

**MEASURING EFFECTIVENESS OF UNIVERSITY LIBRARIES:
A CASE STUDY OF BANGLADESH**

BY

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ABSTRACT

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ABSTRACT

Introduction

Defining the term effectiveness is a complex phenomenon. Lexicons define effectiveness as “quality or state of being effective.” It seems very evident here that unless we understand the term effective, the term effectiveness cannot be defined. Dictionary of literary terms define effectiveness as the quality in writing which enables an author to produce effects and results intended or expected (Shaw, 1972). Therefore, effective means something designed to produce a distinctive or desired impression. The word effective is treated synonymous with effectual and efficient all meaning capable of producing results. Effectiveness stresses the ability to produce an effect or its actual production e.g: effective measure whereas efficient describes people or measures that achieve results with minimum of fuss and best use of resources (Longman, 1984). Therefore, effectiveness can be defined as the quality of something if it produces the results that it was intended to.

Library effectiveness cannot be studied by studying one or other variable of the library. Library effectiveness has to be understood as interconnected and interrelated multifaceted approach. The library is the trinity of three items namely staff, user and books (collection and services). Therefore in order to understand the library effectiveness all the items of the library has to be taken into consideration. This study has tried to understand library effectiveness as a multifaceted and has tried to study staff, user and other aspects of the library. The main variables deliberated for the purpose of this study are organizational climate of libraries, leadership styles of librarians, job satisfaction of librarians and user satisfaction of the library patrons.

Objectives of the Study

Therefore, it is concluded that instead of taking a single criterion to measure library effectiveness, integrated and synthesized view of various criteria will be able to measure the overall library effectiveness. The following variables are considered for the present study:

- (a) ***The relationship between the pursuit of organizational goals and the required tasks of individuals:*** Leadership behaviour styles, job satisfaction and organizational climate are considered to maximize the effectiveness of library professional.
- (b) ***Library's interaction with user:*** User satisfaction is taken as important variable for library effectiveness.
- (c) ***Library inputs:*** The level of library inputs in terms of budget, physical facilities, services and information technology inputs are taken as a measure of library effectiveness.

The main objective of the present study is to measure effectiveness of university libraries. The sub-objectives arising out of it are:

1. To identify the leadership behavioural styles of library professional.
2. To measure the levels of job satisfaction of library professional.
3. How does the background variable affect leadership behavioural styles and job satisfaction of library professional?
4. To determine the organizational structure of various libraries.
[*The organizational structure and processes are determinates of climate which in turn determines organizational effectiveness by Khandwalla (1988)*]
5. To measure the outputs in terms of user's satisfaction.
6. To measure the level of library inputs in terms of other resources namely, budget, physical facilities, services, and information technology inputs.

Hypotheses

The underlying assumptions are that library effectiveness is influenced by the behaviour of the library professional. The behaviour of library professional is measured in terms of leadership behaviour styles and job satisfaction. Certain organizational variables

also have their effects on library effectiveness. Keeping in view the above assumptions, following hypotheses will be tested:

Hypothesis # H₁: The favourable the organizational climate is, the more people oriented leadership styles the leader is having whereas, the less favourable the organizational climate is, and the authoritarian style the leader is having.

Hypothesis # H₂: The favourable the organizational climate is, greater is the satisfaction of the library professional on the job whereas, the less favourable the organizational climate is, and greater is the dissatisfaction of the library professional on the job.

Hypothesis # H₃: Age, qualifications, designations, tenure in present position, tenure in present organization, number of promotions and number of other organizations worked will not determine and influence the choice of a particular leadership style.

Hypothesis # H₄: There is no significant difference between job satisfaction and background variables namely age, qualifications, designations, tenure in present position, tenure in present organization, number of promotions and number of other organizations worked.

Hypothesis # H₅: Age, discipline, academic status, importance of the library and average library use in the university will not determine the satisfaction levels of library users.

Hypothesis # H₆: The favourable the organizational climate is in the library, greater is the satisfaction levels of library users whereas, the less the favourable the organizational climate is in the library, greater is the dissatisfaction of the library users.

Research Site

The universities in Bangladesh are categorized into public and private universities. The public universities are autonomous and funded by Government of Bangladesh whereas private universities are funded by non-governmental organizations. However, University Grants Commission of Bangladesh approves private universities. There are total of 40 universities (Public 17 and Private 23) in Bangladesh (UGC, 2001). Out of which, 23 universities (Public 8 and Private 15) are situated in the Dhaka. Since, majority (54%) of the universities are situated in Dhaka, following four university libraries, two from each category were chosen for the purpose of study:

Public Universities

- (i) University of Dhaka (DU)
- (ii) Bangladesh University of Engineering and

Technology (BUET)

- Private Universities** (i) North-South University (NSU)
(ii) Independent University of Bangladesh (IUB)

The population of the study includes library professional working in four university libraries and library users. All library professional of four universities is included in the sample. However, a random sample of 200 users each from four universities is drawn for user sample.

