

Using Case Studies in Accounting: a case study of the challenges confronting lecturers

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Context

There is no universally accepted definition of a “case study”. Percival and Ellington (1980) define it succinctly as “an in-depth examination of a real life or simulated situation carried out to illustrate special and/or general characteristics”. Smith (1987) explains the role of the case study in business education as follows:

“The case study in this context refers to a description of situation which exists or existed within an organisation. It is a learning method which, by depicting or attempting to approximate real situations, allows for analytical skills to be practised. It is widely accepted as a means of improving the skills of problem solving and decision making. Moreover, learning from mistakes using case studies is less costly than learning from mistakes in a real business situation”.

The author of this paper leads an accounting option unit at London Metropolitan University (city campus) titled “Integrative Case Analysis”, offered to students studying accounting in single or joint honours programmes. The module is delivered entirely through a series of case studies. The assessment is based on two case studies, one used for coursework, the other for the examination.

The unit is integrative in that the case studies bring aspects of financial and management accounting, financial management, strategic management, corporate governance and sometimes issues concerning law, taxation, internal control, management information systems and management into each case study, united by a story linking all the accounting aspects together. Examples of the accounting aspects utilised in the case studies are break even analysis, absorption costing and activity based costing from management accounting; cash and profit forecasting and a variety of financial reporting issues from financial accounting, project appraisal, company valuation and merger/take-over from finance; a full list of the usual strategic management models.

The unit is intended as a final semester offering by which time students would normally have studied many of the core modules in an accounting programme. Some of the core units (such as strategic management and management information systems) are being studied concurrently with the case study unit. Accounting specialist students may perhaps consider that there will be little “new material” in the unit, whereas joint accounting students find that the integration process enables them to study a broader range of accounting in the case studies than their degree programme would otherwise allow. It is simply not possible for the joint honours student to fit finance, strategy, audit etc into their limited accounting programme. Also, while case studies are used elsewhere in the specialist accounting programmes, they are not enriched to the extent that this unit develops them.

However, the challenge is that the joint accounting student is expected quickly to master principles and theories of some accounting units that have not been previously studied and then apply that learning in the case studies. Extensive reading references are provided at the start of the unit to assist, but some teaching is still required to enable these students to master the new material. The unit leader is conscious that further strengthening is required in the future for such students.

Framework of case studies

How do the definitions of “case study” above pertain to the collection of cases used in this unit? The case studies are in-depth in that they comprise several pages to perhaps twenty or so pages, many with several appendixes containing financial statements or other numerical/written data. Some are real-life situations, although for confidentiality reasons, names are sometimes changed. Others are simulations, but some of these are fusions of two or more real life situations into one case study. The case studies all describe past events, but this should not be taken as a weakness or irrelevance because they all offer stimulating learning that is applicable to a student’s future. A key feature of the case studies, the development of analytical skills, however, is absent from the Percival and Ellington definition. Skill development is discussed later below.

Scapens (1992) divides case studies into five groups:

1. Descriptive case studies portraying accounting systems, techniques and procedures currently used in practice.
2. Illustrative case studies showing new or innovative practices.
3. Experimental case studies that help accounting practitioners.
4. Exploratory case studies putting forth reasons for particular accounting practice.
5. Explanatory case studies providing reasons for observed practices.

The case studies referred to in this paper are sometimes descriptive in that management information systems and deficiencies in financial accounting reporting practice are discussed. Perhaps less frequently they are illustrative in showing intangible fixed assets on the balance sheet prior to the introduction of Financial Reporting Standard 10. However, these case studies are written to develop analytical skills of undergraduates. The Scapens division is used for research purposes at postgraduate level and therefore this framework is only partly relevant.

A more useful framework is a Venn diagram by Ellington (2002) that classifies exercises by function. This diagram identifies pure games, pure simulations and pure case studies with hybrids consisting of two or more of the pure elements. The case studies referred to in this paper are primarily pure case studies, although an element of simulation may exist in some case studies in that some or all of the case is fictitious.

