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Cash flow analysis and forecasting

The Definitive Guide to Understanding and Using Published Cash Flow Data

TIMOTHY JURY

Cash Flow Analysis and Forecasting

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The Definitive Guide to Understanding and Using Published Cash Flow Data

Timothy D.H. Jury

WILEY

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To my mother and father,
brother and sisters for always being there

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Introduction

This book is the definitive guide to cash flow analysis. It is designed to be the definitive first reference on all aspects of historic cash flow analysis. It also provides an incisive overview of the risks to be managed in preparing cash flow forecasts.

It has been written from a cash flow-centric point of view. Other financial and analytical information is introduced whenever relevant to support the process of cash flow analysis.

This book is designed for people trying to understand and analyse cash flows, probably in a professional context. Whilst it contains some theoretical content, the primary objective is to offer a practical handbook of cash flow analysis.

Ideally, it should first be read like a novel and then dipped into chapter-by-chapter as required; a detailed guide to the contents of each chapter follows this introduction. Much of the information in the book has been laid out to facilitate direct reference from the index; also allowing it to be used as a pure reference text.

Considerable effort has been expended to make the book as user friendly as possible. It has been designed to be relevant and useful both to persons who are coming to cash flows for the first time, and to those who are more experienced in the perils of financial statement analysis! I have paid particular attention to the needs of those who are not native English speakers. I have tried to keep the use of English as clear and concise as possible whilst avoiding the use of unnecessary complexity.

Whilst the book is written primarily for those employed as financial analysts, I have identified four other major user groups whose needs are specifically dealt with in different sections of the book. They are:

- Novices in financial analysis and other persons new to, or relatively unfamiliar with, cash flows in general and their analysis in particular, in all fields of endeavour, who wish to improve their understanding of cash flow.

- Bankers, credit analysts and others involved in business lending and the management of credit exposures and credit risk.
- Investors, fund managers and credit analysts involved in taking investment decisions.
- Entrepreneurs, managers and business people involved in controlling business entities.

The guide to the book, which follows this introduction, provides an indication of the content of each chapter and its relevance to different users. For example, persons who have no desire to actually perform the analysis of the cash flows of a business themselves, but who still wish to understand cash flow, will initially gain little from Chapters 4 and 5 as they are written for persons who are seeking to practically apply the technique for the restatement of published cash flows.

THE LOGIC OF THE BOOK DESIGN

Years of experience as a financial trainer have taught me that people acquire technical knowledge in a very random way from a variety of sources as they come across information relevant to their needs. This sometimes results in a partial, incomplete and often inaccurate understanding of the particular subject in issue. As a trainer and author my objective is to organise the information relevant to a subject or task in a logical and structured way to facilitate and ease the assimilation process. The metaphor I like to use is that of a jigsaw. My audiences will typically have many of the pieces of the jigsaw already in their possession; however, until I facilitate the process of assimilation they have not previously assembled the pieces into a complete picture. When working as a trainer not only do I assist in completing the jigsaw, I also provide the missing pieces, which are different for each participant!

For this reason the book has been organised into specific blocks of knowledge. It can be read sequentially. It can also be used as a reference to provide answers to specific queries and problems by dipping into the relevant part of the book.

COMPLEXITY

The word complex is regularly misused to mean difficult, or beyond the users present comprehension. When things labelled complex are analysed it often becomes clear that what is actually meant is there is a lot of information to assimilate before comprehension of the whole can be gained. The information itself is not particularly demanding to comprehend; there is, however, a lot of it! Writing computer software or learning a musical instrument or foreign language are typical examples.

My strategy for this type of assimilation problem is to chop the information up into lots of little bits that are sufficiently elemental that they can be adequately digested by the person seeking to assimilate the whole area of knowledge and then build the knowledge in a pyramid form by adding blocks and layers in an ordered way. This is the approach I have taken in writing this book.

THE USE OF CASE STUDIES IN THE BOOK

Once the initial chapters have introduced the concepts upon which the analysis of cash flows rely, the book includes a number of case studies that illustrate the use of the technique for cash flow analysis offered. Most of these cases are based on financial information taken from the accounting statements of real business entities. I prefer to do this because there is then no challenge as to the reality of business behaviour. If I create fictional cases for the book there is a risk users will question my conclusions about them and cash flow analysis in general on the basis that the examples are fictionalised and therefore do not represent a reasonable representation of business reality.