Table no: 1 Data Summary Regarding Sample

University	Category	Year of Est.	Library Professional	F	%	Questionnaires Distributed to Users	F	%
University of Dhaka	Public	1921	65	48	73.85	200	143	71.5
Bangladesh University of Engineering Technology	Public	1962	21	18	85.71	200	125	62.5
North-South University	Private	1992	7	5	71.43	200	130	65
Independent University of Bangladesh	Private	1994	8	7	87.5	200	139	69.5
Total	04	-	101	78	77.23	800	537	67.13

The Assessment Method

Primary data was collected using questionnaire methods. Questionnaire booklet were prepared “Questionnaire Booklet-1” (Appendix-I) and “Questionnaire Booklet-2” (Appendix-II) was used for library professional and for assessing user satisfaction respectively while as “Questionnaire Booklet-3” (Appendix-III) was meant for collecting the existing data from four university libraries. Primary data is collected using Questionnaire 1 & Questionnaire 2 and Questionnaire 3 is used for collecting data through secondary sources of information.

Questionnaire Booklet-1

A questionnaire “Questionnaire Booklet-1” based on standard scales and studies available in the current literature was prepared for assessing leadership behaviour styles, job satisfaction, organizational climate and background information of library professional. A total 192 items were divided into four sections. A summary is given in table:

Table no: 2 Survey Questionnaire Employed in the Study

Sections	Measures	Items	Cumulative Items	Scales
1	Leadership Behaviour Styles (LBS)	50	50	5 Point Likert Type
2	Minnesota Satisfaction Questionnaire (MSQ)	100	150	5 Point Likert Type
3	Organizational Climate (OC)	30	180	5 Point Likert Type
4	Background Variables (BV)	12	192	**

Note: ** Scale varies from single items measure to 9 items.

Questionnaire Booklet- 2

A questionnaire “Questionnaire booklet-2” based on a modified version of “University of Washington Faculty and Students Library Use Survey 2001” (University of Washington, 2001) was used for assign user’s satisfaction of four libraries. “The University of Connecticut Libraries Faculty Survey 1997” (University of Connecticut, 1997) and “Lingnan University Library User Satisfaction Survey 2001” (Lingnan University, 2001) was also used for the same purpose. These questionnaire were available online and downloaded. A total 119 items were grouped into 12 broad categories. Each items except items no. 3 and 7 were on 5 point Likert type scale. The details are shown in table:

Table no: 3 Survey Questionnaire Employed in the Study

Sl. no.	Variables	Items	Cumulative Items	Scales
1	Background variables	7	7	**
2	Purpose of Visiting library	9	16	5=more often, 4=weekly, 3= monthly, 2=quarterly, 1=less often.
3	Importance of sources of information	6	22	5=extremely important, 4=very important, 3=important, 5=less important, 5=not important.
4	Importance of library collections	13	35	5=extremely important, 4=very important, 3=important, 5=less important, 5=not important.
5	Satisfaction of library collections	13	48	5=extremely satisfied, 4=very satisfied, 3= satisfied, 5=less satisfied, 5=not satisfied.

Sl. no.	Variables	Items	Cumulative Items	Scales
6	Satisfaction of library services	13	61	5=extremely satisfied, 4=very satisfied, 3= satisfied, 5=less satisfied, 5=not satisfied.
7	Importance of library facilities	12	73	5=extremely important, 4=very important, 3=important, 5=less important, 5=not important.
8	Satisfaction of library facilities	12	85	5=extremely satisfied, 4=very satisfied, 3= satisfied, 5=less satisfied, 5=not satisfied.
9	Use of information technology	8	93	5=extremely likely, 4=very likely, 3= likely, 5=less likely, 5=not likely.
10	Opening period of library	11	104	5=always, 4=frequently, 3= sometime, 5=rarely, 5=never.
11	Top priorities of the library	12	116	5=extremely important, 4=very important, 3=important, 5=less important, 5=not important.
12	Overall satisfaction of library services	3	119	5=extremely satisfied, 4=very satisfied, 3= satisfied, 5=less satisfied, 5=not satisfied.

Note: Scale ranges 1-5 depending on the items.

Questionnaire Booklet-3

A third questionnaire “Questionnaire booklet-3” was prepared to identify the existing status of four libraries. This questionnaire was personally administered to librarians or in-charge of the four universities libraries identified for the purpose of this study. The researcher spent about two hours each with each respondent is explaining and helping him or her is giving appropriate and correct information. The information in the questionnaire was collected under following and broad categories. These are:

- (i) Budget of university libraries during the last three years
- (ii) Library collections during the last three years
- (iii) Library services and facilities provided to the users
- (iv) Total number of library professional and library users

The Statistical Method

The following statistical techniques were employed:

- (i) Factor Analysis with Varimax Rotation
- (ii) Inter-Correlation among the Inferred Variables and
- (iii) Analysis of Variance (ANOVA)