The author offers his own framework for categorising case studies at undergraduate level:

- A common practice in accounting is that academics write a mini case study in an assessment exercise. These may appear both in coursework and in examinations. They appear to be particularly used by audit lecturers where a sequence of events is designed and students are required to identify internal control weaknesses. This type of case study will be referred to as scenarios, which Svenson (1996) characterises in terms of their use of short, pinpointed statements. There is usually no attempt to build skill development into the scenarios, hence they should be distinguished from the case studies referred to in this paper.
- Other academics utilise written-up case studies in textbooks and journals to explain management styles, such as leadership. Such case studies correspond with what Scapens (1992) refers to as explanatory case studies.
- Lastly, there is the case study that has been deliberately written for skill development purposes (see Rippin *et al.*, 2002). Integrative case studies are simply a subset of this category, combining analytical skills with a range of subject-related issues.

Teaching Methodology

Students need to be taught analytical techniques to deal with the complexity of case studies. They are frequently not written in a chronological time order and many also put the organisation in an industry trend setting. The student may well be confused and lost in the detail. To help the students develop their analytical abilities, the initial case is analysed using a relationship diagram, simple arrows showing a sequence of events. The case may need to be broken down into two or more such diagrams. Scapens (1992) notes that various themes and patterns may emerge (see the

appendix for the relationship diagram as applied to the initial case study). This assists the students to see how one part of the case study relates to another part and clearly aids analysis. Modelling the analysis in this way is essential, as the case studies subsequently become longer and more complex in the course.

From the outset, the case studies are given out a week ahead of their use together with the questions that apply to that case study. In preparation, students are asked to both read the case and analyse it as far as possible, but not necessarily to attempt fully to answer the questions. It is a waste of valuable contact time if students were to read the case at the start of the workshop each week. Given that today's students need to work during term time to finance their undergraduate studies, the level of preparation attained is not always as thorough one would have wished.

Students are encouraged to work in groups outside class and within the class. But often little is achieved outside the class. The workshop and the case-study task is supposed to be student centred, but the author would agree with Argyris (1980) that it is far more staff centred. Nevertheless, this does not mean to say students are not learning analytical skills. The results seem to suggest that most are benefiting. A reason put forward to explain the switch to a staff-centred style is that the unit leader is very familiar with the case and therefore tends to pace the whole class with the pace of that familiarity. Students are then able to complete at least one lengthy case in a workshop. Students may actually find that their own pace of learning is a disincentive given that their study time is short. Furthermore, students cannot be expected to be proficient in analytical skills early in the course; it takes time to acquire them. The aim is to develop over a fifteen-week semester. Yin (1984) commented that case studies are regarded as a soft touch, but paradoxically they are harder to analyse.

The case study used for coursework is given to students in week one together with its related questions. There are typically five questions to each case and all are compulsory, but usually for differential amounts of marks. Some of the questions are easier to anticipate from the case, but others are more difficult to predict, particularly given the precise requirements of the question. It has been found that this balance of questions provides an adequate distribution of marks over the cohort. The work must be completed for hand-in towards the end of the course, but allowing sufficient time for the unit leader to complete the marking and provide detailed feedback prior to the examination. The cases used for coursework are thought to be a little more difficult than the case used for the examination as the students have more time and the facility to work in groups, although their work must be seen to be their own written version.

The exam case study, but not the question paper is given out at least two weeks prior to the examination date, usually the last time the class meets. Students are encouraged to discuss the case amongst themselves, but strictly not with any staff.

They must bring the original exam case study, but without any additional sheets or other aids to the examination room. They are allowed to annotate their copy of the exam case study, although not much clean sheet space is provided for that purpose. The unit leader noted in the examination room that the annotation skill varied widely and has resolved to improve that particular academic skill in the next offering of the unit. Poor annotation can be assumed to lead to a weaker exam result.

Skill Development

Certain subject areas are highly content centred. This is particularly true of accounting, which is saturated with its accounting standards and accounting theory. But it also entails cognitive skills of the kind being developed in these integrative case analyses. They require students to analyse, synthesise, evaluate and solve problems. For example, in the case study shown in the appendix, after preparing the cash forecast students must recommend a solution to the shortage of finance. The development of these “key skills” is advocated in government policy on higher education (NCIHE, 1997), but the challenge is to develop the capacity of skills transfer (Cann, 2001; Gillespie, 2001; Macdonald, 2001). However, case studies do provide a forum where such process skills are transferable (Ellington, 2002).