However, this inevitably results in problems with dates! The question of how to deal with dates in the book is one that has vexed me significantly. The problem for the publisher and I is that the book will soon appear dated if we show the years from which the case studies were taken in the original. Users may wrongly assume the message and content of the book is somehow less relevant because the material used to illustrate the logic of the technique offered is ageing.

The logic of the cash flow analysis technique offered in the book is essentially timeless, it should work virtually anywhere and anytime financial information is available to perform the analysis. For this reason I have partially disguised the original dates of the material used to illustrate the cases. The timeline of most of the case studies offered is incidental; the examples are there to illustrate the use and benefits of the cash flow analysis technique that is the basis of this book.

Experienced analysts will know that in performing any business analysis the economic context in which the company operates is sometimes highly relevant. Matters such as inflation, interest rates and the state of the economy may affect the conclusions drawn about the relative performance of a business. For this reason, in a small number of cases and where the context of the example warrants it, I have left the dates as they were originally. This allows the reader to put the case into the context of the economic conditions prevailing at the time.

Considerable effort has been expended to keep the various examples, tables and other information both numerically and factually correct, however, it is inevitable in a work of this length that, despite our best efforts, errors may still creep into print. Please do not hesitate to bring these to my attention, to further improve the book as it develops.

I hope this book changes your life. For those whose job is to analyse cash flows for a living it may actually do so!

Capitalisation

Throughout the book, where you see CAPITALISED WORDS, these refer directly to key words in tables and figures that are being discussed and explained in the text.

GUIDE TO THE BOOK

The book is organised into two sections, the first dealing with the analysis of historic cash flow data, the second dealing with the forecasting of cash flow information.

Section One – Historic Cash Flow Analysis

Chapter 1 – Understanding How Cash Flows in a Business

Level basic – the chapter is designed as a layperson's introduction to the whole subject of cash flow in business. In addition to introducing the cash flow patterns seen in business, it outlines a number of other fundamental issues and risks that managers must overcome in order to trade successfully. No prior knowledge of cash flow is assumed. The material is presented from the ground up through the use of straightforward examples.

Despite being offered as a basic introduction everyone seeking to utilise the cash flow analysis technique presented in the book should read this chapter as it introduces and defines part of the terminology used throughout the book.

Chapter 2 – Understanding Cash Flows Properly

Level intermediate – this chapter explains the knowledge and the steps required to analyse cash flows properly. It then commences the process by explaining all the terminology used in a simple cash flow example and introduces the analysis technique for the first time.

Chapter 3 – Start-up, Growth, Mature, Decline

Level intermediate – this chapter introduces the non-financial information needed to get the most out of the cash flow analysis technique offered in the book. Everything offered in this chapter is covered in more detail in Chapters 6 to 10.

Chapter 4 – Restating the Cash Flows of a Real Business

Level advanced – readers without some prior knowledge of financial statement analysis and accounting will find this chapter demanding. Considerable effort has gone into explaining the accounting and analytical knowledge required to properly utilise the cash flow analysis technique offered. The example chosen to illustrate the process being taken from a business preparing its accounts using International Financial Reporting Standards.

Chapter 5 – Restating US GAAP Cash Flows

Level advanced – this follows on from the previous chapter by taking an example of the technique based on a business following US financial accounting rules in the preparation of its financial statements. It is necessary to be familiar with the content of the previous chapter in order to get most benefit from this one.

Chapter 6 – Analysing the Cash Flows of Mature Businesses

Level advanced – this chapter defines the term 'mature' and presents the information required to comprehensively analyse the cash flows of a mature business.

Chapter 7 – Analysing the Cash Flows of Growth Businesses

Level advanced – this chapter defines the term 'growth' and presents the information required to comprehensively analyse the cash flows of a growth business.

Chapter 8 – Growth and Mature – Further Analysis Issues

Level advanced – this chapter presents two important further issues relevant to the analysis of both growth and mature businesses.

Chapter 9 – Analysing the Cash Flows of Start-up Businesses

Level advanced – this chapter defines the term 'start-up' and presents the information required to comprehensively analyse the cash flows of a start-up business.