Discussions and Conclusions

The library effectiveness has not been measured in this study by measuring a single criterion, which has been the trend in the literature so far. Instead of taking one or the other criterion for studying library effectiveness, a multiple of variables were identified which will ultimately measure the overall effectiveness of libraries. Taking the synthesized and integrated view of studying the library effectiveness has been based on system theory and more or less on the model suggested by Du Mont and Du Mont (1979). All the three basic components of the library namely library and library personnel (staff), library users and library inputs (Books, etc) are measured here in order to arrive at the conclusion whether the library is effective or not. Organizational climate of the libraries, leadership styles of library professionals, job satisfaction of library professional, library user satisfaction and library input in terms of library budget, collection, services and facilities provided. The organizational structure and process are the determinants of climate which in turn determines organizational effectiveness. Organizational climates are categorized into favourable and unfavourable climates. It is assumed that the type of organizational climate will determine the organizational effectiveness. Library personnel being the important component of the library organization have a distinct relationship with the pursuit of organizational goals. Styles of supervision and motivational processes are directly related to effectiveness of library personnel. Different leadership styles that will induce different organizational climates have been tested already in various organizations and effective leader has been identified as one of the important variable of effective organization. Managerial performance is related to employee satisfaction, employee productivity and ultimately organizational effectiveness. Employee satisfactions are dependent on job satisfaction of the library personnel. Thus we can conclude that job satisfaction, leadership styles and organizational effectiveness are related to each other. It may be safely assumed that an effective organizational climate leads to satisfied employee. Further, satisfied employee will try to have people oriented leadership styles that will ultimately lead to the effectiveness of libraries

A library is a service institution. Its basic objective is to provide information in any form to its users. The quality of the services and facilities provided by the library to its users will also determine the effectiveness of the library. Quality of services and facilities can be measured in two ways either by evaluating the services in comparison to the best available in the world or measuring the satisfaction levels of the users on these services and facilities. This study takes into account the user satisfaction for ascertaining the effectiveness of the libraries. It is assumed that favourable organizational climate will lead to effective leaders in the library and that will ultimately lead to satisfied user which is the main basic objective of the library. Therefore, all the variables mentioned above are interlaced with each other.

Organizational Climate

The factor analyses of 30 items of organizational climate converge into four factors or variables of organizational climate. These are structure, reward & warmth; inter personnel relations and working conditions. Some of the experts also have identified these variables of organizational climate (Khandwalla, 1988; Kelly, 1974). Saraf (1995) also identified similar variables of organizational climate for Indian universities. These four show high relationship with one another. Among the four, structures emerges the strongest factor followed by reward & warmth and interpersonal relations respectively. Weakest factor is working conditions of the organizations. ANOVA was computed to see the ranking of four university libraries on these four factors and favourable & unfavourable organizational climates were identified. Bangladesh University of Engineering and Technology Library (BUETL) ranks first on three factors of organizational climate whereas; Independent University of Bangladesh Library (IUBL) ranks first and second on the strongest factors namely structure and reward & warmth respectively. University of Dhaka Library (DUL) has last rank on the factor structure and North-South University Library (NSUL) falls more or less in third place. On the basis of the rankings, libraries are categorised into favourable and unfavourable climates. Therefore, BUETL and IUBL are having favourable climate and NSUL and DUL are having unfavourable climate. However, DUL is having the least favourable organizational climate. This results show consistency with the information drawn from other

sources. BUETL is the only library having full-fledged librarian. The professionals working in BUETL are more qualified as compared to other university libraries. BUETL and NSUL are relatively new libraries and have the advantage of starting a fresh, which helped to recruit better-qualified young professional staff with knowledge of information technology. Even salary structure is very high as compared to private universities. Therefore, motivational levels are high and libraries are automated and provide better services to the users. In contrast, DUL having the unfavourable organizational climate is largest and oldest library with maximum old collection and staff. It inherits the problems of its own. The library is without librarian since last twenty years. It has to cater to huge population of more than 23,000 students and about 1300 faculty members and faces the staff and budget constraints. The staff is the oldest and less qualified as compared to other universities.

Leadership Styles

A total of 78 out of 101 (response=77.23%) library professionals of four university libraries (male=58, females=20) took part in the study. Majority of the respondents (87.18%) are in the age group of 20-50 years out of which 34.62% belong to 45-50 years. However 85.90% of them joined the profession before they were thirty years of age. Majority of them are having bachelors or masters degree in a academic discipline but only few of them are having masters in library and information science (37.2%). None of them have Ph. D but three of them have M. Phil degree in library and information science BUETL is the only university having university librarian and rest three universities are having only in charge or deputy librarians looking after them. 29.49% of professionals are having official cadre and rest are working as library officer, junior librarians, library assistants etc. Most of them get promotions once or twice in their service and have up to five persons reporting to them. The mobility of library professional is very low as most of them stay up to 20 years in the same organization (80%). Promotions are very slow and the respondents have to stay in the same position longer at least up to ten years. Since they have very few opportunities to move from one organization to another, they stay longer in the same organization and

working in other organization is very low. 61.15% respondents report that they never worked in any other organization and only 32.1% of them worked in one or two organizations.