The use of case studies as a teaching and learning tool enables the development of cognitive skills for transfer into employment and beyond. Another advantage of this method is that it is less costly to make mistakes in case analysis than in real life. Furthermore, some students may choose to undertake further management study (such as an MBA) where experience of case analysis at undergraduate level will prove valuable in coping with masters-level studies.

Conclusions

There is a danger that the high content load of academic programmes such as accounting leaves little room for skill development. In addition, teaching staff in academia often lack training in the art of skill development. However, the case study approach can provide a way to integrate skills with content, as well as linking different bodies of knowledge. More scope appears to exist to exploit skill development on a joint honours programme, although on a specialist programme there ought to be more scope since the relevant department has full control of the entire course.

There are different types of case studies serving different purposes, ranging from descriptive to explanatory. Integrative case studies offer a vehicle for developing analytical skills, with modelling by the tutor, although there is the issue that the workshop may become unduly staff centred. Cognitive skill development takes considerable time for students, but such skills are transferable to employment and beyond.

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Biographical note

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APPENDIX – example of a case study in accounting

PROFESSIONAL SOFTWARE TRAINING LTD (A)

(This case study is based on an actual company and an actual person. The figures have, however, been simplified).

On a bleak January day in 1993, Debbie Carter was informed that the company she was working for, S.G. Ltd, had gone into receivership. This was not the first time that this had happened to her but this time she resolved to do something about it. She, at first, attempted to buy the shell of the company from the receiver but when that failed she decided to start her own business from scratch.

Debbie Carter

Debbie Carter had had little formal education or business training. Born in a large northern city, the daughter of a fruit and vegetable merchant, she had left school early and, after a variety of jobs – including croupier on a ship, bailiff and publican – had been recruited as a salesperson to sell computer training courses for a company in Milton Keynes. She had, at last, found her métier. Customer orientation was part of her very nature. She conceived selling as finding out the requirements of the customer and then fulfilling them. She was passionately concerned with quality. She wanted to provide her customers with so good a service that they would come back time and again. After a time in Milton Keynes, Debbie hankered after her home. She was offered, and accepted, the job of setting up and running a training division for a group of computer companies, BECS, in her home city. This was the first of her employers that went into receivership. Subsequently, she was employed by S.G. Ltd in a similar role in which she was highly successful, but then came January 1993.

The Computer Training Industry

(Information taken from Key Note Report on Computer Services 1993)

Computer training is part of the overall computer services industry which was a market worth almost £4.5 bn in the UK in 1992. In the later 1980s, the market was growing at annual rates of up to 30% but this growth has slowed dramatically since then, being about 5.5% between 1991 and 1992. Training is one part of the total industry, the other parts including bespoke software, bureau services, systems integration and hardware and software maintenance. Obviously, some firms offer more than one service. In total, there were 39,485 computer service companies in the UK in 1992. The top 300 companies, however, most of which are members of the Computing Services Association, dominate the industry. According to Key Note “The best performing sectors of the market in recent years have been facilities management, software, systems integration and consultancy. Systems integration,

education and training and consultancy have been hard hit by the recession which resulted in a reduction in the number of new IT projects started and a reduction in IT staff. In future, Key Note expects the service market to grow by 65% between 1992 and 1997. The fastest growing sectors will be facilities management, systems integration and consultancy”.

PST is Set Up

Debbie had, of course, no experience of setting up a business. However, her father, himself a businessman, was a great help to her. Among other things, he introduced her to his accountant who became Debbie’s own accountant. Debbie’s greatest asset was the relationship she had established with her customers while working for S.G. Ltd. The list was impressive and contained many prestigious names. They had great faith in her to deliver. Probably, if she changed from one firm to another, they would follow her. Debbie explained various possibilities of business form including co-operation agreements with established training organisations but, in the end, came down on the side of independence. She also looked into various forms of financing and was disappointed to find that, although she was operating in a development area, grants were not as freely available as one was led to believe. Her company, Professional Software Training Ltd, was actually formed and started business on 8 March 1993. There were two shareholders – Debbie and her father, who agreed to act as Company Secretary. At first the company operated by hiring hotel conference facilities in which to conduct its courses. However, Debbie eventually managed to obtain sufficient finance and the company moved into its own premises on 1 October 1993.