Chapter 10 – Analysing the Cash Flows of Decline Businesses

Level advanced – this chapter defines the term 'decline' and presents the information required to comprehensively analyse the cash flows of a decline business.

Chapter 11 – What to do about Bad Cash Flows

Level advanced – this chapter offers a variety of strategies to make decisions about cash flows that are bad. It suggests a number of questions that the analyst should seek to answer, before coming to conclusions about bad cash flows.

Chapter 12 – Cash Versus Profit as a Measure of Performance

Level advanced – this chapter explains in detail the differences between profit and cash generation as a measure of performance. It points out the pitfalls of using profit alone as a performance indicator.

Chapter 13 – Cash Flow Analysis and Credit Risk

Level advanced – this chapter explains how to tailor the cash flow analysis technique offered specifically to the needs of bankers and others who are exposed to credit risk.

Chapter 14 – Cash Flow Analysis and Performance Measurement

Level advanced – this chapter looks at ways the cash flow analysis technique offered in the book can be used for business performance measurement.

Chapter 15 – Analysing Direct Cash Flow Statements

Level advanced – this chapter deals with the differences between direct and indirect cash flow statements and how to deal with them in applying the cash flow analysis technique. It is necessary to be familiar with the earlier content of the book in order to get the most out of this chapter.

Chapter 16 – Generating a Cash Flow Summary from Profit and Loss Account and Balance Sheet Data

Level advanced – this chapter illustrates how to arrive at a summary of the cash flows of a business entity that does not produce a cash flow statement as part of their financial information. It is essential to be familiar with all the earlier content of the book in order to get the most out of this chapter.

Chapter 17 – Summarising Historic Free Cash Flow

Level advanced – this chapter illustrates how to identify the historic free cash flow of a business entity from the cash flow information derived by using the cash flow

analysis technique presented earlier in the book. It is necessary to be familiar with the earlier content of the book in order to get the most out of this chapter.

Section Two – Forecasting Cash Flows

Chapter 18 – Introduction

Level advanced – this chapter discusses the risks and benefits of forecasting when compared to the analysis of historic information.

Chapter 19 – Spreadsheet Risk

Level advanced – this chapter introduces spreadsheet risk and offers strategies to minimise the problem.

Chapter 20 – Good Practice Spreadsheet Development

Level advanced – this chapter introduces a number of techniques to reduce spreadsheet risk through good modelling practice. It illustrates four examples of common cash flow forecasting models.

Chapter 21 – The Use of Assumptions in Spreadsheet Models

Level advanced – this chapter offers guidance on dealing with assumptions in spreadsheet forecasting models. It then discusses the use of scenarios for risk analysis using spreadsheet forecasts.

Section One
Historic Cash Flow Analysis

1

Understanding How Cash Flows in a Business

INTRODUCTION

This chapter is designed to enable those with less direct experience of the operation of businesses to grasp the fundamental financial and economic logic that governs how successful businesses operate. It represents the starting point for our journey through the landscape of cash flow analysis. In order to gain benefit from this chapter no prior knowledge of either cash flow or business is required.

We start our journey by developing a model of how the cash flows in a simple business work. We then develop our knowledge of cash flows by incrementally adding complexity to this model.

Whilst developing this model based on the cash flows of a business we also introduce some fundamental logic about what different types of business must do in order to be successful.

THERE IS NOTHING NEW ABOUT BUSINESS

Humans have been engaging in trade for thousands of years, initially through some sort of barter process. Archaeologists have discovered ancient manufactured goods such as pottery and metal objects that have travelled vast distances from their point of manufacture. There are numerous examples of early Greek and Roman shipwrecks being discovered in many different parts of the Mediterranean dating back 2000 years or more. In the 1960s evidence was finally discovered that proved that the Vikings were the first Europeans to discover America some 500 years before Columbus. The remains of a Norse settlement at L'Anse aux Meadows on the northern tip of Newfoundland have been authenticated and dated to around 1000AD. During the excavation of the site over 100 objects of European manufacture were unearthed.

