

Everyone's Smart University

Project (Spring 2021)

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Section

Master

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Project Risk Management

A project to construct a residential complex of several villas

-Introduction:

The specialists pointed out that the sectors of "real estate activities", "construction and building" and "housing finance" will be among the most important sectors that will witness remarkable growth during the year 2020 AD due to the continuation of the housing program of the Ministry of Housing to provide its services to more than 300 thousand families this year by continuing The program aims to facilitate the citizens' access to one of the housing options and financing solutions provided by the program to meet the aspirations of families to obtain the first home and increase ownership rates to 70% according to the plans of the housing program - one of the Vision 2030 programs.(1)

Therefore, decided that the project will be the construction and building of a residential complex of several villas, one of the most important real estate sectors through which companies develop and grow is construction, **Al-jazirah Contracting and Construction Company** aims to establish a residential complex of several residential villas.

The main objectives of the project are to increase profits, improve the economic situation and raise the company's reputation, It is also more important to identify the risks that may face the project from all types of risks, whether compliance risks, hazard risks, uncertainty risks and opportunity risk to Scope and goal objective for project.

My role in the project as a project manager is the full responsibility of the project from helping to create the project framework and dealing with stakeholders to take their expectations and define their roles and then the planning and planning stage for all process and knowledge areas, implementation and monitoring to monitor what has been planned within the scope.

Risk Management is the process of identifying, analyzing and responding to risk factors throughout the life of a project and in the best interests of its objectives. Proper risk management implies control of possible future events and is proactive rather than reactive.

One of the most common risks is not defining the scope and objectives correctly and effectively, which results in the project not being delivered on time, within scope, and within budget. However, many projects fail in these aspects - and the reason: The project scope is not properly captured.

- literature review:

Looking at the business context, insurance industry is possibly the origin of risk management practices. During the 1950s as an effect of the insurance management function in the US emerge important developments about RM and in the 1960s emerged the concept of contingency planning. In that time, companies could manage risk by reducing the possible hazard through insurance, however the high cost of this kind of products and the fact it wasn't enough to protect businesses, RM became a very popular method. In the US and Western Europe, the concept of RM created an important emphasis on the cost-benefit analysis during the 1970s. By the 1980s, the concept expanded and introduced the total cost of risk, risk financing and risk control. The application of this techniques and procedures due developed to project management, enterprises and financial institutions. From 1980s to the 1990s, risk management tools and theory combined to manage market risk, credit risk and operational risk for financial institutions (Sithipolvanichgul 2016). The principles of risk management have moved away from its origins of trying to transfer risk to third parties, to take advantage of risk and opportunities by diminish the level of risk itself (Hopking 2012). RM is not just about avoiding negative results, because risk can comprise both negative and positive indeterminacy. During the 1990s to 2000s, the concept of Enterprise Risk Management developed from a focus on managerial and corporate governance (Sithipolvanichgul 2016). The Chief Risk Officer (CRO) position was created during this period of time. Businesses were encouraged to develop their own risk management systems by financial scandals, such as Enron and WorldCom, and its fast evolution was as a result of the Sarbanes-Oxley Act of 2002 in the US. The 2008 financial crisis produced that more financial and non-financial companies took a holistic, strategic and process-oriented approach to Enterprise Risk Management that would handle the internal and external risks with the intention of increasing shareholder value. (2)

The main differences between the RM into corporate governance theory and the traditional approach of risk management are: a "holistic" approach against a "silo" approach; view risk in the context of business strategy versus analyze risk as individual hazard; focus on risk optimization base on portfolio development in contrast to just focus on risk identification, assessment and mitigation; emphasis on critical risk and risk strategy in contrast to pay attention to discrete risk and risk limits. Risk governance integrates the structure, role and capacity of the organization, stakeholder involvement, collaborative decision-making, accountability and responsibility (Reen 2008) and provides the hierarchical structure, role and responsibility, policies and procedures. (2)

- Methodology

Ways to Identify Scope Risks;(3)

- Interviews. Select key stakeholders.
- Brainstorming. Plan your brainstorming questions.
- Checklists. See if your company has a list of the most common risks.
- Assumption Analysis.
- Cause and Effect Diagrams.
- Nominal Group Technique (NGT)
- Affinity Diagrams.
- Work Breakdown Structure (WBS)

List the risks of the scope that the project may face

- Individuals may add features to the product that were not approved.
- The project team may not identify all the deliverables, requiring changes later.
- Scope changes may not be processed through the change control process.
- Requirements may not be properly analyzed and understood..
- Traceability structure may not be developed resulting in requirements not being managed through the design, development, and testing processes.
- The project team may fail to identify all the activities required to create the deliverables.