Factorisations of fifty items on the leadership scale led to the congregation of five variables of leadership styles. These are named as participative, bureaucratic, nurturant, authoritarian and task oriented styles. These five leadership styles show high interrelationships. The most endorsed style is bureaucratic and participative styles. Authoritarian style falls somewhat in the middle and least endorsed styles are nurturant and task oriented styles. Thus, library professional rate themselves as bureaucratic, participative and some times authoritarian rather than having nurturant or task oriented styles. Structure variable of organizational climate has positive relationship with all leadership styles except task oriented. Bureaucratic also seem to be related with reward & warmth. Other two organizational climates do not show any significant relationship with any leadership style. It is however surprising to see that respondents rate themselves as bureaucratic rather than task oriented and nurturant. Further positive relationship between bureaucratic and reward & warmth is also baffling. Bureaucratic leader are cautious, conservative and have strict adherence to rules and regulations of the organization. They are also suspicious of someone pulling them down. They have no time to listen to the personal problems of the subordinates. Reward & warmth of organization climate is liberal climate giving autonomy to the person concerned to work. Good work is recognised and the person concerned suitably awarded. The only explanation for this is that people in Bangladesh or the library professional in particular idolise the bureaucrats for the position and power they yield in the society. The library professional may not be necessarily having bureaucratic style. This needs further research to explain the phenomenon. Since the four universities has been already categorised into favourable (BUETL and IUBL) and unfavourable organizational climates (NSUL and DUL), it was of interest to know that what type leadership style is endorsed in two types of organizational climates. ANOVA was computed with four university libraries. IUBL and BUETL are high on three people oriented styles whereas NSUL and DUL are ranking high

on authoritarian and task oriented styles. Thus, we can conclude that favourable organizational climates endorse participative, bureaucratic and nurturant styles of leadership and unfavourable organizational climates endorse more authoritarian and task oriented styles. Thus the *hypothesis # 1* “the favourable the organizational climate is, the more people oriented leadership styles leader is having whereas, the less the favourable the organizational climate is, and the authoritarian style the leader is having” is accepted. Comparison of private and public university libraries show that private university libraries are higher on people oriented styles and public university libraries are high on authoritarian and task oriented styles.

Further, leadership styles are influenced by the background variables of the respondents. More the age, professional qualifications, and tenure in present position and present organization, less the respondents endorse participative leadership style and bureaucratic styles. However, joining age and designations do not seem to influence any leadership styles. Task oriented being the least endorsed is hardly having impact of any background variables. Surprisingly all background variable have negative influence on leadership styles. Therefore null *hypothesis # 2* “age, qualifications, designations, tenure in present position, tenure in the present organization, number of promotions and number of other organizations worked will not determine and influence the choice of a particular leadership style” is rejected.

Job Satisfaction

The job satisfaction scale is pre-factorised into twenty variables of job satisfaction. These are ability utilisation, achievement, activity, advancement, authority, library-policies and practices, compensation, co-worker, creativity, independence, moral values, recognition, responsibility, security, social service, social status, supervision– human relation, supervision-technical, variety and working conditions. Besides, a general satisfaction scale is added which consisting of twenty variables, one each from twenty variables. Inter correlations are positively significant among 21 variable of job satisfaction variables.

Ranking of the 21 variables (ref: table no. 5.8 “Inter-Correlation and Mean score among Job Satisfaction”) suggest that general satisfaction tops the list of satisfaction variables followed by supervision–human relation, social service, ability utilisation and variety respectively. Library-policies & practices, compensation, achievement, advancement and recognition are variables, which are ranking last in the list. It was of interest to know how relationship between job satisfaction and different organizational climates of the libraries. Structure variable of organizational climate shows strong significance with achievement, recognition, supervision and working conditions. Thus we can conclude that higher the organization is in structure, people achieve more recognition, and working conditions are better. Other three variables namely reward & warmth, interpersonal relations and working conditions do not show any significant relationship with any job satisfaction variable. Background variables show very marginal influence on job satisfaction variables. Job satisfaction is lower if respondents are having high professional qualifications. The job satisfaction is higher if the persons work in more than two organizations. They are higher in ability utilisation, creativity, achievement and independence. Academic qualifications and joining age have no impact on job satisfaction. Respondents having higher designations are also lower in job satisfaction namely ability utilization, activity and technical supervision. In view of the above results and discussions null *hypothesis # 3* “there is no significant difference between job satisfaction and background variables namely age, qualifications, designations, tenure in present position, tenure in present organization, number of promotions and number of other organizations worked” is rejected.

ANOVA results of job satisfaction variables with university libraries show the rankings of each university libraries on each variable. IUBL is high on 14 variables and NSUL is high on 6 variables. DUL having the least favourable organizational climate is low on 17 variables but surprisingly it has the first rank on general satisfaction variable. BUETL ranks third on most of the variables. The results are mixed. Library professional in DUL (unfavourable organizational climate) are having satisfaction levels low on 20 variables. However, people here seem to be satisfied when general satisfaction variable is taken into consideration. BUETL (favourable organizational climate) do not seem to show satisfaction

with activity, advancement, compensation, and general satisfaction. Therefore it can be safely concluded that library professionals working in IUBL, NSUL are highly satisfied followed closely by IUBL whereas, professionals working in DUL show least satisfaction on the job. Thus, the *hypothesis # 4* “the favourable the organizational climate is, greater is the satisfaction of library professional on the job whereas, the less favourable the organizational climate is, greater is the dissatisfaction of the library professional on the job” is partially accepted. To see the difference between private and public university libraries, job satisfaction levels are very high in public university libraries as compared to private university with only exception of supervision of human relations. This is because these public university libraries are having very less professional staff as compared to private university libraries. Further, job satisfaction levels are influenced by professionals’ qualifications negatively. This is because majority of them are not highly professionally qualified. Working in more than one organization makes them more satisfied towards job. Ability utilisation, achievement, activity, creativity, variety and technical supervision are influenced negatively by designation of the person. Thus, we can conclude that library professionals working in private university libraries are more satisfied than professionals working in public university libraries. This is because that private university relatively very nascent have younger professional staffs that are better and more qualified especially in information technology areas. The libraries are equipped with state of art information technology and provide better and quality services to its patrons.