A more recent development in human history was the introduction of money in the form of coinage and, later, notes. Whilst there is much debate about what should be recognised as the first coin, a good candidate would be a small lump of electrum (a natural alloy of gold and silver) stamped with a design and minted around 600BC in Lydia, Asia Minor (now known as Turkey). Paper money seems to have emerged in China at about the same time.

This innovation, together with many others such as agriculture, settlements, the wheel and writing led to the modern, technologically based world economy we have today. Trade or business, in one form or another, has probably been part of the human condition from our earliest origins.

UNDERSTANDING MONEY IN BUSINESS

We are going to start with two simple examples of business activity. The first one represents one of the simplest forms of business. (More complex business examples follow over the next few pages.)

The Simplest Form of Business

Newspaper vending, by which I mean the activity of selling newspapers to passers-by on a street corner, is a good example of a really simple business. The vendor, or businessman, buys the newspapers from the publisher or a wholesaler and then retails them to passers-by for a price that gives him a margin over the cost of purchasing the newspapers.

A second example of a really simple business is an antique dealer, someone who buys and sells old objects. We will work with this example from now on.

The Debate About the Purpose and Objectives of a Business

The varying cultures around the world place different emphasis on how the benefits generated by a successful business should be shared amongst its stakeholders. I do not propose to examine the merits or otherwise of these views. There is considerable literature on what measures should be used to assess success or failure in business. Both growth and profit increase look like good candidates but fail as measures of success if the improvement in growth or profits is achieved by investing disproportionate amounts of cash. I do not propose to go much further with this debate other than to say that increasing the value of a business over time is now considered the most appropriate measure of success. This is achieved by continually improving the present and future cash flows of a business on an ongoing basis.

So, at this point in my explanation, I am assuming that the business I am describing is being run with the objective of wealth maximisation for the owners. For the purposes of this book I define that as maximising the future cash flows of the business.

The Objective of Being in Business is to Generate *More Cash*

It is important to introduce the purpose of a business here because specifying the objective of the business defines the task of the business person, entrepreneur, manager or other business controller (which is to get *more cash*). In both the business examples introduced so far we have a trader or dealer who buys and sells, typically without changing or modifying the items traded in any way. This is the simplest form of business.

The trader's objective is to generate more cash than they started with. (Note that I have not used the terms *profit* or *gain* as we are developing a model containing only items that represent the cash flows in a business. What we mean by profit is actually quite an abstract concept. This is dealt with in more detail in Chapter 12.)

How Does a Trading Business Add Value?

An initial observation might be that these businesses make money by buying things for less than they can sell them. While this is an accurate observation of what a successful trading business does, this fails to explain why or how the business is able to achieve this beneficial outcome.

What is the key skill for an antique dealer? Is it knowledge of the antiques traded in? Whilst this may help, much of this information is available from books. Is it renovation skills? Again this may or may not add value to the items being renovated depending on consumer taste at the time. The key skill is probably, knowing where to buy cheaply and where to sell expensively. Here is an example of what I mean.

For many years the typical vehicle of choice for a British antique dealer has been the Volvo estate, which is used to travel to distant parts of Scotland and Wales so that the dealer can purchase furniture and other antiques from remote house sales and auctions where they are often sold cheaply. The goods purchased are then transported to London where they can be auctioned through the major auction houses or retailed to wealthy collectors at collectors' fairs or from retail premises.

What this antique dealer is doing is relocating the goods traded from a place where they can be bought cheaply to a place where they can be sold more expensively. It's all about the relocation of the goods. Why is this so important?

Consider what happens when you get up in the morning. Do you travel to Java for your coffee beans, Florida for your orange juice, Jamaica for your sugar, and to your local farm for your milk?

This is unlikely. What most of us do is go to the nearest convenience store, which may be just down the street and buy what we wish to consume for our breakfast. So, what then is the owner of the convenience store doing to add value? What he does is relocate a range of goods he knows we are likely to consume for

breakfast to a place convenient for us to make our purchases as consumers. The convenience of the location is the most important thing, the goods offered are in a sense irrelevant, they are whatever we want to consume.