Probability	0.7-1	high	high	medium
	0.3-0.69	high	medium	low
	0-0.29	medium	low	low
		0.7-1	0.3-0.69	0-0.29
		Impact		

Figure1: shown probability and impact method

Risk matrix.

SN	List of risk	probability	Impact
1	Individuals may add features to the product that were not approved.	0.3	0.6
2	The project team may not identify all the deliverables, requiring changes later.	0.4	0.7
3	Scope changes may not be processed through the change control process.	0.2	0.3
4	Requirements may not be properly analyzed and understood.	0.5	1
5	The project team may fail to identify all the activities required to create the deliverables.	0.3	0.65
6	Traceability structure may not be developed resulting in requirements not being managed through the design, development, and testing processes.	0.4	0.69

Table 1: risk matrix

SN	List of risk	probability	Impact	severity	Response plan
1	Individuals may add features to the product that were not approved.	0.3	0.6	Medium	Made interview to Specify all requirements for clients and update them and attach the change request when they want the amendments
2	The project team may not identify all the deliverables, requiring changes later.	0.4	0.7	High	Make a check list during monitoring and ensure that all requirements are met
3	Scope changes may not be processed through the change control process.	0.2	0.3	Low	Scope changes may not be handled by the change control process. Knowing the person responsible for the changes and communicating with them when there is any change
4	Requirements may not be properly analyzed and understood.	0.5	1	HIGH	During the collection of requirements, interviews and questionnaires are made, expectations are analyzed, and brainstorming is conducted so that the requirements are properly understood and combined.
5	The project team may fail to identify all the activities required to create the deliverables.	0.3	0.65	medium	The activity is defined and the structure of the business segmentation is structured so that it is clear
6	Traceability structure may not be developed resulting in requirements not being managed through the design, development, and testing processes.	0.4	0.69	Medium	Establishing and developing the tracking structure from the beginning and defining the requirements in full, leading to efficient management of requirements through design and development .processes

Table2: Response plan

- Result and discussion:

The EMV cost will be calculated. All numbers set are a simple cost based on studies and consultations

SN	List of risk	probability	Impact	Risk contingency
1	Individuals may add features to the product that were not approved.	0.3	7000\$	2100\$
2	The project team may not identify all the deliverables, requiring changes later.	0.4	7000\$	2800\$
3	Scope changes may not be processed through the change control process.	0.2	5000\$	1000\$
4	Requirements may not be properly analyzed and understood.	0.5	15000\$	7500\$
5	The project team may fail to identify all the activities required to create the deliverables.	0.3	9000\$	2700\$
6	Traceability structure may not be developed resulting in requirements not being managed through the design, development, and testing processes.	0.4	5000\$	2000\$
Total			48000\$	18100\$

Table3: EMV, Contingency

As shown in the table 1 , the risks and possibilities and their impact were determined based on some research and expert advice.

Then, as shown in the second table, the responses to the risks were determined. They are also studied and consulted by experts therein

In the last table, the expected monetary value (E M V) was calculated, and the result of the impact cost of the project appeared somewhat high, \$ 48000, and thus the difficulty of obtaining it, and the main reason for this amount is our expectation of the occurrence of all the mentioned risks, and the emergency reserve of \$ 18100 was noted, which can be added to the budget

We must know that the goal of risk management is to reduce the impact of risks on the project.

- References

- 1- Al-Eqtisadiyah from Riyadh, Friday 23 April 2021
- 2-The Public Risk Management Association (2010) An Introduction. US: Sage Publications.
- 3- Harry , risk management, Harry Hall, 2021 project risk coach.