Anatomy of a Software House

Introduction(The Company)

A Hypothetical Company

Syniad Software Ltd was founded some ten years ago by four friends and colleagues who still own most of the shares in the company;

All four are members of the Board of Directors, along with two others who were recruited later.

The company specializes in the production of bespoke software(**software solution created for a specific user)** for clients who demand work of high quality.

Demands technologies recently developed – also demands of creating new technolgies

Syniad's head office is in London. Other offices in Manchester, Delft, Netherland

Company Structure
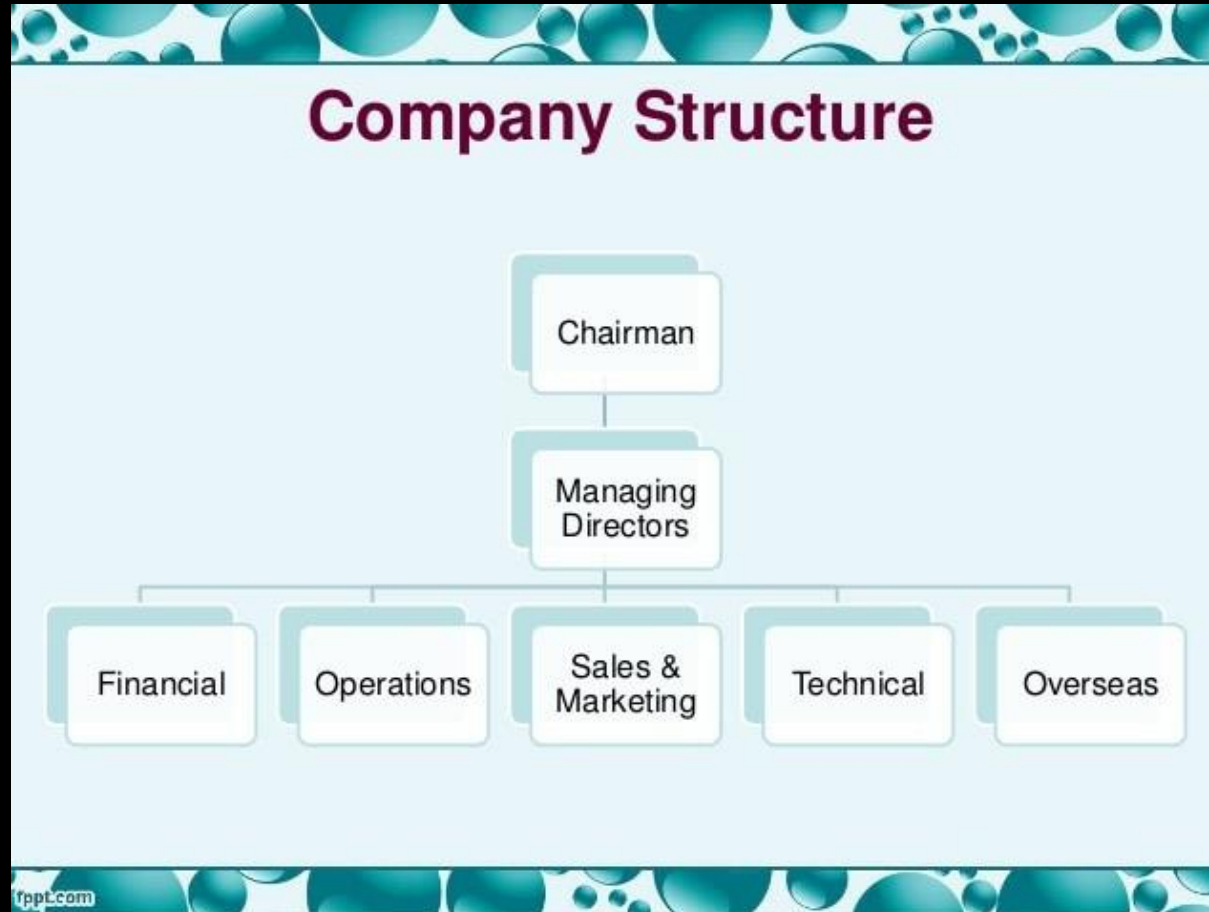
Operation Director

The Operations Director is responsible for all the revenue earning operations of the company

He is also responsible for ensuring that the utilization of revenue earning staff is kept at a satisfactory level(no lazy workers, no under utilization)

Resources are available to carry out the projects that the company wins

The personnel reports to him.

Operation Director

- Conflicts among different stakeholders:
    - Operational manager wants max staff utilization and revenue but individual career aspirations may be different. A specialist in COBOL may say he has no future and doesn't want to do this work anymore.
    - Operational manager wants a resource to work abroad ONSITE but he doesn't want due to personal factors and hence the conflict.
    - If OpManager forces employee for short term benefit , long term hurt could occur to company if such valuable employe leaves.
- Each company has expert groups e.g. experts in Java working in banking sector. When business is identified , a sale team is selected from them and this group or team is tasked to execute the job.
- Clash of structures can occur : Consider if the company has to bid for installing a communication system in a bank in Pakistan. Pakistani manager has local knowledge and is in good position to win it but needs assistance from specialists in banking expert group, communication expert group to make credible bid but he has to keep OpManager happy , Sales Marketing happy and so on.