Debbie had virtually no money of her own but managed to raise £5,000 by remortgaging her house. For the rest of the money, the Nat West Bank suggested a Department of Trade and Industry Small Business Loan. The bank agreed a loan of £11,500 of which 70% was underwritten by the DTI, that is to say, if the business failed and the money was lost, Debbie would only have to repay to the bank £3,450. The finance was negotiated in late September. The interest rate was 8%. The loan had to be repaid at the rate of £200 per month, starting immediately.

Debbie negotiated to lease self-contained premises at a local technology park. The lease had only a short time to run – nine months – so she was able to obtain it for £850. The monthly rental was £560 and in addition there would be other costs of £249 per month. The premises allowed space for three classrooms in addition to the usual administrative and reception areas. A dining room for the course participants was also provided. Outside the premises was ample parking facilities for the course participants. The premises were tastefully decorated in the white and green colour scheme which Debbie had adopted as the company style. It was used in all publications and the staff wore a smart uniform in these colours. The cost of refurnishing the premises was estimated to be £6,562. Twenty PCs and ancillary

equipment were to be hired at a cost of £1,000 per month. Debbie planned to employ four people full-time. Denise, who would deal with administration, assisted by Cerian, Paul who would assist Debbie with sales and Sharon who was on a Youth Training Scheme. The company's total monthly employment costs (including her own salary) she estimated to be £3,845. The actual trainers who conducted the classes were all free-lance and were hired at between £174 to £400 a day, depending on the complexity of material they were teaching. Debbie worked on the basis that, on average, trainers would cost £300 in total per day for twenty days a month. Other operating costs of the company were expected to be £810 per month for Catering and £2,363 for all other expenses.

Debbie planned to run a wide range of courses for most of the leading software packages covering word processors, databases, spreadsheets, integrated packages and desk-top publishing. Courses open to the public were to cost £140 per person per day. Company course were to cost between £475 and £700 a day depending on the number of participants. In addition, there was to be a discount scheme for major users offering discounts to from 15% to 40%. The company was also to offer a "Hotline Support" system at £250 per software product per year. Debbie expected that the number of people on courses at any one time would be six. Customers were to be invoiced when they made the booking but, for budgeting purposes, Debbie expected to receive payment 28 days after the course.

REQUIRED

Put yourself in Debbie's position in late September/early October 1993. Prepare a cash budget on a monthly basis for the first three months.

Suggested Answer

(the Relationship Diagram is at the end)

Assumptions underlying the Cash Forecast

1. Any outstanding debtors from training events held in hotels are ignored. These will have the effect of making the overdraft appear larger than reality.
2. It is assumed that there are no unpaid bills from trading at hotel premises.
3. The cash forecast effectively treats the acquisition of the business premises and the necessary finance for this as a new business, but PST actually started business on 8 March 1993 not 1 October 1993.
4. Any opening cash balance at 1 October 1993 is ignored whether a surplus or deficit. It is more than likely that there was a positive balance at that date as there is no suggestion of any financing between March and October. Again this tends to make the forecast appear worse than the reality.

5. It is assumed that the mortgage on her own home and the bank loan were both received on 1 October 1993.
6. It is assumed that the debtors pay their invoices in 30 days. (not 28 days)
7. It is assumed that all expenses can be conveniently divided between regular monthly amounts and the one off expenses associated with the start of the business premises.
8. It is assumed that the payments for the lease £850 and the furnishing cost are paid on 1 October 1993.
9. It is assumed that the lessor has allowed the refurbishment work to be carried out in late September without any payment for rent whilst work ensues.
10. It is assumed that the premises are immediately used for training sessions from 1 October 1993.
11. It is assumed that the expenses of monthly rental, other occupancy costs and the PC hiring costs are paid monthly in advance, that is on the 1st of the month.
12. It is assumed that all trainers are paid immediately once a training session has been completed.
13. It is assumed that all other regular expenses- labour, catering, other operating expenses, bank interest and the bank loan repayments are paid on the 30th of each month.
14. It is assumed that all months have 30 days.
15. It is assumed that there are no other receipts or payments.

Workings to the Cash Forecast

1. Bank interest
£11,500 loan @ 8% pa, divide by 12 months = £77 per month.
2. Training Costs
Debbie's assumption of £300 per day for 20 days working in a month = £6,000 per month. This assumption simplifies the cash forecast from the actual complex cost of training.
3. Receipts from Debtors
Debbie's assumption 6 people on courses all the time multiply by £140 per day £840 a day multiply by 20 working days a month = £16,800 add £1,200 for the hotline = £18,000. Payable after 30 days.