User Satisfaction

User satisfaction is the key component for assessing the library effectiveness. The more the users are satisfied, more the library will be effective is the basic premise. Assessing the user satisfaction of four university libraries came necessary to ascertain the overall effectiveness of university libraries. 537 users of four university libraries belong to faculty (27.56%), students (57.77%) research scholars (40.53%) and other staff members (6.15%). Users were categorised into three different discipline namely humanities (20.48%), commerce (34.63%) and science (44.87%). Majority of users are young and in the age group

of 21-30 (38.92%). This is very obvious because maximum users are students. Almost 69.46% of them are up to age of forty and 59.40% they are males. Library seems to be important to almost all of them (93.11%) but all of them do not seem to be satisfied with the library (73.27%). Users visit the library for consulting library staff, using library computers or browsing the shelves. Looking for a book or journal article is not reason for visiting library very often as only 33.15% users visit library everyday. Almost all of them visit the library at least once a month.

Majority of users have identified the importance of various library collections newspapers & magazines, online databases, current and back volumes of periodicals, books and reference collection emerge as extremely important to users. Manuscripts and other archival materials are least important. In contrast, users show very low satisfaction levels on all the items of library collection. Hardly anyone is extremely satisfied with periodicals, reference collections, special collections, bibliographical databases and online databases/internet. Only 33.89% users say that university library is extremely important to them. Other extremely important source of information is internet/web sources and departmental & institutional libraries. Out of thirteen already identified services provided university libraries satisfy only marginal or very few users. Specialised services like CAS, library databases and bibliographical services show very less satisfaction levels. For the purpose of this study, twelve facilities are identified. Users report that all of the facilities are extremely important to them but they are least satisfied with any of the facility provided by the librarians. Out of this 61.08% users show importance of PC and computer terminals whereas only 1.30% of them are extremely satisfied with what library is provided. This indicates that there needs a lot to be done in order to enhance the facilities to the expectation levels of users. Users also desire the library to be open especially during evenings and weekends. During these timings they want computer access, photocopying services, access to collection and a place to work in the library. In addition to this, respondents would like to use information technology for the purpose of being a more productive researcher by keeping current or up-to-date in discipline and finding citations to journal articles. Twelve top priorities for next two years identified for the purpose of this study are to provide

electronic access to old journals, increase library hours, add more computers, provide library consultation for researches, provide course reserve materials electronically, preserve library materials from deterioration, provide a safe environment for library users, provide training in using library / web resources, provide quieter study/work areas in libraries, computerization the whole library, provide unlimited access to internet sources, provide trained and efficient staff. Majority of users (app. 90%) says that all the above-mentioned priorities are extremely important to them.

Overall library satisfaction has been categorised into, overall satisfaction of services, overall satisfaction of collections and overall library satisfaction. Most of them seem to be satisfied on above three variables. Inter-Correlations computed between background variables and overall satisfaction levels show that higher the age, higher the average library use. Academic status also influences the library use. The people with higher status tend to have less satisfaction with the library. However, users belonging to different disciplines are not satisfied with the services provided by the libraries. Since most of the users are young and students, library is important to them as compared to faculty members. Three variables of overall library satisfaction are highly positively correlated. This shows, higher the satisfaction of library services and collections, higher will be overall library satisfaction of users on the library. Thus, *hypothesis # 5* “age, discipline, academic status, importance of the library and average library use in the university will not determine the satisfaction levels of library users” is partially accepted.

Further, it was of interest to know if favourable and unfavourable organizational climates make any difference to job satisfaction levels. ANOVA results shows that IUBL ranks higher on all the followed by BUETL closely. NSUL has third rank and DUL ranks the last on two items. We can conclude that users in IUBL and BUETL are more overall satisfied as compared to NSUL and DUL. This also shows that users are more satisfied with favourable organizational climate (IUBL, BUETL) and dissatisfied with unfavourable organizational climate (NSUL, DUL). Hence, *hypothesis # 6* “the favourable the organizational climate is in the library, greater is the satisfaction levels of library users

whereas, the less the favourable the organizational climate is in the library, greater is the dissatisfaction of the library users” is accepted.

A rating of these three variables show that private universities ranking is higher as compared to public universities. Thus we can conclude that collectively public university libraries are providing better facilities and services as compared to private university libraries. Since F ratios are significant on library services. This indicates that there is lot of difference between library services provided in private university libraries as compared to public university libraries. Users in private university libraries are more satisfied with library services and collections than public university libraries. Overall satisfaction levels are also high in NSUL and IUBL rather than BUETL and DUL as evident from table no. 6.19 “Overall Library Satisfaction Level (Public versus Private University Libraries)”. This is confirmed from observation also that private university libraries are providing better and information technology based library services as compared to public university libraries, which depend on more traditional methods of providing library services

