Critical Success Factor
An Exploratory Study of the University College Library in Borås

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Abstract:

This paper examines the practice of Critical Success Factors approach and presents results of application of the Priority and Performance evaluation methodology within the University College Library in Borås. The objective was to report on actual application of this evaluation methodology in identification of critical success factors and the areas, which warrant particular attention. Furthermore, to focus on the interrelationship between priorities and performances of library’s services and functions. The descriptive and exploratory study used a qualitative case-study approach, employing an interview with an interview guide together with the collection of appropriate corporate documents as the main data collection technique, supplemented by questionnaires. Content analysis was used to analyse the data obtained from the interview and the documents for identifying the critical success factors while data for priority and performance analysis was derived from a survey of students and teachers belonging to various categories (six departments) of University College of Borås.

The Critical Success Factors that were identified in this study were grouped under a number of headings and a few major areas and these were refined into more detailed subject categories under which key functions and activities were identified too. The outcomes of priority and performance survey provided useful information about the library’s performances. The study revealed the applicability of the CSF and Priority and Performance.

Nyckelord: kritiska framgångsfaktorer, prioritet och utförande, utvärdering, CSF, Borås Högskolebibliotek
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1. Introduction

Effective information systems and quality of services is an ongoing concern for academic and research libraries. Nowadays the most important challenge facing the library manager is implementation of changes aiming at the improvement in library performance. The problem is associated with the difficulty of accomplishment of appropriate and reliable approaches, which can be used systematically. Besides, achievement of accurate results of measurement and evaluation is crucial, because improving performance requires information about how good performance is currently and at the same time getting feedback on the success of efforts to improve the library’s performance.

However, without doubt evaluation of academic libraries is useful and has more credibility if a good approach to measurement is applied, providing evidence of whether the system is improving over time or tends to respond less well to the information needs of users. Organisation theories suggest that organisations are dynamic and library and information systems need to be under continuous review to ensure that they remain in harmony with their environments. Thus, Evaluation plays a particularly important role in the evolution of library and information systems.

The literature of management of information systems (MIS) offers several approaches for assessing the value of information and measurement of library performances and many researchers have reviewed and discussed their usability. Performance measures, which are the usual evaluation method and are based on feedback from users, have become the dominating method among libraries and information managers. However, such measures and evaluations often do not address the concerns of all stakeholders, managers, libraries and information units, staff and users. According to Vickery and Vickery (1992, p.299) evaluation continues to be difficult and uncertain art. The tension between evaluation methods relying primarily on quantitative or qualitative techniques, the complexity of library and information systems and lack of absolute rules are the major factors. At the same time, the researcher has always to deal with the problem of being unable to control many variables, which are not relevant to the evaluation process. The hard lesson for the libraries is management and the most difficult problem for managers is to learn and to accept that the content of management is problem-solving.

My challenge is an attempt to cope with one of the most fundamental problems facing university libraries: measurement and evaluation, as an essential component of management within the libraries. I draw heavily on Brodbent & Lofgren (1990) application of Critical Success Factor and Priority and Performance approach, which appears to be an attempt to use principles to establish basis for studying library and information units effectiveness.

1.1 Statement of purpose

There is considerable interest in the role of libraries in universities and in their potential product (information) for enhancing university’s performance and furthering host organisational goals. As I have already mentioned, evaluation plays a particularly important role in the management of library and information systems. At the same time we must not forget that the most crucial component of all library and information services are their staff, and the degree of success with which they operate their system and the interrelationship
between those perceived priority which gives to the services and the current library’s performances.

The objectives of this paper are to report on the actual application of an evaluation approach and its result, which is based on the priority and performance evaluation method. Additionally, an attempt is made to explore those factors critical to the successful achievement of organisational goals within the library of University College of Borås. The primary purpose of the survey will be to generate some empirical evidence and indicators demonstrating those significance CSFs areas with a list of potential CSFs indicators ranked in a preliminary significant order. Furthermore, I will try through the priority and performance method to explore the interrelationship between priority and performance and to examine whether the competitive and comparative aspects of library services are within the scope of the parent organisation’s (University College of Borås) goals. Thus, my challenge is to examine the actual application of the methodology in identification of those critical success factors that are crucial for library’s success and to analyse the relationship between priority and performance of library services and functions.

### 1.2 Management of libraries

The university library is an organisation within an organisation. The primary purpose of a university library is to support the teaching and research carried out in the university. It can be described as the vital organ of a university because its nature and character cannot be considered in isolation from its institutional context. In other words separate from the mission and culture of the parent body. As Buckland (1988) argues, a library’s “mission statement” in general, is to meet the informational requirements of the total university community. On the other hand a library can be viewed as an open system, affected by contingencies placed upon it by its environment. This brings us to a very important point. The university library must be effective, and be able to prove that it is efficiently managed. But as Lynch (1985, p. 22) suggests, “the practical art of library organisation and management is far ahead of its corresponding theory”. Although management has not really penetrated libraries to any extent until the last two decades. According to Vickery, (1994, p.191):

> Fifty years ago few library staff at any level thought of themselves as “managers”; qualified staff saw themselves as professionals doing a professional job. Proven ability to manage did not rank high among the criteria employed by appointing bodies; in the academic environment this was true even for appointment to top positions”.

Line, (in Vickery, 1994) argues that since the early 1970s there has been a gradual but dramatic changes. Not only the literature of management has grown enormously but also applied scientific management, which demands strategic planning has become more and more common in both private and public sectors. The pressure to improve efficiency and to get the most out of resources forced most of organisations to pay more attention to managerial efforts. Libraries, whether they were in the public or private sector, have been forced to think about the way they were managed. The quality improvement and strategic planning became the two dominant management trends within libraries.

Library communities were influenced by MbO (management by objectives) and PPBS (Planning Programming Budgeting System) and later by Total Quality Management (TQM).
These managerial approaches demanded a precise statement of objectives and emphasised that performance measures should be carried out, since it is impossible to study the performance of anything if there are no objectives. The biggest changes occurred in special and academic libraries. TQM as applied to libraries has been discussed in the literature (e.g., Usherwood, 1992; Brockman, 1992; Mackey and Mackey, 1992; and Shaughnessy, 1993). Lancaster, (1993, p.305) argues that these discussions generally fail to offer concrete suggestions relating to the continuous monitoring of the quality of services provided by librarians. Lancaster states that quality management of this type seems much more concerned with internal efficiency than with user satisfaction. He argues that:

“For example, Dawson (1992) refers to the application of BS 5750 \(^1\) in terms of producing a detailed procedures manual and having the operations of the information service “audited” by an external “quality manager.” While this type of activity is undoubtedly valuable, it is difficult to see how a service organisation can commit itself to “quality” without collecting data reflecting the success or otherwise of its services.” (Lancaster, 1993, p.305)

It was generally assumed that everyone knew what libraries were and how they should be managed until pressures on resources, scientific management and rapid change of environment forced librarians to justify their activities; this means that they have to state their objectives clearly, and often determine priorities among them. It became clear that evaluation, as one of the most important techniques in applying good management and the most important aspect of adaptation must be the concern of libraries. As Lancaster argues:

“The fact is that evaluation is an essential element in the successful management of any enterprise. Ranganathan’s fifth law\(^2\) provides the major justification for evaluation activities. Healthy growth implies adaptation to changing conditions and adaptation implies evaluation to determine what changes need to be made and how they may best be accomplished”.

(Lancaster, 1993, p.15)

Although as the organisation changes in response to environmental stimuli, it appears that the evaluation, measurement and having criteria for judging its effectiveness and success is inevitable.

### 1.3 Evaluation an important activity

Evaluation is of central importance to good management and organisation of information systems. Broadbent and Lofgren (1990, p.1) suggest that: the success and even survival, of

\(^1\) BS 5750 and ISO 9000 were published quality standards for service benchmarks and guarantees.

\(^2\) Line (1979) has expressed the opinion that academic library (at least) do not observe Ranganathan’s Five Laws (1.books are for use2. every reader his book3.every book its reader4. Save the time of reader5. The library is a growing organism). According to Lancaster indeed, he maintains that they tend to observe their own set of five laws, more or less diametrically opposed to Ranganathan’s, namely: 1. Books are for collecting 2. Some readers their book 3. Some books their reader 4. Waste the time of the reader 5. The library is the growing mausoleum.
library and information units (LIUs) increasingly depend on the application of management principles and techniques, including regular and systematic evaluation. There exist a number of reasons why managers of a library should conduct an evaluation of the services they provide. A simple reason can be the establishment of a type of “benchmarking” to show at what level of performance the service is operating. At the same time, accomplishment of evaluation is only possible through accurate measurement.

According to the Oxford English Dictionary: the word “evaluation“ coming from the old French evaluer, was first noted in 1779 as meaning the action of evaluating, which the Oxford English Dictionary, in turn, defines as meaning “to reckon up, to ascertain the amount of, to express in terms of known”. While Webster’s has “estimation of worth“. MacGarry (1986) suggests that it is "the essence of professional judgement". Broadbent and Lofgren (1990) suggest that evaluation can be defined as "the act of placing a value on an object".

Assessment is an alternative term, which sometimes connotes less quantitative approach. Vickery and Vickery (1992, p. 262) suggest that: with respect to any activity, evaluation puts the question: how well has it been performed? How much benefit is derived from it? Such questions can only be answered by putting forward criteria against which the performance or value of the activity, service or system can be judged. Of course there may be more than one criterion that appears relevant to a particular activity.

A good evaluation requires an accurate and suitable measurement. Van House (1990, p. 3) suggests that: measurement is a tool in the evaluation process. Evaluation consists of comparing "what is" with "what ought to be". Ultimately, evaluation is an exercise of judgement. Thus, if evaluation is the exercise of judgement, then the result will differ, depending on whose judgement is exercised and which measurement approach is applied. The assessment of value therefore depends, in part, on from whose perspective the evaluation is made and which technique is applied.

Evaluation aimed at improvement in services, and changes to policies and resource allocation, is basic to good management within any organisation. Library managers, like other managers, should expect their units or activities to undergo formal and informal evaluations. The fact is that evaluation is an essential element in the successful management of any enterprise.

There are several attributes of evaluation, which are worth mentioning at this point. One particularly important aspect is whether evaluation should be quantitative or qualitative. According to Bawden, (1990) there are generally some quantitative components in any evaluation procedure, and until relatively recently, it was taken for granted that evaluation was virtually synonymous with quantification. In fact, the great majority of information systems evaluations conducted so far have been quantitative in nature. Bawden (1990) argues that this results from the fact that methodologies used in evaluations were taken from physical sciences and technologies, or from the type of social science research which involves extensive quantitative surveys.

Another distinction, which must be clearly made, is that an evaluation of information service may be subjective or objective. Objective evaluation approaches are independent of any individual’s assessment or perception and seek to discover how the service might be improved. On the contrary, subjective studies reflect people’s judgements and reflection. Subjective evaluations, according to Lancaster (1993) is not without value, because it is important to know about how people feel about a service
2. Previous research

It is reasonable to believe that interest in evaluation of information system and resources has been practised as long as there have been libraries and record keeping systems. According to Bawden, (1990) the earliest bibliography of this topic was published by Henderson in 1967. One early study, often taken as the first large-scale experimental evaluation, was the one that performed and carried out at the Cranfield Institute of Aeronautics, England. According to King, (1978) in this early period, evaluations were more concerned about the system design and various indexing schemes, and information storage and retrieval systems were more emphasised.

*Evaluation in this area was primarily concerned with comparison of indexing languages and effects of these languages on search performances.*

(King, 1987 p.1)

Cranfield I, which began in 1957, was essentially a laboratory style of evaluation, aimed at comparing four very different types of indexing languages: a hierarchical classification (the Universal Decimal Classification), an alphabetical subject catalogue, a faceted classification scheme and a co-ordinate indexing system. And even more elaborate study, named Cranfield II, was started in 1963 aimed at further investigating attributes of indexing languages and their effect on retrieval performance.