Technical Director

The Technical Director is responsible for:

quality management;

research and development;

• marketing at a technical level (e.g. arranging for staff to give papers at conferences, meetings, technical trainings);

• Technical training (as opposed to training in, say, project management or presentational skills, which are the responsibility of the personnel function).

Technical Director

Ensure quality of product. Low quality product might cost less to make but long term consequence is customer bad experience. It damages reputation of company.

Research and development to ensure survival of company in the future. What sells today might not sell tomorrow. To create product of future, company must set aside funds to develop technology and train developers to prepare for it.

To sell custom software marketing presentations are often given to potential customers e.g. VC Islamia College were invited by Techlogix Corp to showcase their campus management system(to run admission,finance,registrar office)

Separation of Quality management from day to day operation is necessary for effective quality control.

Conflict

If personnel goes for training/R&D/ or marketing, its unavailable for productive work so Operational manager can be unhappy

Syniad's Organizational structure Type

Functional division of responsibility

Geographical element (represented by directors responsible for overseas operations)

Centralization vs Decentralization

In theory at least, staff have a sense of belonging to a group and regard their group manager as the manager who is permanently responsible for their career in the company.

In practice, because projects often require expertise from more than one group, staff often find themselves working on projects for groups other than the one to which they belong, and the sense of group identity is diluted

In a company of the size of Syniad, the distinction between centralization and decentralization has little meaning. Centralized policies and procedures are widely used but they have usually been developed within one part of the company and have been adopted by general consent.

Management of Staff

When the company was small, with less than about 50 staff, there were few problems. The directors knew all the staff personally and most had been recruited through personal contacts.
Staff were loyal to the company and this loyalty showed itself in a willingness to work unpaid overtime when necessary and to maintain high technical standards regardless of the extent of supervision

The company's ability to expand depends on its ability to recruit and retain staff; its reputation in the marketplace depends on the quality of its staff.

Directors put a lot of effort into keeping all employees informed about the company's activities and were able to take a sympathetic attitude to any personal problems that arose

Company was not able to organize much training itself, it encouraged and was willing to pay for staff to go on training courses provided by other organizations

Management of Staff

As company grew directors were not able to build up the same level of personal relationships with the new staff and loyalty to the company diminished

New Employees vs Old Employees ….OUTSIDER

Staff Appraisals: employees' achievements and contributions to the company were properly recorded;

 staff knew what was expected of them and what they needed to achieve in order to gain promotion;

 proper plans for training and career development were made and regularly reviewed;

 employees were aware of the company's opinion of their performance.

Employee's are appraised and salary reviewed after every 6 months. Managers does this by (code reviews, deadline commitment, punctuality etc)

Management of Staff

Despite the overall success of Syniad's staff management, there are still perceived to be a number of difficult problems to be overcome:

- how to provide continuity of management as staff move from project to project;
- how to exploit and foster group expertise (e.g. the collective expertise of the company's six database experts) in an environment in which the members of the group are usually working on different projects;
- how to maintain standards and company loyalty as the company continues to grow.

Management of Staff

The biggest difficulty, however, in developing and pursuing a consistent and satisfactory personnel policy, is the unstable nature of the business.
Syniad lurches from the position in which it is desperate to recruit staff to service the contracts which it has, to the position in which it is desperate to get business in order to keep its staff on revenue earning work.
In either of these situations it is difficult to ensure that staff work on projects which are appropriate to their skills, their desires and their planned career development.
This is ultimately a consequence of the company's under-capitalization.

Producing the Budget

Staff in the company are divided into two categories

Technical or revenue earning staff

Non-revenue earning staff

Both require different capital to work.

Producing the Budget

Staff in the company are broadly divided into technical or revenue earning staff and nonrevenue earning staff; the latter include management, secretarial, accounting and so on.

Budget is all about estimating : Costs of revenue of earning staff and revenue they are expected to earn. Overhead costs(including non-revenue staff) must then be contained within it.

For each employee a company must pay :

▶ Salary(ofcourse ☺)

▶ Health Insurance: A very important aspect. In western countries IT IS MANDATORY for companies to pay for health insurance. Government does not pay free medical like we have in LRH and KTH instead everyone is responsible to earn enough to support his insurance so if gets ill then he gets health support

▶ Other Perks

Producing the Budget

To make budget the following input is provided :

▶ Sales dept estimates of how much more business they could sell, and at what rates, if the staff to handle the business were available.

▶ Human Resource Department Estimates :

  ▶ company's ability to recruit new staff of a suitable calibre and to retain existing staff

  ▶ salary trends in the industry

▶ Operational Director view of staff utilization rates achievable.

