

ABSTRACT

A methodology to solve the cash management problem has been suggested. The problem has been conceived in the context of tremendous potential due to

- (i) Lack of adequate representation of cash management situations in the existing models.
- (ii) The basic need for a simplistic and easily implementable model in cash management.
- (iii) The possibility of introducing queueing technique as an efficient approach to solving problems in the area of finance, for the first time.

The contents of the thesis has been briefly summarised as under. The brief idea of the nature of cash management problem, its intricacies and its inter-relatedness to other decisions is brought out in Chapter 1.

Chapter 2 highlights the important contributions in literature in the area and gives a coverage on both Qualitative types of decision making and quantitative types of decision making independently. The weaknesses of the important models have been clearly spelt out to illustrate the need for a new cash management model.

Chapter 3 summarises the nature of work that is to follow in the thesis, and presents an overall picture of the queueing approach. The basic aim of this chapter is to present in a nutshell the contents of the thesis.

Chapter 4 is dedicated to problem definition and the underlying assumptions incorporated while formulating the model.

Chapter 5 solves a simple case of a double ended Queue model and complex situations of bulk flows have been covered in Chapter 6.

Chapter 7 presents the results that were obtained for a cash flow data, with additional illustrations to depict the usefulness of the model.

A detailed write up on the simulation approach are presented in Chapter 8. This chapter deals with a cash management problem that is very close to the realistic situation.

As we go deeper into the problem we realise the need for cash flow forecasting. The techniques for forecasting and the parameters that affect cash flows have been described in great detail in Chapter 9.

Cash flows require close monitoring. A systems analysis and design for cash management has been included to provide reports to the management for control purposes as well as planning purposes. The details are presented in Chapter 10.

Chapter 11 looks at the problem as a semistructured problem and presents in brief a Decision Support Systems approach for efficient management of cash.

Chapter 12 ends the work with suggestions for possible areas of work.

Appendix II has been added to introduce the Systems Dynamics approach as an alternative approach for a cash flow problem.

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