Most of the evaluation researches at that time were carried out in laboratory-like settings. Cleverdon (1963) and his colleagues engaged in a series of non-operational experiments, which led to the first measures of system performance such as recall and precision, which were based on the relevance of retrieved documents.

Such classic evaluation studies carried out by Cleverdon, at Cranfield Institute, England, are of particular importance, since they provided a general framework for the evaluation of both experimental and operational information systems. These tests generated extensive reports and other publications such as those summarised by Cleverdon (1967) and Swanson (1965) and later were set into the later developments by Sparck Jones (1981) and further commented by Lancaster (1989). On the other hand, it must be said that Cranfield studies’ influence on operational information systems has been much less than it was expected. Besides as Bawden (1990) argues the results of such studies were controversial, prototypical and showed a gap between research findings and practical adoption.

This period was followed by post-Cranfield studies and it became obvious that evaluation must be directed toward operational decisions, in other words, emphasising the cost, effectiveness and benefit tradeoffs of systems. King and Bryant (1971) carried out this evaluation approach, as King (1987, p. 2) suggests:

*Information scientists began to recognise that evaluation is not an end in itself but rather arises out of a need to set a value on a system.*

Systems like, RECON at NASA, MEDLARS at the National Library of Medicine, CIRC at the Defence Intelligent Agency and etc, were the results of tremendous efforts which were made in the improvement of automated information retrieval and storage during the early and
mid-1960s in the United States. One interesting example of the operational retrieval system is Lancaster (1969) MEDLARS evaluation.

Actually evaluation began to depart from the computer information storage and retrieval systems to concentrate on other operational information system environment. Cohersen & Wessel (1967) and Orr (1968) are researchers and good examples of these kinds of attempts.

According to King (1978) not only the nature of system evaluation but also methods of evaluation changed dramatically. Operations of library systems, networks of libraries, networks of information retrieval systems as well as various forms of publishing were emphasised. Orr (1973) presented a very general framework of evaluation in which criteria related to performance were called “quality” and those related to benefit were called “value”. Orr discussed how one could apply quantitative measures to evaluate library operations. The value of Orr’s model was that it presented the advantages and disadvantages of different quantitative methods of measurements.

Actually, the information system, with exception of Orr’s model, was still the object of evaluation. Later the concept of quality value, benefit, effectiveness and efficiency became the issue and various evaluation methods were discussed. Lancaster (1971) with an article bridges the early methods and those newer approaches, which were discussed later by Swanson (1975). Lancaster suggests that:

\[\text{Lancaster explains indexing and search systems in term of their cost and effectiveness of functions performed by the system. Swanson (1975) reviewed and examined the conceptual and methodological components of information science evaluation studies. Furthermore he discussed the process judgement in evaluation and the scientific nature of evaluation study in the context of purpose, criteria, selection of variable and data collection and analysis techniques.}\]

\[\text{Buckland (1973) provided an insight into library evaluation from the viewpoint of the theory of the firm. He tried to extend the analogy of the firm to libraries and to describe the lack of comparability for some objective function such profits, while according to Bikner (1971) evaluation and design of information systems cannot be performed without some unifying concept of economic costs.}\]

\[\text{The famous articles of Saracevic (1970, 1975) provided a review of the relevance issue and described several measures of system effectiveness derived from relevance. Saracevic defines relevance in its most general terms as a measure of the effectiveness of the contact between a source and a destination (recipient) in any communication process and thus only the ultimate recipient of an information message can make an unequivocal judgement. This period and}\]
even during the 80s, the information retrieval was no longer the only object of evaluation and
more attention was paid to the libraries and information units. New approaches to
organisational effectiveness such as those developed and tested by Cameron (1978) led to
empirical goal-based approaches such as those conducted by Davis (1984) and Morphy

Horton (1979) pointed out that evaluation has to be carried out in two different contexts: the
information resources and the information process as two sides of the same coin. According
to Horton these two kinds of evaluation, which is the state of the art of evaluating information
management should go along and hand in hand.

Griffiths (1982) carried out a study including organisation libraries in conjunction with a
study of value of information services, which was divided into two categories. The research
described the concept of value and approaches to measuring value, and the application of the
measures specifically to information products and services.

Van House (1987) argued the existence of a need for analytical tools with which academic
librarians could describe their activities quantitatively. She presented a set of practical output
measures for academic and research libraries. Van House’s evaluation approach focused on
output and performance of the academic library.

Burk and Horton (1988) presented a project for information audit and information mapping
which was very important in many aspects. This approach to information system evaluation
shares many attributes of methods mentioned above: cost benefit analysis, performance
evaluation, etc. The method emerged as a part of the general area of Information Resource
Management (IRM). According to Bawden (1990) information resource management (IRM)
holds something between cost-effectiveness/performance evaluation and user studies, and can
be identified as a response to financial pressures for justification and improved efficiency.
While Buckland (1988, p.232) described it as," including the planning, budgeting, organising,
directing, training, and control associated with an organisation’s information, and
encompassing both the information itself and related resources such as personal, equipment,
funds, and technology. He argues that it is the inclusion of a coherent framework both
internally and externally with emphasis on information as a resource, which must be
managed.

Griffiths and King (1993) presented a conceptual framework of evaluation, which included
two key dimensions: the object of evaluation and the evaluation perspective. They suggested
that the object of evaluation could be carried out on different levels that consist of the entire
library, function, service/products, the activities and the resources. They described five
approaches to measurement in the process of evaluation, which was referred to as generic
because, according to the researcher, they could be applied to any kind of library service and
to all object levels of evaluation. These five generic measurement approaches in evaluation
process were input, output, usage, outcome and domain.

User and performance studies have also a long history in information systems and services,
but they came particularly to the fore respectively during the late 1970s and 1980s, with the
increasing tendency to view information systems within province of social science and the
hostile financial climate. This led naturally to adoption of methods of social science research
like questionnaire, survey and observation as alternatives to the quantitative methods applied
in physical sciences and technologies. The financial aspect has always been a feature of
evaluation since early studies but has gained new perspective with the emergence of Information Resource Management (IRM).

As a result, managerial aspects of information systems received a good deal of theoretical attention. According to Rockart (1982, p.3): *as the information systems (IS) field has evolved over the past decade, the concerns of the IS executive have shifted from technical issues to broader management questions.* These trends which began in the 1960s, became more prominent in the subsequent decade. According to Daniel (1961, p.113): *the key to development of a dynamic and usable system of management information is to move beyond the limits of classical accounting reports and to conceive of information as it relates to two vital elements of the management process – planning and control.* Daniel (1961) suggested that in each company the origin of the problem lay in the gap between static information system and a changing organisation structure.

The Critical Success Factor concept, which was presented by Daniel (1961), was an interdisciplinary approach with a potential usefulness in the practice of evaluation within library and information units, has been discussed and applied by many researchers. The use of the CSF concept as an evaluation method of information systems was later introduced by Rockart (1979) and even later broadened by Bullen and Rockart (1981) as the management of information system (MIS) planning tool. The CSFs approach has been applied by many researchers among them Broadband and Lofgren (1991), Wilson and Huotari (1996), Pellow and Wilson (1993) and Loughridge (1997) And it has been argued to be an effective means in evaluating and defining the organisational information needs. The use of the CSFs approach in higher education has also been reported with satisfactory result (Wilson, Pellow, 1993).

In trying to summarise more than four decades of information system evaluation, assertion of three main trends is possible. The first trend was the evaluation that began from reliance on a single scientific laboratory style (quantitative), toward a more complex mix of quantitative and qualitative measurement based on social science methods. The second trend was the demand for finding new tools of evaluation to cope with the problems presented by technological advance. A third factor as I have already mentioned was the influence of managerial approaches in library and information units. At the same time a great deal of literature exists for performance indicators of libraries. Much of them sets a theoretical framework like King research (1993) or expounds ideal measures for all types of activities (Lancaster 1971, 1993). There has been less attention devoted in literature to practical measures that can be applied.

According to Line (1994) the methodology developed for the American Library Association by Van House (1990) was examined in order to determine if it could be used as a basis for the practical indicators, measurement, evaluation and study of the library performances. He argues that Swedish academic libraries were interested in this approach and that a Swedish version of the manual was being prepared too. However, the American methodology was found to be lacking elements, which were considered to be essential to the study. Thus, according to my assumption, it seems much better to approach the matter empirically by applying CSF, testing it in one library and then seeking the results. In this way a standard of measures may be established that can be applied throughout the country.
3. Method

Ahituv (1989) identified three generic approaches to evaluation in the field of management of information system and services: the normative approach, the realistic value approach and the perceived (subjective) value approach.

Ahituv suggests that the normative approach is purely analytical and is based on modelling and computation. The models are all based on assumptions of rational behaviour, which do not usually apply in real situations. He talks about the certain severe research and technical problems as:

First, it is hard to model a real life IS; it requires formulation of all the relationships among the system’s components, including human-machine interactions. Second, even if the mathematical relationships are well defined, it is very difficult to calibrate the model, that is, to introduce real figures into the theoretical model. (Ahituv, p. 319)

In the realistic value of information approach the basic premise is that the information affects performance and the value of information derives from differences in outcomes. Therefore, the study of a real-life case requires that the performance and organisational function would be measured prior to the introduction of a new information system and thereafter be compared with the performance after the system have been installed. According to Ahituv (1989) another major problem in the realistic value approach is the accuracy of measurement.

Ahituv (1989) argues that the perceived value of information approach is based on subjective evaluation performed by users of an IS. Among different methods by which the perceived value can be investigated I have chosen the perceived value approach using Likert scales. In this method, users are asked to mark their opinion of certain features and attributes of a system on Likert ranking scales. By analysing the ranking scale, one can obtain some knowledge about how users appreciate the system and its features.

As a matter of fact an information service unit can be evaluated from many different perspectives and dimensions: managers, users and the staff of information service units. By multi-dimension survey study the results will be more valid and different features and attributes of information units can be investigated. Thus in my study the perception of managers and information unit’s staff will be investigated drawn from Ahituv’s perceived value approach. As I have already mentioned the survey consists of two parts: a) Critical Success Factor approach and b) Priority and Performance method.

At the first stage (Figure 1) those critical success factors (F1, F2, F3…) are articulated by conducting interviews, questionnaires with the manager and staff of the organisation, together with the study of the written documents regarding these elements. Naturally, the managers of information systems and services have some perceptions about goals, objectives and activities that have to be carried out in order to be successful in accomplishment of their mission statements. Thus a number of factors which are vital for fulfilment of the organisation mission statement can be articulated. At the second stage the day-to day performance and priority of activities which are carried out will be examined to find out the correlation between these two variables, i.e. correspondence
between these two variables from the user’s points of view is which is crucial for the success of the organisation.

Disadvantage of this approach according to my interpretation that is based on a definition of effectiveness from the perspective of the organisation’s goal attainment (generated by Cameron 1978). According to this perspective, in such models, goal accomplishment and outputs are used as criteria for effectiveness (Price 1972, Hall 1998). In goal-based criteria, achievements of goals are the definition of effectiveness. According to McDonlad & Micikas (1994) goal-based effectiveness models are useful in circumstances where the organisation’s goals are clear, readily measured, limited in time, and for which consensus exists among the members of the organisation. Thus, measurements that are based on goal accomplishment as the criterion for the effectiveness are of limited value, because usually the organisation’s official goals are not always the same as its actual or real goals. Likewise, not all goals are of equal priority in practice.

Furthermore, the results of priority and performance is based on user’s perception of the value of services, thus it is not sure that the judgement of the users can be a criterion for the effectiveness of the library. In other word participant satisfaction and the ability of the library to address the needs and expectation of the users will be the basic element for the measurement. While the users’ judgement, who don’t know too much about what kind of services should be carried out and which quality the library functions and performances should have, can not be a criteria for the library effectiveness. This can only be appropriate when the parent organisation exert considerable power or influence upon the library and the library is obliged to respond to their demands and needs.