So, the key to most trading, retail and wholesale businesses is location. What these businesses do is relocate goods from their places of production or, if second-hand, their present location, to a location convenient for the target consumer to consume them. It follows that there is little point in locating a business in a remote part of the world as there are few consumers there! The ideal location for newspaper vending is directly outside a major railway station in central London or any other major city in the world, this is where you will have thousands of potential consumers passing by every hour of the working day. In other words, you will sell more newspapers. The location is the essence of the business's ability to generate cash.

So, the cash flows of our simplest business look like the model shown in Fig. 1.1. Overheads is the term commonly used in business to refer to all the costs of trading other than inventory costs.

Using CASH the trader makes purchases of goods, which he holds as INVENTORY. Some time later he resells the goods acquired for more than he paid for them, receiving cash in exchange for the items. He will typically incur some OVERHEADS in the process, in our example of the antique dealer these will be transport, location and communication costs.

This is effectively all a trading, retail or distribution business does, repeating the journey round the circle many times. Now let us look at a more complex business, one where work is performed on the purchased inputs of the business.

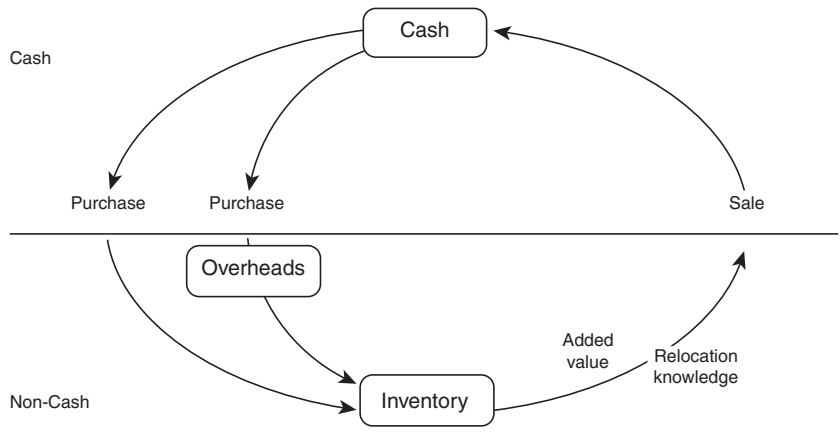

Figure 1.1 Diagram of the cash flows of a simple trading business

THE SIMPLE MANUFACTURING BUSINESS

In my other life as a financial trainer I have travelled all over the world offering training seminars on financial analysis and related subjects. One of the places I have visited on my travels is Nairobi in Kenya. When travelling from Nairobi airport to the training location I noticed business people selling beds and other simple items of furniture outside their workshops by the side of the road. This then is the next example we will examine; a simple manufacturing business.

How Does a Simple Manufacturing Business Add Value?

What do manufacturers do to create wealth for themselves? They take raw materials and change them into something more useful; economists talk about adding utility. For example, I could sleep on a log. However, this would not be particularly comfortable, the bark would make my back itch and I might roll off! If the log is cut up into timber and then turned into a bed frame I am likely to be willing to pay more for it in this form. Now, I could of course do this myself with the aid of a saw and a few basic woodworking tools, so why do I not normally bother? There are three reasons: time, quality and cost. I could make the bed, but it would take me three days whilst the manufacturer does it in half an hour. Secondly, the result I achieve might not have the quality of the professionally manufactured alternative and, finally, it would almost certainly be more expensive when the opportunity cost of my time as well as the cost of the raw materials is taken into account.

So, manufacturers do not just convert things (raw materials) into more useful things (finished goods), they are experts at the process of doing so. Successful manufacturers do it very quickly and efficiently to a very high standard. The key word here is *expert*. If you are analysing the performance of a manufacturing business and find that it receives many customer complaints and returned goods due to manufacturing defects, or is experiencing significant difficulties actually producing goods, this suggests they are not experts. To use a metaphor: it implies they are amateurs rather than professionals. Any business being operated in a non-professional way is at a higher risk of poor financial performance and eventual failure than its more professional and competent competitors. The extreme levels of professionalism required just to be competitive in most manufacturing activities is simply a consequence of competition over long periods of time.

So the cash flows of our simple manufacturing business look like the model shown in Fig. 1.2.