▶ Expansion plans (open a office at new location)

Grade	Number	Annual cost	Days worked	Utilization (percent)	Daily cost	Charge rate	Total cost	Total revenue
1	20	18,500	195	87	94.87	195	370,000	760,500
2	25	23,000	205	92	112.20	220	575,000	1,127,500
3	42	27,000	206	92	131.07	255	1,134,000	2,206,260
4	41	30,500	204	91	149.51	305	1,250,500	2,551,020
5	27	36,600	198	88	184.85	370	988,200	1,978,020
6	20	39,800	185	83	215.14	440	796,000	1,628,000
7	15	44,000	160	71	275.00	560	660,000	1,344,000
Totals	190			88(avg)			5,773,700	11,595,300

Total Cost indicates salary expense while total revenue is total income they generate with their work. Notice usually an employee earns at least twice the amount of salary he takes. Which grade is most cost effective ?

Producing the Budget

	1999	2000
Rent and rates	700,000	720,000
Building maintenance	84,000	88,200
Heating and lighting etc.	40,000	42,000
Cleaning	20,000	21,000
Telephone and postage	85,000	108,039
Equipment depreciation	20,000	25,421
Equipment maintenance	12,000	15,253
Directors' salaries and expenses	480,000	504,000
Management salaries and expenses	945,000	1,201,145
Sales and marketing salaries and expenses	900,000	1,143,947
Secretarial	190,000	241,500
Library and information services	32,000	40,674
Training courses	180,000	228,789
Insurance	25,000	31,776
Legal expenses	20,000	25,421
Interest	400,000	600,000
Total	4,133,000	5,037,166

Monitoring Financial Performance

Monitoring Syniad's performance against the budget should, in principle, be straightforward. Each month, the income and expenditure under the various heads are compared and, if significant deviations are observed, corrective action is taken. In practice, this simple procedure presents many difficulties.

Cost and revenue

Project costing

Sales

Costs and Revenue

❑ A major problem is caused by random fluctuations, themselves the product of many individual factors, for example:

1. *Annual Budget n Staff hiring*

2. *Large projects cause deviation in Budget*

3. *Fixed Price Project Estimation*

Project Costing

Because of these difficulties in monitoring the overall performance of the company, Syniad also tries to monitor the financial performance of individual projects, through a project costing system.

The costs and revenue of each project are calculated each month and the cumulative gross margin (i.e. the difference between total costs and total revenue to date on the project) calculated as a percentage of the total revenue

Project managers complain that there is very little they can do about the costs.

Sales

Two reports are used for assessing and monitoring the sales position.

confirmed sales report

sales prospects report

Sales

The **confirmed sales report** shows, for each grade, the number of staff in that grade who are committed to contracts in each of the following twelve months and the total expected revenue from that grade in each month.

The **sales prospects report** shows, for each sales prospect, the potential value of the sale, its likelihood and the likely start date.

Long Term Planning

Strategic Planning for future

The ability to plan strategically and to achieve strategic objectives

Strategic planning in Syniad has two related aspects

   The first is to identify appropriate long-term goals

   To identify and formulate plans to overcome those problems which are inhibiting it from attaining these goals

Long Term Planning

Why not go with the current structure?

Expanding like that requires :

▶ Ability to recruit and retain suitable staff.

▶ Ability to raise funds to expand

▶ Ability to govern such a large entity.

Long Term Planning

▶ This strategy is successful as it retains the idea of single pool of technical staff available for any project, and thus it makes it easier to find appropriate staff.

▶ Four area of focus :

Expansion Plan	Company Image
Product Mix	Finance

▶ Also companies knows how to manage UK staff. Foreign staff management can be different as employment legislation varies.

▶ UK based costs less compared to other European countries.

▶ This model works if we new office is only in Holland where staff can speak and communicate in English(with UK office), but our company had to move to Germany or Italy this model would collapse as UK staff when working in Germany will have difficulty communicating. Hence they decided to hire local staff in Germany when establishing office there.

▶ For expansion should Syniad buy existing company in Germany or establish a new one ? Buying a company there is less risky but expensive and Syniad would need to raise lot of capital.

Long Term Planning

▶ There may be difficulties in integrating the company with Syniad; and there is a risk that the staff in the company will be unhappy about thee change of ownership and leave rapidly; thus destroying value of investment.

▶ Building from scratch requires less investment and there will be fewer problems of integration but the risks are high ; success depends crucially on being able to recruit the right person as local manager

▶ Syniad opts to pursue both avenues.

Long Term Planning

Company image

Product mix(fee based revenue vs package software)

Finance(under capitalization)

Conclusion

Syniad, despite its problems, is a successful and well-managed company. However, they need to go multi national

Do directors have the expertise to manage this transition or to run the resulting company?

However, it seems probable that Syniad has now reached a point where it can no longer thrive as a private company and its future must, inevitably, be very different from its past