![Diagram](image-url)

**Figure 1.** Different stages of articulation of CSF and priority and performance
3.1 Critical Success Factor (CSF)

CSF was developed on the earlier work of Daniel (1961) by Rockart (1979) in an attempt to overcome shortcomings of approaches to management information system. According to Daniel, a company’s information system should be selective, focusing on success factors. Daniel (1961, p.111) suggested that in most industries, three to six factors determined success and that key jobs relating to these factors must be done very well for a company to be successful. Rockart suggested that a CSF analysis would be beneficial in identifying these factors. According to him, “...the limited number of areas in which results, if they are satisfactory, will ensure successful competitive performance for organisation” (Rockart, 1979, p.85). Thus, CSFs are those few things that must go well to ensure success for a manager or an organisation, and, therefore they represent areas that must be given special attention to bring about higher performance. He argues that:

The limited number of areas in which satisfactory results will ensure successful competitive performance for the individual, department, or organisation. CSFs are the few key areas where “things must go right“ for the business to flourish and for the managers goal to be attained.

(Bullen and Rockart, 1981, p.385)

The genesis of the conceptual framework presented by Rockart was later formulated in a book by Schräer (1990, p.17 in Broadbent & Lofgren 1991 p. 16) in terms of 80:20 rules. According to the rules only 20 percent of the total effort required to solve a problem fully is needed to achieve an 80 percent result. The CSF method seeks to identify those 20 percent factors.

The methodological approach chosen for a CSF analysis can be carried out by applying different empirical research techniques (questionnaires, structured interviews, group discussions or document analysis) depending on the objectives and specific context of what the researcher is concerned about. Broadbent and Lofgren (1991) suggest that no single technique for CSF analysis can be nominated and a variety of techniques are reported in the literature. A combination of different methods is likely to increase the reliability of results.

In this case I have chosen the most common way of defining organisational CSFs by means of conducting a qualitative interview with the UCB’s library director and staff, supplemented by questionnaires and document investigation. This will make it possible to draw inferences (to come to a certain conclusion) from the individual perspective of managers and the library staff and identifying these few key areas of activities which according to Greene, Loughridge and Wilson (1996) are usually three to six. Besides by conducting an interview with the library manager and looking at the documents which are related to goals and objectives of the library and by analysing the mission statement of the library I can get some understanding of the library’s organisational goals. At the same time I am going to concentrate on the factors that are vital and see if the library is to meet its objectives.

According to Wilson’s recommendation (2001) by using skilled interview it is possible, by concentrating on a core set of issues and refining them, to find out the overall goals of the library. The next step I will investigate and find the objectives and targets related to CSFs. Identification of CSFs, therefore, will provide a clear base for further investigation to examine
whether organisation’s focus and efforts meet these areas of activities or not. The method has additional advantages and it may increase the collective understanding of these CSFs by library staff.

In fact, the mission statement of any organisation provide an idea of the overall direction of the organisation, the way it is planning to develop and to be able to control matters. Buckland (1988) argues that, in order to articulate day-to-day work with the mission statement, it is convenient to spell out a list of sort of activities the library attempts to perform in the pursuit its mission i.e. objectives. Levels I and II (Figure 2) are related to the library as a whole and deal with general statements. While, the other two levels are related to functional areas. At these two levels the general critical success factors will be articulated with regard to a few limited activities which support the other levels.

Actually, in the lower levels remains the question of specific goals and targets for individual units within the library. As Buckland (1988) describes these targets are usually intended to serve as guidelines for day-to-day decisions concerning priorities for the use of time and other resources. According to Buckland (1988, p.149), “they can also be used as yardsticks with which to assess performance and results”. Thus, articulation of those problems, which arise concerning the mission, objectives, and goal of library services, and the identification of critical success factors and development of a framework for priority and performances will help the library to cope with the problems.

![Conceptual framework of library’s goals and activities](image)

**Figure 2.** An illustration of conceptual framework of library’s goals and activities
The problem may not necessarily be that the library director and librarian are unaware of organisational goals or unable to articulate them, but rather that, because library has a plurality of goals, the CSF method provides those few CSFs that are limited to scope but important in nature. As Boyton and Zmud suggest, “they viewed as being corporate wide in nature.” (1984, p. 23, in Greene, Loughridge and Wilson 1996)

Broadbent and Lofgren (1991) state that “questions guiding a critical success factor analysis in the library information unit’s LIU context might include the following: how should success and failure be defined? What are the characteristics of successful library and information units? In doing so a number of potential CSFs questions, as indicators will be used. (see Appendix 1). The list of these indicators and questionnaire had been compiled not only from reports and literature but also they were developed from the result of the first stage of research- the interview and the study of the organisation’s documents.

The questions are grouped into a number of categories, which cover all significant attributes of library. The primary purpose of the CSF survey is to generate some empirical evidence about those areas, which are perceived as critical success factor according to librarian and the library director’s perceptions. Assessment and illustration of the importance of these indicators will reveal the significance of factors relating to each area. Therefore, the quality of planning and management of library benefits from a focus on factors known to be of importance to the success of library in general.

3.2 Priority and Performance Evaluation (PAPE)

Priority and performance is a method aimed to identify areas that warrant particular attention. It is based on perceptions of priority and performance of libraries and information units on the basis of different categories of respondents, managers, users and staff and the interrelationship between these two factors (priority and performance). In the context of priority and performance evaluation, success is seen as related to the degree of correspondence between priority and performance from the point of view of library director, users and librarian. The output from the priority and performance approach facilitates the development of a series of activities for the library in achievement of its goals in relation to perceived priority and performance.

The priority and performance evaluation focuses on the interrelationship between the library, its organisation and its user perception. The priority and performance method has been applied on a large scale for the purpose of evaluating information units in many countries and by many researchers. The idea is very simple, the perception of users and managers of current performance in specific areas in the library is not always known to library managers, while the library’s success is directly dependent on the nature of these perceptions. In an ideal situation library managers and staff through systematic and direct contact with the parent organisation and accomplishing users survey are able to get some idea about their opinion, but not an extensive image of the nature of these perceptions. The user perceptions play an important role even for library’s adaptability and survival as Bucland describes:

*Although library staff may often be unaware of failures in the use library services, the user knows when the wanted document or the desired data*
have not been found. To the extent that service is perceived by the users as less than satisfactory, demand can be expected to be reduced. As demand diminishes, pressures on the library are eased. In other words, survival can be as much the result of feedback and adaptation on the part of the user as on the part of the librarian  (Buckland, 1988, p. 241)

The data for priority and performance analysis derives from a survey of individuals belonging to three categories including users, manager and staff within the library. A number of survey respondents are selected while standard requirements for reliable surveying are normally applied (representative sample). Survey respondents are asked to answer three questions in relation to each indicator, by circling a figure on a scale from 0 to 6 (see Appendix 2). These three general questions are formulated as following recommended by Broadbent (1996, in Auster and Choo, p.399):

1. In your opinion, what priority should the library give each of the following?
2. In your opinion how well does the library perform in each of the following areas?
3. How would you rate the overall success of the library?

In the context of priority and performance evaluation, success is seen as related to the degree of correspondence between assessment of priority and performance. Correspondence between indicators derived from the level of performance and priority as perceived by these three groups will contribute to the assessment of success. As a result, a high level of performance is not necessarily appropriate in those areas of activity which should not be given high priority in the opinion of respondent and vice versa. Therefore, success is achieved in areas where high performance figures match by high priority rating, in other words the relationship between priority and performance assessment from the comparative perspectives of various categories.

At the starting point for PAPE, a generic list of different targets derived from the CSF survey and result areas of the interview and study of documents will be developed. The potential indicators of these areas will be identified and ranked. For each group, the scores are then totalled. It is these potential indicators which are then compared. For analysis purpose each result area will be given an alphabetical letter or a number. The technique is suitable for presentation in the form of bar, column, scatter and other charts, which can allow for effective highlighting and dissemination of results.

At the first stage a comparison between different respondent i.e. users and the manager will provide evidence and enable us illustration of priority and performances from the point of view of different respondents. The differences between priority and performance levels in the first stage should alert the organisation to a need for improved performances in those particular areas with indicators of high priority and low performances. Not only differences between priority and performance are of interest but also ranking order by priority assessment provides the importance of each area.

A second display in another form illustrates priority assessment by library staff (y-axis) compare with assessments by users and library director (x-axis). The outcome will indicate whether there is a full agreement between library staff and the users and the library director
on what the priority of the library should be. Similar analyses can be carried out for comparison of perceptions of performances.

A success figure will also be available from the answers to question three, which provide a direct assessment by respondents. In addition the answer to question three can also serve to confirm the reasonableness of the success illustration of those first ones and vice versa. A large difference between these two success figures and indicator can point out to a problem in the organisation.

The survey data is entered on to Excel worksheets, which together with processing and analysis of data and generation of charts, requires a number of hours of labour. The visual presentation will reveal and make it possible to compare the differences in the perception of library performances among staff, users and manager. Furthermore, differences in perception of the service areas that the library should give high priority according to the perception of these groups of respondents can be illustrated.
4. **Evaluation of the Library at the University College of Borås; a Critical Success Factor Approach**

Conducting interviews, studies of documents, and providing questionnaires has been used for collecting the material for the evaluation. The people who participated in the study were director of the library who participated in an interview and one of the librarians. The library mission statements, goals, corporate objectives, strategic plans and reports were studied. The study of the documents was necessary because, a successful evaluation is related to whether the activity in question has distinct goal or not. It was also easier to discuss an activity if the goals were clear. Additionally a comparison between the goals and perspectives described by the director of the library, with those of written documents was possible. Furthermore, it was supposed to get some idea about the perception of the staff by means of questionnaires, which was not accomplished due to some problem.

4.1. **The First Questionnaires**

The primary purpose of the CSF survey was to generate some empirical evidence by means of conducting an interview and study the organisation’s document, and questionnaires which was sent to all (24) of library staff (see appendix 1). The questionnaire included 27 questions have been generated and compiled from the library’s director interview as well as the study of library’s goals document and recommendations of Broadbent and Lofgren (1991). The goal was to present a list of potential and primary indicators, ranked in order of significance. Survey respondents were asked to indicate, by circling a figure on a “Likert scale” from 0 to 6, the importance of each of those 27 potential CSFs indicators.

Likert named after the man who invested the method, refers to the way questions in a questionnaire are posed and the way questionnaire is constructed. It is a scale to indicate to measure variation in an attitude. In a Likert scale the respondent is asked to indicate degree of agreement with a series of short statement on a given range of responses. The intent of the questionnaire in this study was to measure the trait indicators of success factors as perceived by the defined set of statements. But this part of investigation was not accomplished due to some problems.

Very few case studies end up exactly as planned. Actually, during data collection, only more experienced investigator will be able to take advantage of unexpected opportunities rather than being trapped in them. On the other hand to change the direction of investigation is not an easy tactic. There is always the risk that the original research design will be inadequately revised.

Actually, the activity we call mind and thinking becomes most deliberate and conscious when an individual is faced with a problem situation, “conscientiousness” as Mead (1938) calls it. He argues that consciousness is the result of problem, a person’s self adjusting and trying to get out of difficulty or pain. The individual is aware of experience and trying to readjust the situation so that the conducted process can go ahead. An attempt to transform the disaster into opportunity.
Thus by analysis of the library’s director and the library’s document I had already collected those data which were necessary for identifying those general areas which are critical for the library to be a successful organisation i.e. Staff, Management, Service and Location. In addition, it was decided to use data gathered from an interview which was conducted 1999 with one librarian in writing my other papers. Fortunately those data and material were suitable and could to some extend inform and help the content of the evaluation within the organisation participating in my study.

Based on these critical areas which according to the result of the first stage of this case study are crucial for goal attainment of the library, another questionnaire was provided (Appendix 2) to investigate the priority and performance only from the users’ point of view. In the light of results of the first part of research the above four general categories were identified. Of course it was not possible to illustrate the assessment of indicators ranking the importance of these four broad categories due to the lack of library’s staff participation. On the other hand the study of the library documents and the interview which was conducted with the library director showed no evidence for differences of importance of these areas.