Using CASH the manufacturer makes a purchase of RAW MATERIALS and does work on them, so converting them to WORK IN PROGRESS and eventually FINISHED GOODS. These items being akin to INVENTORY in our previous model. Some time later he resells the finished goods for more than the cash costs of producing them, receiving cash in exchange for the items. He will typically

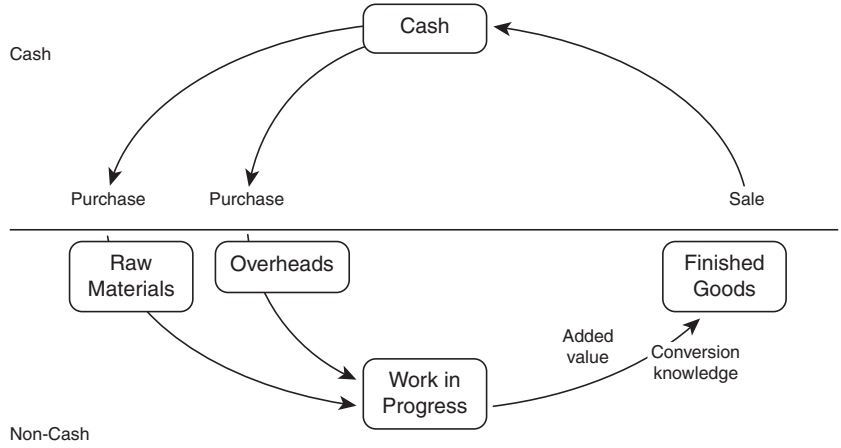

Figure 1.2 Diagram one of the cash flows of a manufacturing business

incur some OVERHEADS in the process of conversion, these being purchasing, manufacturing, premises, and selling costs in our example.

This is what the cash flows of a new small manufacturing business look like. Cash is generated by repeating the journey round the circle many times. Now let us see how this develops as the business evolves over time.

Developing Our Model – the Next Step

Continuing with our example of an African entrepreneur who has recently established himself as a manufacturer of furniture, let us assume his new business is successful. Our entrepreneur is working many hours a day and all the product he produces sells well. What is likely to be his first major issue in developing his business?

Given his location his next move is most likely to be adding labour to the business to increase output and hence cash flow. This is because there is much labour available and, given the emerging market location of the business, this labour is available relatively cheaply (Fig. 1.3).

LABOUR now joins overheads as an item purchased and consumed by the business to add value to raw materials.

If our entrepreneur furniture designer was in Munich in Germany the decision might be quite different. In this location the economic environment is different to that in Nairobi in Kenya. In Germany labour costs are significantly higher per hour and employees are protected in many ways by a mass of social legislation

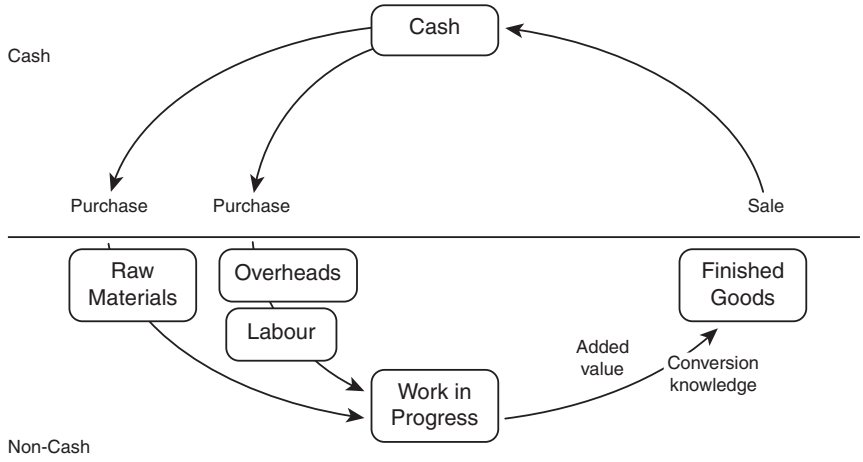

Figure 1.3 Diagram two of the cash flows of a manufacturing business

giving them extensive rights and obliging employers to compensate employees in the event of job losses. From an economic point of view the cost of labour is higher and the cost itself is less variable. In Germany the first major initiative to build our business is more likely to be the purchase of machinery (i.e. fixed assets) to increase output and hence cash flow, rather than the addition of more labour (Fig. 1.4).