Cash Forecast for the 3 months to the end of December 1993

Cash Flow	October	November	December
Receipts			
Mortgage Loan	5,000		
Bank loan	11,500		
Total Finance	16,500		
Receipts from Debtors	-	18,000	18,000
Total Receipts	16,500	18,000	18,000
Payments			
Lease	850		
Furnishing	6,562		
Total one off payments	7,412		
Regular Payments			
Rent	560	560	560
Other Occupancy Costs	249	249	249
PC hire	1,000	1,000	1,000
Labour	3,845	3,845	3,845
Catering	810	810	810
Other operating Expenses	2,363	2,363	2,363
Bank Interest	77	77	77
Bank Repayments	200	200	200
Trainers	6,000	6,000	6,000
Total Regular Payments	15,104	15,104	15,104
Total Payments	22,516	15,104	15,104
Deficit/ Surplus	<6,016>	2,896	2,896
Balance b/fwd	-	<6,016>	<3,120>
Balance c/fwd	<6,016>	<3,120>	<224>

Revised Cash Forecast taking account that Debtors pay after 60 days and some other adjustments

	October	November	December
Receipts			
Total Finance	16,500		
Receipts from Debtors	-	-	15,120
Total Receipts	16,500	-	15,120
Payments			
One off payments	7,412		
Regular monthly payments	14,144	14,144	14,144
Extra wages	500	500	500
Total Regular Payments	14,644	14,644	14,644
Total Payments	22,056	14,644	14,644
Deficit/Surplus	<5,556>	<14,644>	476
Balance b/fwd	-	<5,556>	<20,200>
Balance c/fwd	<5,556>	<20,200>	<19,724>

Workings

1. Debtors

£18,000 has been reduced by 16%, so 84% of £18,000 = £15,120

2. Regular Monthly payments

The training costs have also reduced by 16%. £6,000 multiply by 16% gives a saving of £960. Reduce the monthly regular payment of £15,104 by 960 = 14,144

Assumption

It is assumed that the bank would not advance over £21,000 on top of the bank loan. This would be an unsecured overdraft. It is assumed that her father would either provide further finance in addition to any share capital or would guarantee the bank overdraft. Remember he has been in business for years and is probably known to the bank and it is assumed he has sufficient personal assets for PST's needs.

Monthly Profit and Loss Account

	Original Cash Forecast	Revised Cash Forecast
Sales	18,000	15,120
Less: Training Cost	6,000	5,040
Gross Profit	12,000	10,080
Regular monthly payments less training costs	9,104	9,604
Net Profit	2,896	476

Workings

Training costs were revised to £6,000 less saving of 960 = £5,040

Assessment of the financial Position

1. Lack of sufficient monthly profitability (only £476 per month) especially in the light of the necessary finance required (now £16,500 capital plus £20,200 overdraft).
2. Possible shortage of capital in the business, reliance on her father and the bank rather than her own equity. What would happen in the event of the death of her father assuming her mother is still alive? Would her mother be prepared to lend such amounts?
3. Problem is lack of cash inflow and particularly the excessive time debtors take to pay her. Could consider factoring the debts.
4. Needs to get more business from the existing trading premises without spending on advertising, as PST cannot afford to advertise. No hope of expanding across the UK as has got the necessary finance.
5. What happens when the lease expires in 6 months time- presumably more capital needed to renew it- if not why spend £6,562 on refurbishment?
6. Either the regular monthly expenses are too high or the customers need to be charged more, possibly a combination of both actions need to be taken.