According to Yin (1989), data analysis consists of examining, categorising, tabulating, or otherwise recombining the evidence, to address the initial propositions of a study. He argues that, “analysing case study evidence is especially difficult because the strategies and techniques have not been well defined. Nevertheless, he argues that every investigation should start with a general analytic strategy—yielding priorities for what to analyse and why.” (Yin, 1989, p.105) The starting point for providing the second questionnaire was analysis of the library director’s interview, the librarian’s interview and the study of library documents which made it possible providing a list of indicators based on those four result areas. Especially the library documents made it possible that a generic list can be derived from “area of activity” which relates to and describes a feature of the library which was significant to the fulfilment of its role and objectives and the every-day activities of the library. According to Broadbent and Lofgren (1991, p.29):

“It is conceivable that a survey can be seen as meaningful even if statistical requirements for reliability cannot be met, but this needs to be explicitly recognized and taken into consideration when interpreting the results. “

However, the application of special type of pattern matching as an analytic strategy recommended by Yin (1989) was necessary. According to Yin the goal in this strategy is to analyse the case study data by building an “explanation” about the case and this procedure is mainly relevant to exploratory case studies. He argues that in most existing case studies, “explanation-building“ has occurred in narrative form. At the same time, because such narratives cannot be precise, the better case studies are the one which the explanations reflect some theoretically significant propositions. Thus, the survey respondents were asked to answer three questions relating to activities aimed at the goal fulfilment of the library and those aspects, which featured the library and its activities. These question which were formulated and recommended by Broadbent and Lofgren (1991, p.29) are:

1. In your opinion, what priority should Library Services give each of the following?

2. In your opinion, how well does Library perform in each of the following areas?

3. How would you rate the overall success of the Library Services?
The first and second question follows a number of statements derived from the library activities according to the documents and the area significance to the library generated by analysis of the interviews. I order to follow recommendation of Broadbent and Lofgren, to make it somewhat less likely that respondents make their answers to the second question directly contingent on their answers to question one the statements were listed in different order in relation to the questions. Thus these questions allowed different user’s perspective in regard to perception of the priority/performance, as well as the third question in regard to overall library success. The respondents are asked to answer the above three questions, in relation to each statement, by circling a figure on a scale from 1 to 6 on a Likert scale.

As Yin (1989) argues the design of a case study can be altered and revised after the initial stages of a study, but only under stringent circumstances. In other words, after some early data collection and analysis, an investigator has every right to conclude that the initial design was faulty and to modify the design. This is an appropriate and desirable flexible use of pilot studies. In this case due to circumstances the investigation of staff’s perception by delivering questionnaires was not possible, thus it was replaced by some part of conducted interview with a librarian in 1999. At the same time I was careful not to shift the theoretical concerns and objectives of the study, because as Yin (1989) argues if these are changed, the investigator can be correctly be accused of exercising a bias in conducting the research and interpreting the finding. For this reason, multi-dimensional illustration of users, staff and the library director was not possible either.

The user questionnaires have been carefully designed to ask questions clearly and unambiguously. According to Van House et al (1990) designing comprehensive, clear questionnaires is difficult. Thus the questionnaires were tested, revised, retested and re-revised with a variety of users. On the other hand users are very resistant to lengthy questionnaires therefore it was attempted to make it as concise and comprehensive as possible and easy to answer and not to be too long.

4.1.2 The Interviews

The Library director and a librarian were interviewed, by using a semi-structured interview schedule (see Appendix 3). The primary aim was to examine the potential role of the university library in supplying information to university as a whole. According to Carlson and McNurlin (1989, p. 34) the best approach to uncover the sources of CSFs is to work from the top down in the organisation. Thus, the interviews also sought to explore a short history of the library, the structure of university library, the nature of collection, staff profiles, management styles, users’ needs, the number of sites and institutional policies and attitudes. Naturally identifying the library’s goals, objectives and targets and the nature and style of services provided by library was one of the most important aims.

4.1.3. The Library Director’s perspective

The Library at the University College of Borås was established in 1972, when, The Swedish School of Library and Information Studies (SSLIS) was founded in Borås by an act of Parliament and through decisions made by the Government. The School was given the
responsibility to educate librarians of all kinds for the country. Its status as a fully independent School lasted until 1977 when the Higher Education Reforms amalgamated independent educational programmes into a framework of regional universities. Thus, from the Pre-school Teachers’ Seminary and the Swedish School of Library and Information Science emerged Högskolan i Borås (UCB). Then the library became the library of the University College of Borås (UCB).

In the beginning, the library was located in three places. In 1988 the library moved into the same building as it is located today and has served as UCB’s library together with a branch in The School of Textiles. Over the time UCB has grown, and, today it consists of six departments, or schools as they are referred to officially, and has about 8500 students.

From the very beginning of the establishment of the library, the Swedish School of Library and Information Sciences (SSLIS) had a dominating role upon library’s function and performance. As a matter of fact during the 70’s and 80’s, the library had a laboratory function for those students who studied at SSLIS. Until 1993, when Parliament voted to change the system of higher education, generally, this meant that all higher (tertiary) education was to be "academised", that is vocational diploma programmes – like the programme in Librarianship – were to be transformed into Bachelor’s and Master’s programmes.

The library director considers the development and implementation of PC and databases in library in the early nineties, as the most important change in the library, and suggests that the campus usage of the library has changed dramatically. Today, the UCB’s Library position and status is as one of the central information unit of UCB, a service institution with a huge collection co-operating with those six departments.

The present director of the library who was appointed in 1992 states that, as a consequence of those radical changes in library domain, in the early nineties, the nature of UCB’s library services has changed. The library as the component of the UCB’s information resource and system had to adopt its own organisational goals and objectives, besides, by environmental scanning, director and staff ambitiously followed changes which took place in the world around. Of course the goals and objectives are in line with those of the parent organisation. A new organisational structure was implemented 4 years ago and the structure has become to a great extent platter. The director argues that an entire flat organisation is too difficult to work, because, in such structure all members of the organisation have to feel having the same responsibility and to achieve such a goal is difficult.

The library director is, and has always been the member of UCB’s leadership group. Thus the library director has a direct link with the central administration of UCB. The library is a central information unit of UCB and is responsible and concerned about information supply, user service and long range media acquisition by department and subject domain. The library serves four distinct user groups: the university employees, the teachers, students and researchers.

The library director emphasised that apart from the primary role of the library, which is supplying information and serving these groups, the library is also a pedagogic resource in the university too. User training and user education, extensive and regular information-seeking courses for students is carried out by the library, besides the library is the study and reading
room and workplace for the students of campus. Therefore the library has a well-defined primary user groups in campus.

According to the library director, the utilisation of the library’s potential information services and enormous information collection, requires an internal marketing and they have not been used efficiently. Of course the library director’s definition of satisfaction is a question of to be completely satisfied. This year marketing of the information resources is one of the library’s objectives. Library’s leadership desire and are determined to initiate changes and are anxious to develop services and make it easier for the users to use resources more efficiently. The architecture of the campus library should be in harmony with those images of the library that originate from the idea of the library as a central “information and service supply” with high standards, and of course, there are goals and objectives behind such desires.

The library director maintains that an extensive effort has been put into the development and improvement of the library’s web-site. Since last year library has employed a webmaster who has worked a great deal with the web-site, in order to, not only improve co-ordination of the university information resources, but also to facilitate the users technical access to the library system. Besides, policy and goal aimed to provide education and training for all of the students has been developed. This program already started for those students who begin the first semester and continued through all levels of studies. Recently the library has started with such educational programs for Ph.D. students too. The library director is not satisfied with the supply and delivery of services to the teachers and states that as a matter of fact the library has not succeeded to serve the teachers appropriately, but it is one of the library’s issue during 2001-2002

The UCB’s vice-chancellor’s ambition and vision, which can be described as an international perspective in both educational programmes and in research areas of UCB, has not been the concern of library yet. Of course the library meets the needs of all foreign students. The library director argues that to communicate with foreign students and to meet their information needs has never been a problem and the library usually makes a presentation of resources for all of them. From the collection point of view, which is usually in English, the library can compete on an international level with other libraries.

The library director stated that, all of the library’s goals and objectives are equally important. On other hand, the physical architecture and the image of a library as an information centre was emphasised. She argues that as a consequence of increased numbers of student, and changing nature of the student population and a wider variety of information resources, location has been an important concern of the library during the last few years. As a matter of fact electronic delivery of materials has opened up new opportunities to meet the students needs. The students are beginning to use a wider variety of information sources than the print base material. Today all of the departments have access to subject related databases. The library has also received a number of databases and journals, through a national act, from BIBSAM (The Swedish Royal Library's Department for National Co-ordination and Development).

The library’s goals and objectives generally are related to those traditional routine activities and functions of a library. These activities such as acquisition, collection, interlibrary loan, cataloguing etc require a number of activities, which must be accomplished through a year. The library director states that they have already begun to analyse and evaluate the last years
activities, aiming to see if they have achieved the last year’s goals and objectives. She argues that, unfortunately a written vision and mission statement for the library has not been provided, but the library has overall goals and objectives, which originate from three library’s basic tasks. The overall library’s goals can be described as an information and knowledge resource for UCB and the region, and an active pedagogic resource and a central place for social meetings and research studies.

Tasks and activities in library can be described to be a mixture of the traditional routines. The library director argues that this is a question of personal attitudes and co-operation between staff, and it is her responsibility to investigate, co-ordinate and organise the personal. Library as an organisation is a very complicated system with combination of a great deal of traditional routines together with ambitions to carry out new ideas and images. There are librarians who believe retaining the old traditional way and those who ask if they have to do the job in the same old traditional way. There is of course a general agreement for a need for change and development. The most important factor is to provide a possibility for co-ordination and co-operation.

Goals and objectives are the concern of library’s leadership group and the library director initiated the core idea of having well defined and clear goals. The library works on formulating goals and objectives, with the library director as the responsible person. The library director states that it is a sluggish process, because it has been difficult to explain and make it clear for the staff about the importance of having goals and objectives.

A written goal document should work as a map for accomplishment of overall activities in the library and, not just as a document to be maintained in the archive. The library organisation is very concerned about the fulfilment of its goals and objectives and to keep the personal up-to-date. Co-ordination and harmony as one of the most decisive principles of success of organisation has been the real concern of the library. Recently the library director has appointed new responsible staff manager to whom she trusts completely for carrying out this duty.

The numbers of library staff are 14 librarians and 7 assistants and together with other staff the organisation constitutes of 24 persons. The library director has to play the role of supporter of the library organisation. According to the library director everyone in the organisation has to keep himself/herself up-to-date and to be able to pay attention to one of the most important factors of development and improvement i.e. environmental scanning. We have to be aware of what is happening in the world around us and this can not be only the director’s responsibility, but all of the organisation members.

4.1.4. The Interview with the librarian

An interview was conducted with one of the librarian and according to her the structure of library organisation has been changed a few years ago. The purpose of change was to move the library organisation from the present structure of that time to a different one, which was more desirable in meeting its objectives. In managing the process of change a consultant was employed and engaged, thus, the present structure of organisation was presented and the organisation was reorganised. In getting some insight and idea about the present structure of the organisation and to be able to understand the librarian’s description of the function and
relation of different units within the organisation a conceptual framework of the library structure, taken from the library’s document, is presented in Figure 3.

Fundamentally the organisation is divided into four main levels, i.e. strategic, responsible, functional and support levels. The leadership group at the strategic level includes the representatives from different divisions and the library director. The second level group, which is called the responsible level, is in fact the representative from the functional level groups. Formerly, the organisation had a hierarchic model but the new structure has made it possible to have more responsibility and to be able to influence and share the process of decision making. Of course this possibility of participation in decision making process is very limited to the operational level and only through the regular meetings which take place at the responsible level.

