Foreign Exchange Management System (FXMS)

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Chapter 1

System Request (FXMS)

1.1 Project Sponsor

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1.2 Business Need

The need for a project like the Foreign Exchange Management System (FXMS) is crucial for businesses operating internationally for several reasons:

- Operating internationally: Businesses engaged in importing and exporting goods and services will need a system like FXMS for currency conversion, enabling them to exchange their local currency for that of the country in which they wish to operate, thereby settling international transactions.
- Managing cash flow: Businesses operating overseas need to manage their cash across multiple currencies. FXMS will help them monitor and optimize their cash by converting currency at favorable rates and timings.
- Softening the risk: FXMS will provide businesses with tools to manage and mitigate the risks associated with fluctuations in currency prices. By using specific strategies, companies can lower the risk of exchange rate volatility and protect their profit margins.

1.3 Business Requirements

The functionality that the system should have includes:

- Ability to manage clients and accounts (insert, update, delete).
- Ability to manage trades (insert, update, and delete trades). Any trader can enter new trades while updating and deleting existing trades require specific privileges.
- Ability to manage traders and coverage groups by assigning a trader to a coverage group, moving a trader from one coverage group to another.

- Ability to manage currencies and rates including daily updates of rates available in the market. The system is assumed to be connected with another system (such as Tadawul) which provides daily updates for exchange rates between all currencies.

1.4 Business Value

The Foreign Exchange Management System (FXMS) is expected to deliver some gains:

- Quicker and Better Decision Making: Taking good decisions in a quick manner gives a competitive advantage in the international markets.
- Less Human Error: The human factor will be limited to things that require humans interaction and not things that are repetitive that are error prone.
- More Money: The amount of money traded will be more giving the organization a better chance at making more money.
- Headcount reduction by 10 traders per branch.
- 15% increase in market share.

1.5 Constraints

- The system should run on Windows 10.
- The system should be delivered by the end of the year 2028.
- Security and reliability must be considered during development.

Chapter 2

Feasibility Study

Overall, the risk in this project compared to the gains can be considered manageable.

2.1 Technical

The technical team is confident they can build it since they built a similar system before, the knowldege they gained during that experience lowers the risk.

- Familiarity with application: The team is familiar with building an FXMS.
- Familiarity with technology: Since the team members have a collective experience of over 50 years building complex software, we are confident they will be able to tackle the project.
- Project Size: Large project, but since team is familiar, it won't be a high risk as usual.
- Compatibility: The company wants a custom solution, so we will make sure it integrates well by analysing before we build anything and before we choose a platform.

2.2 Financial

2.2.1 Cost-Benefit Analysis

The cashflow analysis below in Figure 2.1 is a condensed versin of the 4 years (monthly based) version of the cashflow analysis. It gives an idea on the way the project will behave financially.

	Cash Flow Analysis				
		Y1	Y2	Y3	Y4
	0	1	2	3	4
cash out					
office furniture	(150,000.00)				
laptops	(50,000.00)				
office rent		(300,000.00)	(300,000.00)	(300,000.00)	(300,000.00)
moci		(5,000.00)	(5,000.00)	(5,000.00)	(5,000.00)
utility		(11,000.00)	(11,000.00)	(11,000.00)	(11,000.00)
marketing		(500,000.00)	(500,000.00)	(500,000.00)	(500,000.00)
maintenance		(50,000.00)	(50,000.00)	(50,000.00)	(50,000.00)
t&a		(50,000.00)	(50,000.00)	(50,000.00)	(50,000.00)
salary		(1,463,370.00)	(1,463,370.00)	(1,463,370.00)	(1,463,370.00)
total	(200,000.00)	(2,379,370.00)	(2,379,370.00)	(2,379,370.00)	(2,379,370.00)
cash in					
captial	2,000,000.00				
increased sales			1,450,083.37	7,758,308.70	41,508,891.91
decreased salaries			3,207,642.57	-	-
total	2,000,000.00	-	4,657,725.93	7,758,308.70	41,508,891.91
net cashflow	1,800,000.00	(2,379,370.00)	2,278,355.93	5,378,938.70	39,129,521.91
cummulative net cashflow	1,800,000.00	(579,370.00)	1,698,985.93	7,077,924.63	46,207,446.54

Figure 2.1: Cashflow Analysis of FXMS

2.2.2 ROI and BEP

We will move to the big numbers, the ROI and the BEP.

ROI	488%
BEP	36

Figure 2.2: ROI and BEP of FXMS

Chapter 3

Methodology

Below in Table 3.1, the criteria we used to choose our methodology are mentioned with what we chose.

Table 3.1: Criteria Evaluation for System Development

Criteria	Answer
Are the requirements clear?	Yes
Is the technology familiar to the team?	Yes
Is the system complex?	Yes
Does the system need to be reliable?	Yes
Is the system scheduled to be built in a short time?	No
Do we have schedule visibility?	Yes

We decided to go with V-Model methodology since it is simple and straightforward, and the testing phase ensures quality and reliability, in addition to the quality personnel and the engineers themselves who will bake the quality in. We don't beleive in doing quality work after the fact since it should be built and baked in from the beginning.

Also since the project requirements are clear and the team is comfortable with the technology, the V-Model methodology fits the use case and helps the project succeed.

Chapter 4

Project Workplan