Suggestions

Conclusions arrived so far show that library services and facilities are extremely important to users but at the same time users are not satisfied with the type of services provided to them. Further, two types of climates emerged namely favourable and unfavourable. Even though, a favourable organizational climate provides better services, still there is a need for a lot of improvement for better services and facilities. It is important to see the present status as well as the various types of facilities and services provided by the university libraries. It is very clear that DUL is the oldest university libraries and private university libraries namely NSUL and IUBL are established very recently. Total library budget is highest in DUL, followed by BUETL, IUBL and NSUL respectively. BUETL spends more on books and periodicals as compared to other libraries. As far as collection is concerned, all the libraries are not adding more than five thousand books to the library per annum. Maximum professional staff is in DUL being the oldest university library but it also caters to the huge population of 24,292 (UGC, 2001) users as compared to other university

libraries, which have very small population ranging from 3000-8000 users. In spite of the fact that DUL have largest budget but majority of it is spend on staff salaries and it spends less than BUETL on books and periodicals even though it has to cater to large population of users. Naturally ratio of spending per user is lowest for DUL and highest for BUETL and IUBL. The tables further show that the libraries are providing mostly traditional services rather than innovative services. Moreover collection in the DUL is old and updating is very slow because of the constraints in the budget. This is in contrast to private university libraries, which have got the advantage of having latest and quality collection. Faculty is seems to be involved in building library collection.

Users were asked to rate the twelve top priorities identified for the libraries for the next two years. Almost every one of the user said that they are extremely important or very important to them. Therefore, even though IUBL, BUETL are more effective than NSUL and DUL, none the less all the libraries need to improve upon the services and facilities to be provided to the users so that they favourable organizations remain the favourable and unfavourable organizations become favourable. The Services and facilities to be included by the libraries in next two years are suggested as follows:

- By provide access to e-journals and old journals
- Provide more computer access to the users by adding more computers to the library.
- By providing unlimited access to internet and internet related facilities.
- By providing the best physical facilities to the users so that they spend more time in the library
- By giving access to the library during off timings and weekends.
- The libraries should try to computerise the whole sections of the library
- By providing research consultants for the researchers.
- By reserving the course materials for the users electronically.
- Providing user education training programmes for using library and internet and web resources.
- Preserve the library materials especially non-book materials from deteriorations.
- Provide cubicles for the researchers in the library.

The favourable organizational climate is having efficient management style. The analysis has shown that BUETL, IUBL and NSUL are higher on efficiency than DUL. Both the private university libraries are having modern facilities by having their libraries fully automated inclusive of bar code technology etc. The public university libraries are still

picking up on the library automation. DUL is having the least effective organizational climate, management style and job satisfaction levels are very low. The professional are having mostly authoritarian style of functioning. Therefore it is suggested that libraries can improve upon effective management styles by taking following suggestions:

- ❑ Provide for in-service training regarding the latest trends in the field of library and information science
- ❑ Provide for the library professional staff to see and observe the functioning of other university libraries outside Bangladesh.
- ❑ Fill up the vacant post especially Librarian of DUL and raise the motivational levels of the staff by providing for career advancement schemes.
- ❑ Hold library staff accountable for the services to be provided to the users.
- ❑ Evaluate the library system from time to time using system approach to improve upon the existing system
- ❑ Public University libraries need to move faster on library automation and provide the users' latest information technology based services. This can be achieved by training the staff in latest developments in library and information science through in-service trainings so that their efficiency levels are increased.

Drawbacks of the Study

Even though, the present study has assessed the integrated model of library effectiveness taking behavioural and organizational perspectives into consideration by using available scales and methodologies. Scale used for organizational climate did not take into consideration the impact of information technology on organizational climates. It was felt during the course of study that besides, structure, inter-personnel relations, reward & warmth, and working conditions, input in terms of information technology would also influence the favourable and unfavourable organizational climate. The private university libraries are having more favourable organizational climate than public university libraries. This has been observed that private universities having more of information technology inputs in terms of complete automation of the libraries. Therefore, one of the drawbacks of this study is that some items of information technology inputs should have been added to the organizational climate scale and it should have been tested and verified statistically.

Initially, it was decided that two libraries, one each from private and public university would be studied. But on observation it was seen that professional staff of private university libraries is very less as compared to public university libraries. Finally four

university libraries two each from private and public universities from capital city of Bangladesh were selected. But statistical analysis shows that population especially of library staff should have been large enough to show better significant levels at ANOVA stage. Therefore, more university libraries should have been included in order to arrive at better results that could have led to better generalisations. Further, this type of study needs multiple time frame studies in order to see the difference between two time frames in order to generalise the conclusions. Due to the time constraints the study could not be replicated.

Over the years, library staff has identified user needs and expectations and their information seeking behaviour as important for providing services by lessening or eliminating any obstacles that may hinder user satisfaction. Even though, the user satisfaction is evaluated on library collections, library services and library facilities. It could have been of interest to know the information needs and expectations of users and their information seeking behaviour pattern and relate it with the results of user satisfaction levels. This would have resulted in more specific and qualitative suggestions for the improvement of library services based on desired information needs of library users.

Future Research

There are certain inherent problems in measuring library effectiveness because it desires the attention of the multiple variables simultaneously instead of one or two variables at a time. Further library effectiveness has to be seen as the integration of variables of organizational and behavioural perspective that makes it more difficult to arrive at a general model of assessing library effectiveness. The other problems identified by Alemna (1999) are:

- ❑ Lack of generally acceptable definition of performance evaluation and criteria of evaluation. Libraries being non-profit organizations, monetary yardsticks do not hold goods.
- ❑ The effects of library services are often not visible. They are indirect and subjective. The beneficiary of the service is the sole judge of its utility and effectiveness.
- ❑ The difficulties in developing reliable, objective and empirical tools and methods of measuring performance.