She argues that development originates from teamwork, and harmony and interaction between different units and is an essential factor in goal attainment. In order to serve the customers appropriately the library has to be customer-centred and according to her interpretation the staff has to be autonomous. According to her to have the social competence and to be flexible is the secret of success within an organisation.
Various ways of classifying CSFs have been proposed and the sources or areas from which an organisation’s CSFs can be derived have been examined. Pellow and Wilson (1993) in their pilot project were able to identify the organisational CSFs by conducting interviews, while Brodbent and Lofgren (1991) not only conducted interviews, but also sent questionnaires to managers, users and LIU’s staff. To be able to construct the questionnaire, the primary analysis of the interview and library’s documents was necessary. Generally this approach allowed me to identify the organisational goals and by ranking them, determine the factors that were critical to the achievement of those goals derived from different categories’ critical. First an analysis of the interview with the library’s director will be presented.

The expansion of higher education in the 1970s in Sweden has been the underlying assumption for the development of UCB’s library with a comprehensive acquisition and collection building. The library’s mission statement reflects Buckland’s argument (1983, p.148) about the broad definition of what business the academic library is in, what is its general task: “to meet the informational requirements of the total university community“. This is the very obvious goal of the UCB’s library at the top level. Even statement at this level follows with two other statements i.e. emphasising on the library’s educational role, and seeking to attract users by providing refreshment facilities, better opening hours and more available rooms, is an attempt to make library as a work and meeting place.

The library’s mission statement follows with a comprehensive list of objectives representing the activities that the library tries to carry out in pursuing its mission statement. Furthermore there are annual targets which originate from those traditional and everyday activities of the library performances (performance goals).

In order to implement annual objectives, the library director and leadership group of the library has developed a process, which may be interpreted as to be in line with management by objectives (MbO). Management by objectives which was first proposed by Peter Drucker
in 1955, was very popular as a method of implementing strategic objectives in 1960s and 1970, has fallen out of fashion as a method.

MbO describes a set of procedures that begins with objective setting and continues through performance review. Each persons major area of responsibility in the organisation are clearly defined in terms of measurable results, so that they can be used by employee in planing their work and by both employees and managers in monitoring progress. The essential elements of MbO can be described as schemes of appraisal and performance, review and evaluation. The advantages are seen in terms of improvements on past performance, while it may be difficult to provide the autonomy for everybody in an organisation, which is necessary to carry out actions to achieve the objectives. Thus managers, supervisor and team leaders usually decide on the action, which requires in order to achieving the objectives.

As a matter of fact, it can be stated that the library organisation of UCB is dominated with management by objectives, with an annual internal performance measurement, which indeed are the usual managerial tools of the UCB’s library. The main reason of introduction of performance measurement in this library is to make the system work better and to be able to achieve the goals. The managerial aspect of the library will be discussed more in the section of analysis of results and discussion.

The new organisational structure, which was implemented about four years ago, was an attempt to facilitate the organisational integration. This made it possible to make decisions in different sections that are consistent and coherent in relation to each other and toward the goals sought. Staffing and skills audit, in order to identify what skills and resources are be required in changing environment and procedures for ensuring that they become available, is the concern of the library director. Staff and managerial procedures within the library are vital and coupling of various parts of organisation which peruse a multiplicity goals is crucial.

Information Technology (IT) have had a big effect on library, although record system has made it possible that resources can be accessed by terminal wherever located. Marketing and development of library’s web-site is an attempt to make it possible that the huge collection and information resources can be used more efficiently. Interest in library’s user education is the concern of the library and library has been keen to develop information-seeking skills and to train students to use a wide range of collections.

Because the present building, housing UCB’s library, is not on the scale suitable for parent organisation (UCB) specially in the future, the library director pointed that they look forward to the modern concept of open access collection in a larger building, with provisions for different kind of services. Restructuring of the library building has been a consequence of increased students’ number, changing the nature of student population and the variety of needs together with the present limited space for reading rooms. Thus the library building can be described as being critical in fulfilment of those two other goals i.e. provisions for satisfactory reading rooms and educational workstations. This will facilitate access to overall services produced by the library. According to Carlson and McNurlin (1989, p. 33):

“The first step in creating a measurement program is identifying the objectives of the ‘corporation.’ We use the term ‘corporation’ in a generic sense- to mean any form of organisation: a business firm, an academic institution, a research centre, a government agency, or an association.”
Thus, the primary purpose of this interview was to uncover the critical success factors that library director considered as initial requirements for corporate success. Critical success factors fell into four general categories, management, staff, service, building (location), and they were developed from the basic objectives of the parent organisation. Thus, four aspects of the multifaceted character of organisational effectiveness and success in general, were derived from the interpretation of the interviews.

4.1.6. The Library Documents

The library’s web-site was visited and those two documents, which according to the library director were, “written goals of the organisation” were studied. One of the documents is 8 pages and is titled as “library’s goal and activities for 2000” and the other one is named “library’s quality program”. In the first document goals are related to those traditional and routine activities of the library, electronic information supply and management of library. In this document the strategic plan of the library regarding goal achievement is presented, which helped me partly to establish the questionnaire which was used in this case study. A rough outline of this document is the following:

- Collection: The library’s total collection, books, journals, and borrowed material in electronic and printed format and net-based information resources have to be accessible. The goals are that the library’s collections satisfy and originate from education and researches carried out in UCB. Besides the library should have the leading role in the national library and information field.
- Interlibrary loan: the library’s collection should be a complemented through interlibrary loan. The goals are that the interlibrary loan has to be an alternative for those materials, which are not accessible and are not the issue of the library’s purchase. Interlibrary procedures have to be carried out as fast as possible.
- Acquisition: the purchase of library’s material has to be charted and accomplished as fast as possible.
- Catalogue: promote of existing collection has to be visible and searchable as well as user-oriented (users awareness of services).
- Loan (patron): supply of library’s media to be borrowed and provisions for interlibrary loan and photocopy possibilities. Procedures and routines to design regulation, that allow the maximal usage of library’s collection by paying attention to users needs.
- Contact and communications activities: to create of a link between the library and institutions (departments). Through active co-operation with departments to build up the library’s collection and services in such a way that the services and collections could be improved and developed in harmony with educational and research activities.
- Teaching and training: to teach students, teachers and researchers to seek literature and information. The goal is that everybody in these categories should acquire the necessary knowledge and competence to be able to seek the information, which they need.
- Information service and supervision: the staff should have professional competence and qualification to guide the customers.
- The Computer support: technical support of activities and improvement of available electronic services. The electronic instrument and infrastructure should have the supportive function of different services.
• Leadership and management: provisions allowing the library to achieve knowledge and information resource of the CUB’s students, teachers, researcher and other staff. The library should be an active pedagogic source.

In this document the services and the quality of services are most emphasised. In the first section of quality program, which is written and originated from the latest self-evaluation of the organisation in 1999, the library building as a critical factor for higher quality of services is discussed. There are also overall vision, mission statement and goals of the organisation, that is inline with the parent organisation’s goals and objective. According to the parent organisation’s vision in 2004, expected quality of the UCB will be corresponding a university (Sjuhärads University) and thus the library’s goals and objectives can not be separate from its parent organisation. This document is actually a framework for the library service and ambitions in planning and concentrating on those three basic elements of its overall goals i.e. information and knowledge resource, active pedagogic resource, and meeting-working place.

4.1.7. Primary Analysis of Library Documents

The study of library’s document did not show any pronounced distinction with those goals and objectives, which according to the library director were vital for library. In the documents not only mission statement is presented but also an articulation of day-to-day work was spelled out through a list of different sorts of activities that the library attempts to perform in the pursuit of its mission. A more detailed, comprehensive list of objectives representing the general activities that the library tries to carry out in pursuit of its mission statement, like those which Buckland (1998) includes, were presented:

1. To assess the informational requirements of the university community on a continuing basis by formal and informal interaction with all other elements of the university community.
2. To select from available information that portion most applicable to the requirement of the university community.
3. To acquire, organise, and arrange these informational resources in a manner and in a physical setting most conducive to their use.
4. To interpret and publicise an additional range of informational and educative services in order to increase the benefits of the library to all members of the university community.
5. To make available, interpret, and publicise an additional range of informational resources and services by active collaboration with other institutions through interlibrary loan, information networks, and co-operative arrangements.
6. To study the operations and services provided by the library to assure the effective use of available resources.
7. To present and interpret to the founders the fiscal and other needs of the library.
8. To provide an environment in which to develop and maintain a capable staff.
9. To anticipate and plan for future developments in the informational needs and services which are likely to affect the university community.

Even guidelines for specific goals for different units and performances within the library and a clear representation of goals, and approaches by asking “what” and “how” these goals should be accomplished, regarding priorities for the use of time and resources, were outlined.
In another document, which is called the library’s quality programme, the new building of the library which estimates to be ready for utilisation in April 2002, is regarded as to be crucial to the future development of the library and concentration on quality of the library services. In this document it is emphasised that the quality will be the concern of organisation as a whole and some kind of measurement will be applied aiming at checking the improvement and quality of the services. Here again those three overall goals of the library with some concrete examples of different approaches of goal attainment were discussed. In Figure (4) I have tried to illustrate and outline library mission statement and those major phases of activities regarding the fulfilment of the library’s mission statement according to the library document and the library quality programme.

According to the documents some objectives are established for individuals, groups, teams and units within the library and then by setting these annual objectives it is explained what must be accomplished in order to achieve the library’s strategic plan. Here again the extension of Management by Objectives (MbO) in form of performance management and the establishment of individual objectives, which assist the achievement of corporate objectives, were emphasised. There was also a strong emphasis on objective setting and formal appraisal of these objectives. At the end of one of the documents it was written that the library director and two other staffs produce the documents and it is not clear if these individuals established these objectives for their subordinates without any agreement of others! The process that is usual in MbO and the manager usually defines the goals, which must be carried out by their subordinates, and this process was a clear character of the library according to both documents and the interviews.
**Level one:** linking library mission statement and objectives to those of UCB’s

<table>
<thead>
<tr>
<th>Mission or strategy is discussed, which results in primary objectives. These Objectives are decomposed into</th>
</tr>
</thead>
</table>

1. Library as information and knowledge centre of UCB.
2. Library as pedagogic and training centre of UCB.
3. Development of the library as the central social and meeting place of UCB.

**Level two:** developing priorities and gaining confidence by concrete procedure

- Creating organisational goals and user-oriented culture
- Active Environmental Scanning
- Customers-centred organisation
- Staff qualification

**Level three:** key techniques, implementation, activities and refinement

- Service: user related function
- Staff: operational function
- Management and administration

**Figure 4.** An illustration of library’s objectives, goals, targets and activities according to library documents.

At the lowest level three basic functions, which are performed by library, are outlined. Here a few example of procedures, which according to the documents were based on self judgement and evaluation of the performance of the year before, were presented in the documents. It is obvious that this kind of performance evaluation implies how well the system or service is working, with respect to some prior measures. This kind of performance evaluation dominating in library is exactly in line with those purposes of evaluation that
Bowden (1990) describes. He argues that performance evaluation may be carried out for many reasons, there may be an action research commitment to improve services for users or could be designed for justification of continuance expansion of service, or for better management within the service.

A list of library functions and activities can be divided to three main categories: user related functions, operational functions and managerial or support function. An outline of these function

**User-related Functions**

- Access to library collections
- Access to external collections
- Photocopy services
- User training
- Research services
- Database services
- Current awareness of services
- Interlibrary borrowing and lending

**Operational Functions**

- Collection development and management
- Acquisition
- Cataloguing
- Material receiving and processing
- Catalogue maintenance
- Physical processing

**Management and Support Function**

- General administration
- Marketing
- Policies and procedures
- Financial management
- Staff related activities

These three categories of functions are subdivided by me into specific activities in providing any of the above services and functions. The initial analysis that revealed a few major themes in different categories of functions were gradually refined into more activity subject areas, under which a number of statements for providing the questionnaires were possible. In providing these statements all four categories of CSF were regarded important, but more attention was paid to service areas, which were emphasised and regarded as targets according to the library documents and the interviews. For example in the library document (quality programme) you can read about priority of the procedures to adapt loan’s period in order to meet the users’ need in the best satisfactory way. One of the statements in the questionnaires originates from this part of the documents. The others were provided from interviews etc.