Why is the decision different depending on the location of the business? This is because the economic environment is different. Factors that affect the decision of whether to employ labour or purchase fixed assets would be things like, the law and regulations affecting the cost and flexibility of labour, the local environment governing labour and investment in fixed assets, and the availability and quality of labour.

There are other issues that might inform or determine the decision. Machines have certain characteristics that could arguably make them superior to labour in many situations. They do not go on strike; they can, assuming they are properly maintained, produce a succession of perfect and identical output 24 hours a day without requiring sleep or food. But, there are also some key negative characteristics of machines. They usually require infrastructure such as electricity, gas, compressed air and water constantly available without interruption. They are very good at doing the same thing again and again; they are not so good when the required output keeps changing. Any change to the product manufactured may necessitate hours of re-engineering and re-programming of the machine before productive output recommences.

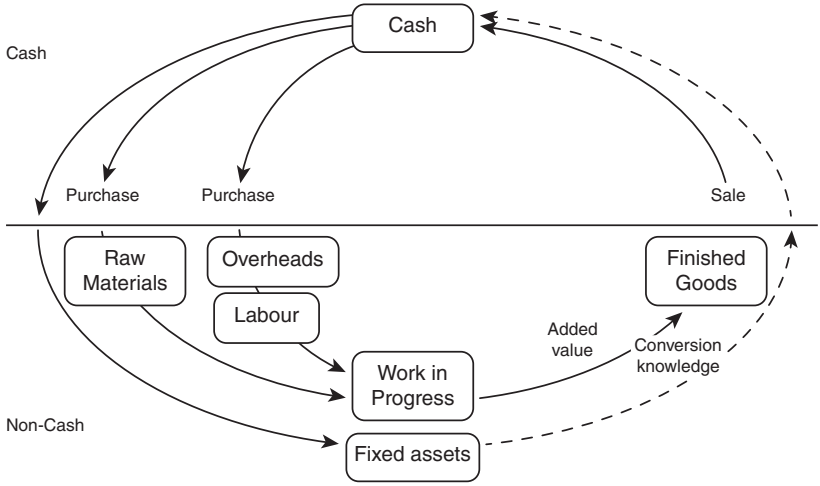

Figure 1.4 Diagram three of the cash flows of a manufacturing business

Labour, despite its imperfections, is very flexible. It can make the tea, collect the raw materials, deliver finished product and paint the wall, in addition to being available to produce product as required. It copes well with a succession of variable tasks. The negatives are that it can go on strike, it requires a safe and healthy working environment and protection from the risk of injury or death (known collectively as health and safety). It also needs constant breaks for food and rest, and it can produce substandard and defective work if not properly trained and supervised.

So, labour is flexible but inconsistent, machinery is inflexible but consistent. As our example business grows, whether situated in Kenya or Germany, labour and fixed assets will be added as required according to their relative utility to cost in the local environment.

You may have noticed the use of a dotted line to denote the sale of fixed assets. This is because when we acquire fixed assets we intend to keep them to assist us in the process of producing or trading our goods and services. We do not intend to sell them or trade them during their useful lives. Only when they are no longer of operational use to us do we sell them if we can. The cash flow we get when we sell them is usually small relative to the cash flow spent on new assets.

The Consequences of Growth and Success

As the business develops it becomes more complex, typically because growth means an increase in everything. The numbers of labour, machines, products,

customers and suppliers can all increase. With this complexity comes new risks. When a business is small it can be controlled by one person. As it grows this becomes more and more difficult because too many things that require control are happening simultaneously. Delegation of authority to others is required, which implies the creation of a management structure.

Similarly the cash flows involved in the business all get larger. Turnover, costs, investment, debtors and creditors all increase. At this point it is sensible to consider limiting the risk of the owner. How can this be achieved?

The owner can sell the business to a limited company owned by him or herself. Until this point our example business has been trading as a sole trader. In English law there are three different ways a person can trade, as a sole trader, as a partner in a partnership and through the use of some sort of company owned by the person.