Strengths, Weaknesses, Opportunities and Threats (SWOT) Analysis

Internal Factors

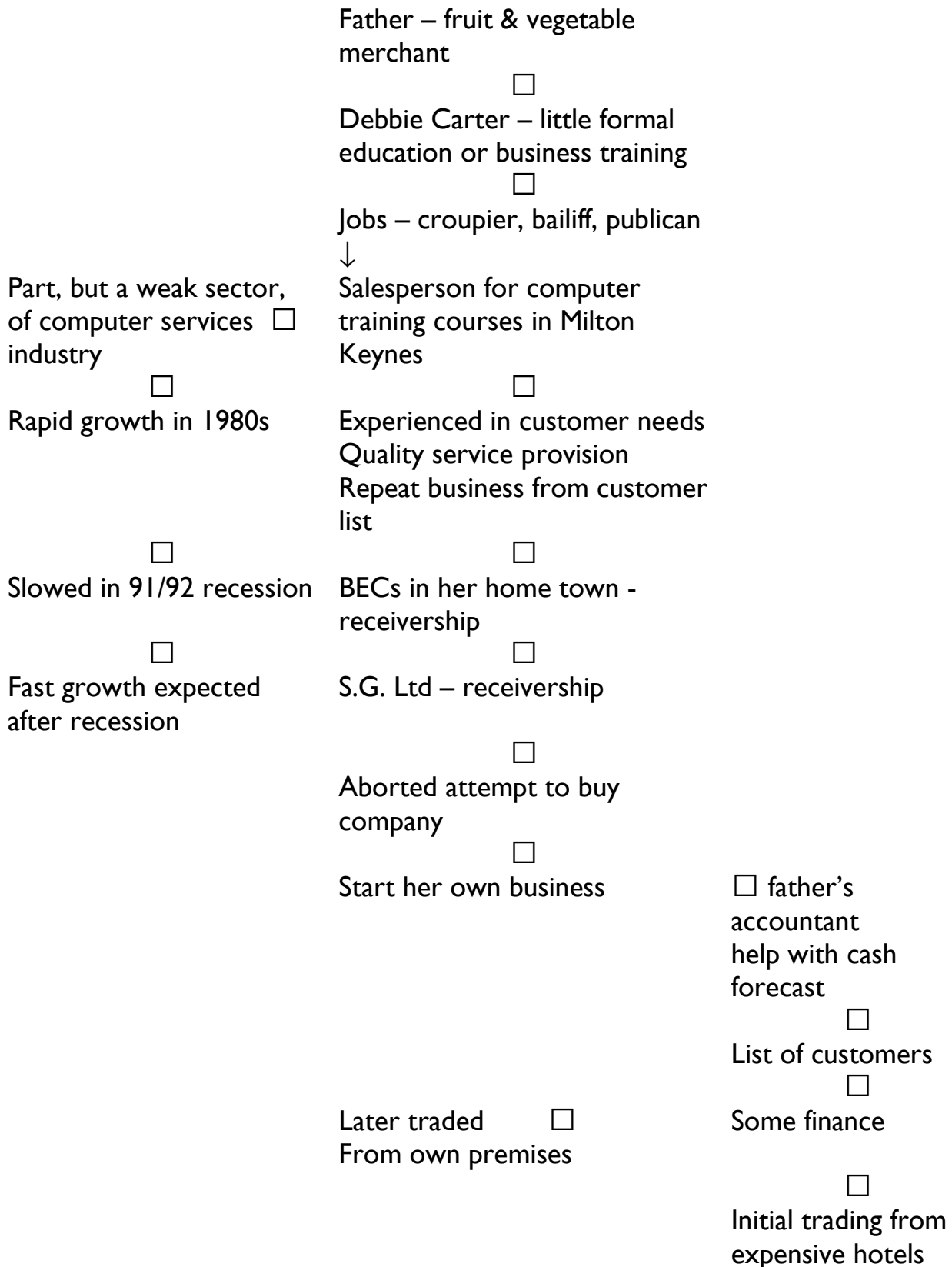
<i>Strengths</i>	<i>Weaknesses</i>
Experienced in meeting customer needs	Little education or business training
Quality service provided	Not the best section of the computer service industry to enter
Repeat business from customer list	Lack of profitability
Father's financial support	Severe financial problems
Branded business premises and staff uniforms	
Accountant's help in preparing cash forecast	

External Factors

<i>Opportunities</i>	<i>Threats</i>
Fast growth expected after the recession	The recession
	Weak economy in the North of England
	Competitor competition especially from members of the Computer Services Association
	Dominant large firms in the industry

The relationships diagram besides the cash forecast and the profit and loss account helps you to do the SWOT analysis.

Relationship Diagram



This diagram shows the sequence of events clearly. Also shows how the business concept was developed. It shows the relationships between events. Whilst having little education or training shows the importance of her skills in establishing the business.