Of course it was possible to choose or to add more service areas but with regard to the problem with long and boring questionnaires it was decided to choose more general statements which cover those four areas. On the other hand if service areas were the cores of the statements and gets positive response from the respondents it can be interpreted as appreciation of the organisation’s managerial aspects, staff competence and other aspects too.
5. Priority and Performance

This evaluation method developed from the critical success factor approach was described and developed by Broadbent and Lofgren (1991) can be applied to identify areas of strength and shortcomings and to define and to measure the organisational success. According to Broadbent and Lofgren (1991) the involvement of the library manager and staff is essential to the application and usefulness of the method, but as I mentioned above I was not able to get this data from the library. Thus my interest here, however, was the identification of library performance, in the definition and measurement of success, focusing on the interrelationship between library’s performances and priorities.

Broadbent and Lofgren argue that the outcomes of this evaluation method can provide evidence, which confirms or disproves the library’s initial understanding of applicable critical success factor. The process and application of CSFs recognises CSF areas, precedes the priority and performance evaluation, and investigates the objectives of the evaluation which goes beyond those of CSF analysis underlying aspects of library organisation and service.

The data for priority and performance analysis was derived from a survey of users belonging to various categories i.e. 15 users (students) and two teachers from every department (Academic Schools as they are called) and by answering to the questionnaires delivered to them personally. According to Broadbent and Lofgren (1991) the number of survey respondents, and procedures for their selection, are dependent on resources available and the requirements of the evaluator. Standard requirements for reliable surveying was applied, the sample was representative for drawing conclusion about success in servicing the parent organisation as a whole. The respondent categories were:

1. Swedish School of Library and Information Science (SSLIS)
2. School of Education and Behavioural Sciences (SEBS)
3. School of Business and Informatics (SBI)
4. School of Textile (ST)
5. School of Engineering (SE)
6. School of Health Sciences (SHS)
7. Teachers (T)

5.1. The Second Questionnaires

A list of meaningful statements concerning activities and services to those certain CSFs areas was provided. For reliability of results, it was considered important that, the survey covered a significant number of respondents. Thus, as I mentioned above questionnaires were distributed and delivered to 102 individuals belonging to the 7 categories of respondents of UCB. The sample was random and representative included almost all the users of the library. The response rate were high, over 95 percent. This was achieved through personal delivery of questionnaires. Another factor explaining the high response rate was the co-operation of both the teachers and the students. Statements used in questionnaires are:

Q1. Access to databases (online and CD-ROM)
Q2. Competence and qualification of staff
Q3. Interlibrary loan  
Q4. Physical atmosphere of library (equipment, lighting, noise, reading facilities, photocopy)  
Q5. Procedures for user feedback to library service  
Q6. Provisions of up-to-date books, journals, and other information sources  
Q7. Understanding of users’ information needs  
Q8. Range of material in collection (subject areas coverage)  
Q9. Current awareness services  
Q10. Timely delivery of products and services  
Q11. In-house training and education of users  
Q12. Easy to use the library’s web-site  
Q13. Loans period of current course literature  
Q14. Provisions of more copies of current course literature  
Q15. Provision to facilitate to do research

5.2. Analysis of the Questionnaires

The final stage for PAPE was how to analyse, interpret and present the materials collected. Some consideration was given to the ultimate aims and objectives in relation to the final research report. Thus analysis that is presented would be both descriptive and analytic, depending upon the theoretical perspective that was used regarding the best way to provide illustration of the data available. However for analysis and illustration purposes after reviewing a number of statistical methods, it was decided to analyse the results of the survey by using Excel worksheets. For analysis purpose, each statement of the questionnaires was given the alphabetic letter Q in the same order that the statements were presented.

The survey data was entered onto Excel worksheets. The processing and analysis of data and the generation of charts was very time consuming. Over the following pages charts and graphs based on results are presented. It is important to note that presenting results and illustration of them by graphs provided insights into particular characteristic of each result area, and made it possible to drive a comparative perspective. At the first stage identification of result areas which require special attention, i.e. where the priority is high but the performance is low and vice versa. At the second stage priority and performance assessments would be compared according to results belonging to every group of respondents’ perception by using a matrix and calculation to show the library performance in comparison with priority.

Figure 5, illustrates priority assessments compared with performance assessments as seen by respondents of School of Business and Informatics (SBI). Some obvious differences are readily apparent. Noteworthy differences between priority and performance assessments in relation to certain statements are Q14- Provisions of more copies of course literature and Q 6- Provisions of up-to-date books. Journals, and other information resources. This indicates to a likely need for improved service in these particular areas. The assessment of other aspects of library provisions such as Q1 and Q2 and Q15 are within the library’s scope. The appraisal of library performance in the in these area can be interpreted in the definition and measurement of library success too.
A similar comparison between assessment of priority and performance, which was made by respondents of Swedish School of Library and Information Studies (SSLIS), is presented in Figure 6. Here, the differences appear more significant relating to Q14 and Q6 too. The differences, giving high priority tend to relate to Q4 - Physical atmosphere of library (equipment, lighting, noise, reading facilities, photocopy), and Q11 - In-house training and education of users, and Q15 - Procedures to facilitate to do research. While those with low figures tend to relate to other aspects of library service area. In this case not only differences between priority and performance are of interests, but also the ranking order of high assessments.

**Figure 5.** SBI respondents perception of library priority and performance.

**Figure 6.** SSLIS respondents perception of library priority and performance.
Figure 7, illustrates how priority and performance assessments of the respondents belonging to School of Health Sciences (SHS). The two highest priority areas compared with performance were Q 14 as well as Q13- Loan’s period of current course literature. Here, the ideal results are Q15 and Q12- Provisions of up-to-date books, journals, and other information sources, which indicate nearly full balance between priority and performance, is significant.

![Figure 7. SHS respondents perception of library priority and performance.](image)

Figure 8, represents an illustration of information collected from respondents belonging to School of Educational and Behavioural Sciences (SEBS). The difference between the priority and performance level in the area related to Q14 is particularly marked. This should alert the library to a need for improved performance in this particular area. Service areas related to Q2, Q4, Q6 and Q8 indicates differences between priority and performance but not too much prominent.

![Figure 8. SEBS respondents perception of library priority and performance.](image)

Figure 9, compares perception of performance and priority among respondents belonging to the School of Engineering (SE). In this case average of both priority and performance are fairly low and at the same time Q14, Q15, Q8 and especially Q1- Access to databases (online...
and CD-ROM), indicates pronounced differences. Regarding Q1, shortcomings with databases was mentioned in the library director’s interview too. Indicators of other service areas show relatively an even difference too, except Q 3- interlibrary loan services.

![Figure 9](image1.png)

**Figure 9.** SE respondents perception of library priority and performance.

Figure 10, shows a very low assessment of priority and performance and in the service area related to Q14 indicator illustrates a sharp difference. The differences between priority and performance levels in areas related to Q4, Q6 and Q15 are also remarkable. Remaining service areas shows differences too. This library is a little branch of UCB’s library, which is located in the School of Textiles (ST) and the indicators illustrated in Fig 10 likely shows respondents’ assessments that usually use this library.

![Figure 10](image2.png)

**Figure 10.** ST respondents perception of library priority and performance.
Figure 11, illustrates the perception of the UCB’s teachers of the library priority and performance. Here some explanation is necessary. First of all the teacher group cannot be compared with the other categories due to the context of the statements used in questionnaires and because the character of the teacher’s perception can be influenced by using other statements which are directly related to their needs. Of course statement cover the general activities and function of the library, and in providing the statements not only the library documents and the interview has been the guideline, but also the attention has been paid to this group of users too. On the other hand the number of respondents in teacher group was 12 and one of the returned answers was invalid, thus decrease in the number of respondents has influenced the rank and level of priority and performance indicators. However the result areas in this group which is initiated by T showed not too much differences between priority and performance and the only significant difference was related to Q12 and Q15. The ranking of Q12- Easy to use the library’s web-site, where performance level was assessed higher than priority was of interest.

Figure 11. Teachers’ perception of library priority and performance.

Figure 12 illustrates a general comparison of priority and performance seen by respondents of different academic schools and the teachers of UCB. Here again it is important to mention that the teachers category indicators which shows both low priority and performance is exceptional, depending upon the differences in the number of respondents compared with other categories. Otherwise, this group poses high average of score. The highest average of perceived priority assessments which is 72 points out of 90 belongs to Swedish School of Library and Information Science and the lowest points which is 50 belongs to School of Textile. The following table shows differences in assessment of both priority and performances of the UCB.


<table>
<thead>
<tr>
<th>Schools &amp; teachers</th>
<th>Priority</th>
<th>Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>SBI</td>
<td>60</td>
<td>49</td>
</tr>
<tr>
<td>ST</td>
<td>50</td>
<td>37</td>
</tr>
<tr>
<td>SHS</td>
<td>67</td>
<td>59</td>
</tr>
<tr>
<td>SE</td>
<td>62</td>
<td>52</td>
</tr>
<tr>
<td>SEB</td>
<td>68</td>
<td>52</td>
</tr>
<tr>
<td>SSLIS</td>
<td>72</td>
<td>55</td>
</tr>
<tr>
<td>T</td>
<td>48</td>
<td>46</td>
</tr>
</tbody>
</table>

**Table 1.** Rate of assessment of priority and performance by UCB’s respondents.

Noteworthy differences between priority and performance in both variables in relation to every category as well as the ranking are in themselves of interest. Again it most be mentioned that school of Textile that usually has access to a branch of the main library is exception. This means that it is likely that the respondents assessments possibly are based on the branch of the library not the library as a whole.

![Comparison of assessment of priority and performance by UCB](image)

**Figure 12.** Comparison of assessment of priority and performance by UCB.

The third part of the questionnaire, “how would you rate the overall success of the library?” provided another a success indicator that is illustrated in Figure 13. The success indicator assessed by different categories, which is over the middle point, confirms reasonableness of the results from the first and the second part of the questionnaire. The results for all departments are over the average i.e. 3 points. Here the result is calculated in relation to the number of the respondents and therefore there are no exceptions and no differences among different categories for the calculated results. The most interesting point was that the teacher category and SLISSL indicated the highest assessment of success, while the remaining categories share fairly the same level. Another significant aspect is the result area belonging
to respondents of School of Textile may point either to problem with the design of survey, or it can be related to the problem with the location of the library.

**Figure 13.** Overall success of the library assessed by all categories of respondents.

A comparison of the assessment of priority and performance of service areas from the respondents’ point of view took form outlined in Table 2.