- The problems involved in translating the desired goals into utilities and perception among the patrons, staff and promoters as to the quality, depth and relevance of services to be promoted.

The present study has taken into account the inter play of organizational climate, leadership styles of librarians, job satisfaction of librarian and user satisfaction of patrons leading to the overall library effectiveness. This study is based on only four universities. Drawing conclusions on 78 observations of library staff and 537 observations of users is very small. Continued research is needed to test the tentative relationships among the above-mentioned variables in different environment and situations taking large sample into consideration before arriving at general conclusions.

Even though the literature is full of theoretical expositions on the topic, literature does not through much light on the empirical studies taking multiple variables into consideration. Even Du Mont and Du Mont (1979) in their review article on library effectiveness have not been able to identify all the variables to be measured for understanding library effectiveness. They say “although our understanding of all the variables is as yet incomplete, it appears that library effectiveness is influenced by the behaviour of the library staff as well as the ability of the library to interact with individuals and its communities in a variety of ways over time. Certain organizational variables such as structure and technology have their effect in this regard.” The present study has taken almost all the variables suggested above except the impact of technology on the organizational climates. It is surmised that information technology will effect the organizational climate of the library and that will ultimately influence the library effectiveness. Therefore, it is suggested that variable role of information technology on organizational climate should be included along with other variables to study the overall effectiveness of the libraries. Further, user satisfaction depends on the user needs and information seeking behaviour. It will be of interest to link user needs and information seeking behaviour with user satisfaction levels in any future studies.

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**MEASURING EFFECTIVENESS OF UNIVERSITY LIBRARIES:
A CASE STUDY OF BANGLADESH**

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**MEASURING EFFECTIVENESS OF UNIVERSITY LIBRARIES:
A CASE STUDY OF BANGLADESH**

BY

MUHAMMAD MEZBAH-UL-ISLAM

**Thesis Submitted in Partial Fulfilment of the Requirement of the Degree of
Doctor of Philosophy in the Department of Library and Information Science of
North-Eastern Hill University, Shillong-14, India.**

2003

Dedicated to My Respected Teacher and Ph. D Supervisor -
Dr. Veena Saraf.

THE NORTH-EASTERN HILL UNIVERSITY

April 2003

I, Muhammad Mezbah-ul-Islam, hereby declare that the subject matter of this thesis is the record of work done by me, that the contents of this thesis did not form the basis of the award of any previous degree to me or to the best of my knowledge to anybody else and that the thesis has not been submitted by me for any research degree in any other University/Institution.

This is being submitted to the North-Eastern Hill University for the degree of Doctor of Philosophy in Library and Information Science.

(M. Mezbah-ul-Islam)

(Veena Saraf)
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Supervisor

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Shillong:
3 April, 2003

(Muhammad Mezbah-ul-Islam)

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LIST OF ABBREVIATIONS

BUETL	Bangladesh University of Engineering and Technology Library
DUL	University of Dhaka Library
IBUL	Independent University of Bangladesh Library
NSUL	North-South University Library
PRUL	Private University Libraries
PUUL	Public University Libraries

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CHAPTER 1

INTRODUCTION

1.0 Introduction

Defining the term effectiveness is a complex phenomenon. Lexicons define effectiveness as “quality or state of being effective.” It seems very evident here that unless we understand the term effective, the term effectiveness cannot be defined. Dictionary of literary terms define effectiveness as the quality in writing which enables an author to produce effects and results intended or expected (Shaw, 1972). Therefore, effective means something designed to produce a distinctive or desired impression. The word effective is treated synonymous with effectual and efficient all meaning capable of producing results. Effectiveness stresses the ability to produce an effect or its actual production e.g: effective measure whereas efficient describes people or measures that achieve results with minimum of fuss and best use of resources (Longman, 1984). Therefore, effectiveness can be defined as the quality of something if it produces the results that it was intended to.

1.1 Organizational Effectiveness

Effectiveness when applied to organizations usually means the “degree to which predetermined goals are achieved” (Rao and Rao, 1995). Organizational effectiveness refers to the accomplishment of organizational goals and objectives and centres more on human side of organizational values and activities. Some of the important approaches to study organizational effectiveness are goal approach, system approach, strategic constituencies approach, behavioural and time dimension approach. But all these approaches do not lead to a

single measure to determine whether an organization is effective. Some of the measures of organizational effectiveness are, goal attainment, social responsibility, social values, stability and integration, satisfaction of employees, participants and clients and many more. There seems no consensus as to what should be included in organizational effectiveness. Argyris (1964) suggested three core activities as a true measure of organizational effectiveness and not the mere achievement of the set goals. These activities are: achievement of multiple objective, maintenance of interdependence among organizational sub systems and adaptation to the external environment. According to him, an organization increase in effectiveness as it obtains following:

- ❑ Increasing outputs with constant or decreasing inputs;
- ❑ Constant outputs with decreasing inputs and
- ❑ Ability to accomplish in such a way that it can continue to do so.