As a sole trader or partner an individual's risk is unlimited. Should there be any negative event that results in significant liabilities for the business in which they are involved, the sole trader and any partner are personally liable for the full amount. Should a business operating as a limited company suffer an event that leads to huge liabilities the company itself is the party responsible for the liabilities, not the owners. The owners are only liable to the extent they have subscribed for shares, (in other words they may lose the equity they own in the company). As long as the directors have acted lawfully they cannot be made personally liable for the liabilities of the company. This means if the company collapses into bankruptcy the director owner can keep his house, pension fund and other personal assets that are separate from the limited company in which the business resides.

So, from a risk management viewpoint, are companies a good idea or a bad idea? For society as a whole they appear to be a good idea, partly because they facilitate the pooling of investment for new projects. A developed nation has extensive infrastructure in the form of roads, railways, airports, pipelines, communications, electricity and oil and gas infrastructure which requires the capital of hundreds of thousands of individuals to create. By issuing shares to millions of people, each of which is a part owner of the business, these beneficial assets for society can be created and maintained. They also encourage risk-taking in the form of new business creation because entrepreneurs can protect their personal assets by using a limited company as the vehicle for their new ventures.

The negative aspects of companies arise if you are a creditor of a company. Banks, suppliers and employees lose money when companies fall into bankruptcy. In extreme situations a limited company can be used deliberately to acquire the cash flow of a business, which is then stolen by the owners. This is of course criminal and fraudulent. This is why it is essential that stakeholders who are creditors monitor the creditworthiness (or credit risk) of any company they are involved with as a creditor.

Figure 1.5 introduces equity (and debt) to the model.

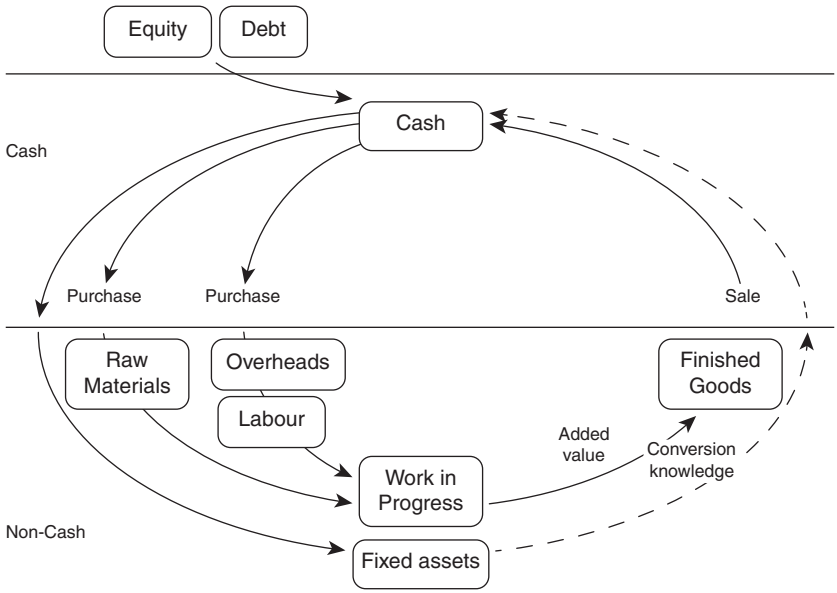

Figure 1.5 Diagram four of the cash flows of a manufacturing business

The business is now owned by an independent legal entity (a company) that is separate from the person or persons who formerly owned it. Their interest is represented by their shareholding in the EQUITY of the company. The company may also have raised cash to invest in the company by borrowing, perhaps from a bank, which is recognised in Fig. 1.5 as DEBT.

Debt, in the form of loans or leases may be used by the company to acquire fixed assets such as factory premises and machines. Debt may also be used to provide working capital in the form of an overdraft facility or via the use of factoring or invoice discounting.

Having introduced these new sources of capital we need to add further items to the model to keep it consistent with reality. Cash borrowed from banks is not lent for nothing. Banks charge INTEREST (essentially a rent) for the period that the money is advanced to the borrower. Similarly, if the company is successful it may pay DIVIDENDS to its shareholders. Finally, most governments demand that the company pay TAXATION on any taxable profits from trading or other investment income generated by the company.

These potential cash outflows do not represent operating costs because they arise for reasons that differ from the other cash outflows required to operate the