<table>
<thead>
<tr>
<th>Different departments and teachers of UCB</th>
<th>ST</th>
<th>SBI</th>
<th>SHS</th>
<th>SE</th>
<th>SEB</th>
<th>SSLIS</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q 1</td>
<td>0.83</td>
<td>0.94</td>
<td>0.84</td>
<td>0.74</td>
<td>0.84</td>
<td>0.97</td>
<td>0.88</td>
</tr>
<tr>
<td>Q 2</td>
<td>0.86</td>
<td>0.85</td>
<td>0.86</td>
<td>0.87</td>
<td>0.83</td>
<td>0.81</td>
<td>0.95</td>
</tr>
<tr>
<td>Q 3</td>
<td>0.78</td>
<td>0.83</td>
<td>0.85</td>
<td>0.98</td>
<td>0.74</td>
<td>0.86</td>
<td>1.06</td>
</tr>
<tr>
<td>Q 4</td>
<td>0.61</td>
<td>0.78</td>
<td>0.86</td>
<td>0.89</td>
<td>0.76</td>
<td>0.68</td>
<td>1.02</td>
</tr>
<tr>
<td>Q 5</td>
<td>0.79</td>
<td>0.76</td>
<td>0.69</td>
<td>0.76</td>
<td>0.86</td>
<td>0.69</td>
<td>1.00</td>
</tr>
<tr>
<td>Q 6</td>
<td>0.70</td>
<td>0.73</td>
<td>0.81</td>
<td>0.89</td>
<td>0.75</td>
<td>0.81</td>
<td>0.96</td>
</tr>
<tr>
<td>Q 7</td>
<td>0.83</td>
<td>0.91</td>
<td>0.82</td>
<td>0.90</td>
<td>0.88</td>
<td>0.84</td>
<td>0.91</td>
</tr>
<tr>
<td>Q 8</td>
<td>0.73</td>
<td>0.80</td>
<td>0.91</td>
<td>0.77</td>
<td>0.81</td>
<td>0.84</td>
<td>0.95</td>
</tr>
<tr>
<td>Q 9</td>
<td>0.79</td>
<td>0.76</td>
<td>0.95</td>
<td>0.83</td>
<td>0.76</td>
<td>0.68</td>
<td>0.91</td>
</tr>
<tr>
<td>Q 10</td>
<td>0.84</td>
<td>0.84</td>
<td>0.89</td>
<td>0.91</td>
<td>0.98</td>
<td>0.92</td>
<td>0.94</td>
</tr>
<tr>
<td>Q 11</td>
<td>0.79</td>
<td>1.09</td>
<td>0.77</td>
<td>0.71</td>
<td>0.88</td>
<td>0.62</td>
<td>0.82</td>
</tr>
<tr>
<td>Q 12</td>
<td>0.84</td>
<td>0.95</td>
<td>0.98</td>
<td>0.89</td>
<td>0.99</td>
<td>0.94</td>
<td>1.34</td>
</tr>
<tr>
<td>Q 13</td>
<td>0.76</td>
<td>0.70</td>
<td>0.67</td>
<td>0.94</td>
<td>0.68</td>
<td>0.69</td>
<td>1.03</td>
</tr>
<tr>
<td>Q 14</td>
<td>0.49</td>
<td>0.49</td>
<td>0.49</td>
<td>0.71</td>
<td>0.27</td>
<td>0.38</td>
<td>0.93</td>
</tr>
<tr>
<td>Q 15</td>
<td>0.66</td>
<td>0.90</td>
<td>1.00</td>
<td>0.74</td>
<td>0.73</td>
<td>0.70</td>
<td>0.80</td>
</tr>
</tbody>
</table>

**Table 2.** Assessment of performance of library in percent in comparison with priority.
The figures in table 2 are meaningful and show how many percent the library’s performances are in comparison with the priorities perceived by different UCB’s respondents. We can see, for example, that the assessment of performance according to the School of Textile students perceptions is 83% of priority (cell ST/Q1. Access to databases, online and CD-ROM). The high intercorrelations between these variables (as represented in Table 2) indicates that the library’s performances, in those service areas that the users responded to, are not far away from the priorities perceived by respondents. In the context of priority and performance evaluation, the degree of correspondence between assessment of these two variables could be related to the success, thus, this result could be an indication for the success of the library. On the other hand, the priority and performance analysis of this kind shows only how many percent the performances are and any patterns cannot be derived from the figures alone. The reason why certain areas seem to require attention, and the type of action that should be fulfilled, would be a matter for discussion and consideration.
6. The results of the application of the method

At the first stage, CSF approach produced results of primary diagnostic nature i.e. decisive areas were identified. The very obvious mission statement of the UCB’s library, according to the written documents and the result of the interviews, were to meet the information requirements of the university community. The result revealed that the fulfilment of mission statement and achievement of library’s goals and objectives depends upon, not only the library’s function and activities, but also some managerial procedures, staff competence and housing and location of library. Thus four main categories as the critical success factors were identified. In another word services provided by the library cannot be carried out without paying special attention to these areas.

Library location and the problem of housing, according to the interviews and the documents has been the concern of the library during the last two years and a new building is going to be finished next year. By moving into a new building some problem will be solved, but the design and selection of different units and development infrastructures in such a way that facilitate more effective access to the services and paying attention to the cost-benefits should be the concern of the library and the staff. Like most of the libraries, much of the operating budget and space of the library spends on assembling collections and therefore library collection development is a matter of file organisation, concerned with where copies of documents are located and for how long and to facilitate access.

As Buckland (1992) argues collecting cannot be justified for its own sake but only as a means for the role and mission of the library. Thus, procedures has to be taken into consideration in order to facilitate access to documents for all users and at the same time paying attention to the role of the library which is to support the mission vision of parent organisation. This means that all departments have to be served equally and even. The library branch located in the School of Textile, was another important issue, which was also revealed by the analysis of the questionnaire. The library’s success can not be judged by the results concerning this branch of library.

The librarians’ competence and interest to serve the users was the third critical success factors identified by the investigation. Actually the librarians possess a high competence and education as the result of the second part of this case study revealed. Priority and performance method revealed that, not only the high rates the library’s overall success, but also satisfaction of the users can be interpreted as another sign of appreciation of the librarian proficiency. Of course some minor problem in the library as a complex organisation is inevitable. As Musmann (1978) argues some problem in most of the libraries can be interpreted by socio-technical theory that focuses upon three distinct areas namely, on the work itself, on the individual versus organisation and on job design. Musmann refers to the researches, which was done by Lynch (1974) and argues that the impact of the changing technology and the social environment and personal values are in conflict with the organisational concepts. The key to successful interrelationship among individuals, organisations and technology is to have responsibility and autonomous job behaviour.

According to Musmann autonomous behaviour can bee defined as self-regulation of work content and structure within the job, self-evaluation of performance, and participation in setting of job goals and objectives. Thus, successful job design depends upon finding
satisfactory solution to bridge the needs of organisation and its technology and the desired demand of employed individuals.

The forth and last area which was identified and considered as the critical success factor was library’s services. The application of the second stage of this approach, priority and performance method, made it possible to get some idea and clear indication about the services. Shortcomings in service areas according to the result of priority and performance, which are ranked and presented below, should alert the library and suitable provisions have to be taken in order to more satisfaction of the users.

1. Provisions of more copies of current course literature
2. Procedures to facilitate to do researches
3. Physical atmosphere of library (equipment, lighting, noise, reading facilities, photocopy)
4. In-house training and education of users

The priority and performance analysis also revealed differences among different respondent categories in their assessments of success of the library. First of all the outcome of the assessment of overall success of the library showed that the assessment of high degree of success belongs to the teachers category and the students of SSLIS. According to my interpretation and hypothesis, these two groups have acquired knowledge about how to use library services more effectively than the other groups and are more familiar with the techniques of information seeking. Thus, the library has to invest more time on training and education of the five other categories in order to make it possible that these categories to be able to use the library effectively too.
7. Conclusion and Discussion

Different dimensions of Critical Success Factor in a variety of research fields have been presented by a number of researchers, with different motivation and in various fields. Like most of the cases, to do the research was not the destination for me, but an expedition with constant scientific exploration and gaining new experiences and at the same time to be confronted with lots of problems. My assumption was that at a time when there is increased need for more precise targeting of university library resources and activities to “match” the university priority, a method and the ability to assess, analyse, evaluate and provide information about these targets, could make an invaluable contribution to the effectiveness and competitiveness of the university library. As Höglund, L. (1999) argues in information and library field a central question is how can we build up a system of information and library which make it possible, to “match” the information needs of different individuals and sections and the enormous supply of information in our society.

Thus, the primary purpose of the CSF survey was to explore and generate some evidence, which could contribute the assessment of those areas, which were especially decisive within the library. The CSF approach made it possible to identify a number of potential CSFs area i.e. Management, Staff, Service and the Location. These critical factors were by definition small in number but abstract in nature and covered a number of activities. Other activities and specific criteria and indicators can be identified by further analysis of each of these areas with in order to be able to measure performances covered in these areas. I don’t claim that I have identified all of these activities, therefore broader field was not explored fully in this report.

The study of the library management, that was based upon the conception that the library is a form of co-operative enterprise in which individuals unite for the achievement of common objectives. Thus, in order to be successful and to work effective requires appropriate managerial efforts. First of all, my assumption by the definition of management considers those activities which give direction to the group efforts, and which are intended to facilitate the union of the forces within the library, and according to the results and analysis this has been performed satisfactory. Otherwise, it was not possible to perform and give satisfactory services without appropriate managerial procedures.

General evidence allowed me the establishment of correlation between these particular factors related to the success of library. This was possible by conducting interviews and the study of the documents and paying careful attention to the “five prime sources of CSFs”, presented by Bullen and Rockart (1986, p. 390). These five prime sources of factor of every organisation are related to character of the organisation, history and competitive strategy, environmental factors, temporal factors and managerial position of the organisation, and can be identified by interviews and documents studies. Thus, documentary evidence of the library was interpreted in context of these sources. The library’s mission statement defined the character of organisation and the business the library is in. An insight into the history and the competitive strategy of the library was possible through conducting the interviews.

During the period of expansion of the UCB, appropriate contingency have been foreseen and provided and it was clear that the library has tried to take its relationship with the UCB for granted and has responded to these challenges. The UCB has become more than teaching institution and will carry out research in limited range of subjects and along with this process the justification for UCB’s library to attempt in an effort to anticipate expansionary
development of the future has been foreseen. Thus, it is obvious that the library has developed along with the environmental changes and challenges.

At the second stage of the research, priority and performance, the analysis and outcomes of the method revealed and identified the areas, which warranted particular attention. In order to avoid the problem with subjectivity of the interpretation of the results I have tried to relinquish my interpretation and only rely on the outcomes of the method only and not to recommend solution. The study of the temporal factors and managerial position of the library were based on the analysis of organisational effectiveness and success. As a mater of fact organisational effectiveness and success is composed of different dimensions and as Hall (1998) argues organisations can seek many and contradictory goals and therefore effectiveness criteria can change as an organisation moves through time. On the other hand the review of the literature made it possible to analyse the library effectiveness supported by the definition of effectiveness presented by Cameron approach (1978, p. 17).

According to Cameron (1978) organisational effectiveness is ”successful organisational transactions” relating to three key organisational aspects, input, process and output. The study of the library’s documents and the structure of library organisation revealed that organisational resource acquisition i.e. approaches which define effectiveness, as securing required organisational inputs were satisfactory.

Generally, effective and successful organisations generate valued and desired outcomes as well as satisfactory transaction between the library and its environment. Thus, at the second stage of investigation, a model of success that was described as participant satisfaction model, in which effectiveness is equated with the ability of the organisation to meet the needs and expectations of the users, was applied. The result of priority and performance investigation viewed library success and effectiveness as something, which was related to how well the library supports the goals of its host institution. In fact, the library success should be defined in terms of what the library does for or contributes to its constituencies or stakeholders, but we have to note that constituencies cannot always be trusted to have appropriate expectation for the library. Furthermore, in organisations, like a university with multiple constituencies with widely differing expectations is the major problem and thus constituency satisfaction can not be the only concern of the library and require careful budget allocation and designing activities.

A major result of the investigation was the confirmation that UCB’s library effectiveness and success, as perceived by the library organisation and the users. The result revealed that it was composed of many factors. In this study, four major factors drawn from library documents and interviews with the library staff and a number of minor dimensions which were based on responses to the questionnaire and drawn from priority and performance criteria were identified. The major CFS were outlined and presented. In order to secure the success of the library more attention must be paid to those minor dimensions, which compose these major four factors, and in doing so the library has at least to have criteria in the following dimensions:

- Physical Organisation: Criteria indicating efficiency of library’s housing, facilities, accessibility of materials and scope of professional services in the library.
- Staff development: Criteria indicating the extent of library staff’s competencies development and adequacy of library staff size and skills.
• Librarian/ department relations: Criteria indicating the extent of librarian interaction with UCB and responsiveness to the UCB’s goals and objectives.

• Evaluation of the library: Criteria indicating evaluation of the library’s services.

• Management techniques: Criteria indicating formal organisational management practice.

• Library collection adequacy: Criteria to secure sufficiency of support for user demand of different departments by the existing collections.

• Access/use of library collection: Criteria in order to identify the degree of faculty and students usage of on-site collections and services.

• Library goals: Criteria indicating library goal development and the degree of goal attainment.

• Feedback to the library services: Criteria indicating the extent of satisfaction of students, departments and college’s perception of the library’s contribution to academic growth.

• User education: Criteria indicating development of computer and technology -based educational projects for users.

It should be observed that an attempt was made to combine a number of dimensions related to those four major domains of success and effectiveness. It is important not to overinterpret these recommendations because they are only suggestive and it requires additional and closer investigation.

The domain of management requires more discussion, because the literature on libraries, as open and complex systems, emphasises that interpersonal relationships are critical for the success and effectiveness of these kinds of organisations. This refers to the complexity of services and tasks, which the individual performs within the context of the organisation. Unfortunately data material for more discussion about the management of library was not sufficient. Thus it was not possible to come to a clear conclusion.

As Burke (1995) argues the management profession is subject to the change, evolution and development and the old techniques and practices are continuously replaced with new ideas. Procedures like empowerment, creativity, participation in decision making, maintaining the feeling of self-worth and provisions for effective interpersonal relationships are a set of guidelines in the new managerial efforts.

Even the management of the library and its strategic plan is the setting of annual objectives which is the core of Management by Objectives (MbO) which was a popular approach to management in the 1960s and 1970s. There is no right or wrong answer to the question of management but it is important to apply methods, which are flexible effective.

So far I have largely ignored aspects relating the location of the library and library space. It must be admitted that only by moving into the new library building the problems concerning physical aspects of organisation without care and concern for utilisation of space can not be solved. Thus, for example, library should provide furniture and equipment sufficient to meet
its own task requirements and those of its users. Materials should be physically organised in such a way that they are readily accessible and space being efficiently used. The most heavily used materials should be stored in the most accessible locations. There are other creative and broadly useful procedures that the library can use in order to use its space more effectively.
8. Summary

The focus of this report was application of the critical success factor approach, as well as the evaluation of library and information services in the context of users perceived value, by applying the priority and performance method. Methodological aspects, for example, starting point and accessibility, were actively explored before starting the investigation. The study, which had a pragmatic and exploratory nature, revealed that both approaches were applicable.

The application revealed that the success of the library in accomplishment of its mission statement is related to at least four categories. By refining these CSFs, a number of activities that were vital and belonged to these categories, were assessed for further investigation. The goal was to find out correlation of these activities with those CSFs and at the same time to examine if the library have been successful in fulfilment of its mission statement, which according to the library documents and the context of conducted interviews, was to serve the university community.

At the second stage, priority and performance method made it possible to examine the relationship between library’s priority and performance. Interesting outcomes of investigation showed differences in priority and performances but the general results at this stage didn’t reveal any significant sign that could be interpreted as the library’s failure in accomplishment of its mission. The management of the library and staff perception was not possible to be examined in perfectly due to the problem, which I was confronted with. A general conclusion of the priority and performance of this case was interpreted according to the indicators, success was illustrated in areas where high performance figures were matched by high priority ratings. This relationship between priority and performance assessment was the basis for the comparative highlighting of the success.

As has been noted, a very significant implication of this research was the development of a model of evaluation for the academic libraries. The research reported here has discovered the interrelationship between variables (priority and performance) and the dimensions that appear to identify areas related to the UCB’s library success. Further research and analysis is required to assertion the relationship of the variables to effectiveness and success of the library. First, the implication and significance of this study were circumscribed by a set of limitations growing out of the problems and not the nature of the study. Second, the limitation of research data, not the theory have directed the development of the results. Finally, the nature of the data, which was limited to a few dimensions of the library’s priority and performance areas, may have influenced the nature of the results. Therefore, there should be caution in interpreting the results.

Further reports on actual application of the CSF approach and priority and performance within LIS environment is necessary in order to get more specific conditions and requirements for usefulness of application of this approach aiming at improving it as a standard systematic method of evaluation. Hopefully my research has contributed at least to show the applicability and usefulness of CSF and priority and performance methodology. I am convinced to continue my research in the field and apply the method in a broader scale.
9. References

Books and articles


**Electronic publications**

The documents of University College Library in Borås: uhttp://www hb.se/bib/doku/doku.htm (2001-2-7)


Wilson, T. Recommendation on CSF application. E-mail (2001-2-28)

**Interviews**

Personal interview with a librarian of the, November 1999

Personal Interview with the library director of the University college Library in Borås, 2001-2-5

**Oral**

Rekommendations of Tom Wilson 2001-2-28
10. Appendixes

Appendix 1

Identifying the value of library based information services
Success factors survey

Please circle the number that tells you HOW IMPORTANT, in your opinion, each factor is to the success of the library in which you work.

Not important   Very important

<p>| | | | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
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<th></th>
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<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Access to databases (online and CD-ROM)</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>2.</td>
<td>Availability and accessibility of library staff</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>3.</td>
<td>Clear goals and vision within the library</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>4.</td>
<td>Application of survey and other techniques to Identify user needs</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
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<tr>
<td>5.</td>
<td>Development and addition of new databases</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
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<tr>
<td>6.</td>
<td>Library service atmosphere (staff friendliness)</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>7.</td>
<td>Training of users in accessing resources</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>8.</td>
<td>Interlibrary loan services</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>9.</td>
<td>People and service orientation of library staff</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
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<tr>
<td>10.</td>
<td>Physical accessibility of resources</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>11.</td>
<td>Servicing of all sections of University College</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
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<tr>
<td>12.</td>
<td>Procedures for user feedback to library services</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
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<tr>
<td>13.</td>
<td>Physical atmosphere of library (equipment, lighting, noise, reading facilities)</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
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<tr>
<td>14.</td>
<td>Large spectrum of services and products</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
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<tr>
<td>15.</td>
<td>Size of collection</td>
<td>0</td>
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<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>16.</td>
<td>Quality of staff assistance to users</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>17.</td>
<td>Physical proximity of library to users</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
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<tr>
<td></td>
<td>Not important</td>
<td>Very important</td>
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<tr>
<td>18. Presentation of services and products (format Design, readability, etc)</td>
<td>0 1 2 3 4 5 6</td>
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<tr>
<td>19. Quality of information services and products</td>
<td>0 1 2 3 4 5 6</td>
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<tr>
<td>20. Range of material in collection (subject cover)</td>
<td>0 1 2 3 4 5 6</td>
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<td></td>
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<tr>
<td>21. Training and professional development of staff</td>
<td>0 1 2 3 4 5 6</td>
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<td></td>
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<tr>
<td>22. Regular communication between library and its parent organisation</td>
<td>0 1 2 3 4 5 6</td>
<td></td>
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<td></td>
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<td></td>
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<tr>
<td>23. Competence and qualification of staff</td>
<td>0 1 2 3 4 5 6</td>
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<tr>
<td>24. Staff satisfaction and motivation</td>
<td>0 1 2 3 4 5 6</td>
<td></td>
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<tr>
<td>25. Users’ participation in decisions-making</td>
<td>0 1 2 3 4 5 6</td>
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<tr>
<td>26. Library management and leadership</td>
<td>0 1 2 3 4 5 6</td>
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<tr>
<td>27. Marketing of library services and products</td>
<td>0 1 2 3 4 5 6</td>
<td></td>
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</table>
Appendix 2

Library Services
Priority and Performance Study

In your opinion, what *priority* should Library Services give each of the following:

<table>
<thead>
<tr>
<th></th>
<th>Very low priority</th>
<th>Very High priority</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Access to databases (online and CD-ROM)</td>
<td>0 1 2 3 4 5 6</td>
<td></td>
</tr>
<tr>
<td>2. Competence and qualification of staff</td>
<td>0 1 2 3 4 5 6</td>
<td></td>
</tr>
<tr>
<td>3. Interlibrary loan services</td>
<td>0 1 2 3 4 5 6</td>
<td></td>
</tr>
<tr>
<td>4. Physical atmosphere of library (equipment, lighting, noise, reading facilities, photocopy)</td>
<td>0 1 2 3 4 5 6</td>
<td></td>
</tr>
<tr>
<td>5. Procedures for user feedback to library service</td>
<td>0 1 2 3 4 5 6</td>
<td></td>
</tr>
<tr>
<td>6. Provisions of up-to-date books, journals, and other information sources</td>
<td>0 1 2 3 4 5 6</td>
<td></td>
</tr>
<tr>
<td>7. Understanding of users’ information needs</td>
<td>0 1 2 3 4 5 6</td>
<td></td>
</tr>
<tr>
<td>8. Range of material in collection (subject areas coverage)</td>
<td>0 1 2 3 4 5 6</td>
<td></td>
</tr>
<tr>
<td>9. Current awareness services</td>
<td>0 1 2 3 4 5 6</td>
<td></td>
</tr>
<tr>
<td>10. Timely delivery of products and services</td>
<td>0 1 2 3 4 5 6</td>
<td></td>
</tr>
<tr>
<td>11. In-house training and education of users</td>
<td>0 1 2 3 4 5 6</td>
<td></td>
</tr>
<tr>
<td>12. Easy to use the library’s web-site</td>
<td>0 1 2 3 4 5 6</td>
<td></td>
</tr>
<tr>
<td>13. Loan’s period of current course literature</td>
<td>0 1 2 3 4 5 6</td>
<td></td>
</tr>
<tr>
<td>14. Provisions of more copies of current course literature</td>
<td>0 1 2 3 4 5 6</td>
<td></td>
</tr>
<tr>
<td>15. Procedures to facilitate to do researches</td>
<td>0 1 2 3 4 5 6</td>
<td></td>
</tr>
</tbody>
</table>

Please continue on next the page
In your opinion, how well does the Library Services *perform* in each of the following areas?

Please circle the number that best gives an indication of your assessment.

Very poor  |  Excellent
---|---

1. Physical atmosphere of library (equipment, lighting, noise, reading facilities, photocopy) 0 1 2 3 4 5 6
2. Timely delivery of products and services 0 1 2 3 4 5 6
3. Access to databases (online and CD-ROM) 0 1 2 3 4 5 6
4. Range of material in collection (subject areas coverage) 0 1 2 3 4 5 6
5. Understanding of users’ information needs 0 1 2 3 4 5 6
6. Interlibrary loan services 0 1 2 3 4 5 6
7. Easy to use the library’s web-site 0 1 2 3 4 5 6
8. Loan’s period of current course literature 0 1 2 3 4 5 6
9. Procedures for user feedback to library service 0 1 2 3 4 5 6
10. Current awareness services 0 1 2 3 4 5 6
11. Competence and qualification of staff 0 1 2 3 4 5 6
12. Provisions of up-to-date books, journals, and other information sources 0 1 2 3 4 5 6
13. Competence and qualification of staff 0 1 2 3 4 5 6
14. Provisions of more copies of current course Literature 0 1 2 3 4 5 6
15. In-house training and education of users 0 1 2 3 4 5 6

Please circle the number that best gives an indication of your assessment of library success:

Very poor  |  Excellent
---|---

0 1 2 3 4 5 6

Thank you
Appendix 3

Interview schedule for Librarian

Perhaps we can begin by asking a few questions about the library.

1. Could you tell me a little about the history of the library?
2. Could you tell me about the staffing structure in the library?
3. What links do you have with the library central leadership?
4. Could you describe a few critical incident within the organisation? If so
   - Crisis
   - Success
   - How was the reaction of staffs
   - Who played the most important role in dealing with them?
5. What do you think about working in this organisation? In your opinion:
   - Which aspects are good/bad?
   - What do you like to be changed in the organisation?
6. What are the relationships among the staff themselves and with the leadership?
   - Conflicts
   - Harmony
   - Authority
   - Could you describe to me what are the relations between different sections within the organisation?
   - What kinds of meetings are arranged within the organisation?
   - How would you describe them?
   - What do they have for function?
   - Do they work?
Appendix 4

Interview schedule for library director
Perhaps I can begin by asking you a few basic questions about the library

1. Can you tell me a little about the history of the library?
2. Can you tell me about the staffing structure in the library?
3. What links do you have with the university central administration?
4. What sorts of services does the library provide?
5. Can you outline to me the library’s users group?
6. In your opinion does the library service and products are used efficiently?
7. Can you describe to me what the library’s goals are according to mission statement of the library?
8. Does the library have any other less formally stated goals?
9. Have there been other goals that have been important?
10. In your opinion what are those critical factors, which are crucial for goal attainment?
11. What are the written documents regarding the goals and objectives of the library? If possible may I get a copy?

Thanks