Criterion for total organizational effectiveness is an integration of three effectiveness score. Libraries as an organization are part of total social system and theories of organizational climate are applicable to libraries also. Libraries growing concern with effectiveness comes, in part because they are caught in a squeeze of rising costs and expectations and increasing competitions for public funds. The management literature offers four main approaches to effectiveness. The goal model defines effectiveness in terms of the organization's achievement of specific ends. The process model is concerned with internal processes and organizational health. The systems resources model emphasizes the organization's need to secure resources from its environment. And the multiple constituencies model defines effectiveness as the degree to which the needs and expectations of the organization's constituent groups are met and these models are not mutually exclusive (Childers and Van House, 1993).

1.2 Library Effectiveness

Libraries are perceived as social organization with a sense of direction. They are structured to carry out the functions of rendering information services to the society. Modern society is an information-based society where information as a resource plays a dynamic role in the management and dissemination of information. Libraries as an organization are continuously interacting with individuals, groups and library organization is in continual state of adoption. There seems general consensus that libraries should attempt to be effective but there is a lack of agreement on what the concept effectiveness means. Most of the experts take one or two criteria to define library effectiveness. One major group sees library effectiveness as achievement of goals and objectives by doing the right thing in order to support the parent organization (Gelfand, 1958; Pings, 1968; Stecher, 1975; Cayless, 1976; Ralli, 1987; Moore, 1992 and Prytherch, 1995). Cost minimisation in attaining goals and objectives is also taken as effectiveness variable by many experts (Bandura, 1977; Vickery and Vickery, 1987; Alema, 1999). Third major group measures effectiveness by the efficient use of resources in optimising performance. Participation of library staff in determining the goals, function of the librarian's ability to change his perceptions about what is important in library service, or the ability of the librarians to be creative in their interactions with materials and users (Dougherty, 1972; Hershfield, 1972; Jones, 1976). Another major group equates library effectiveness with user satisfaction. This means the degree to which the library is able to meet the demands of the users (D'Elia and Walsh, 1983), measures based on users opinion or attitudes relating to the quality of the library or user satisfaction of the specific request (Stecher,1975). Some experts have also suggests systems approach to assess library effectiveness. The system model of Du Mont (1980) propose that structure, knowledge,

techniques, equipment, facilities, users, personnel etc. are inextricably linked and to consider one means consider them. The model, further emphasis three major aspects: the notion that achieving library effectiveness is a dynamic ongoing process, the perceptions that inputs and outputs are likely to change over time and the outlook that individual human beings (both within and outside the library) affects perceptions of library success or failure. She identified three elements within the model namely library employee, the library itself and individual user itself.

All the above definitions take one approach or other to define library effectiveness and none of them take a holistic approach to identify library effectiveness except Du Mont in 1980. The discussion of the organizational effectiveness also shows that it is the study of multi variant construct rather than assessing the single variable. Du Mont and Du Mont (1979) while reviewing the all approaches and literature on library effectiveness tried to synthesize all major approaches to assess library effectiveness by declaring that most of the authors have rather incomplete views of the components that determine library effectiveness. Summary of major approaches identified by them are as under:

- ❑ Library inputs as perceived by the library structure. This includes library structure, organised services etc.
- ❑ Relationship between the pursuit of organizational goals and the required tasks of individuals (organizational dynamics). This means the maximising the library personnel resources. Managerial styles, job satisfaction and motivational levels of staff are considered to be related to library effectiveness.
- ❑ Library's interaction with users. Satisfied users and proportion of frustrated users are some of the important variables for assessing library effectiveness.
- ❑ Successful interaction between the library and its environment is the major measure of effectiveness. This relates to the outcome of library services.

It was during 1980s that saw experts talking about library effectiveness as multiple construct rather based on single variable. According to Pritchard (1996) library effectiveness have ranged from technical efficiency measures to vague statements of goodness, but most have focused on goal achievement, efficiency, user satisfaction, personnel management and the ability of the organization to survive. Library effectiveness is considered in terms of objective measures in satisfying needs. Effectiveness relates to outputs and the overall criterion of effectiveness is the proportion of user demands that are satisfied. The benefits of the system are really desired outcomes (Lancaster, 1988). Library effectiveness and evaluation of a library's performance depend on the resources, staff, user satisfaction and cost (Ifidon, 1986). Different authors have taken different dimensions to study library effectiveness. The only comprehensive approach was taken by Childers and Van House in 1993 while describing the public library effectiveness. They analysed eight dimensions of library effectiveness through factorization. These are as follows:

- (a) *Traditional Counts of Library Activity:* (Use and users, number of visits to library, reference volume, circulation, variety of users, materials turnover, materials expenditure, total expenditures, program attendance, in-library use, materials owned, staff size, reference fill rate, staff expenditures, equipment usage, use of library compared to other services/ events).
- (b) *Internal Processes:* (Managerial competence, staff morale, staff quality, efficiency of library operations, written policies, goal achievement, staff helpfulness, safety of users, support of intellectual freedom).
- (c) *Community Fit:* (Community awareness of offerings, users' evaluation, contribution to community well-being, services suited to the community, public opinion, flexible of library management, relations with community agencies, community analysis, staff suitability to community, public relations, staff contact with users).

(d) *Access to Materials:* (Information about other collections, inter-library loan, cooperation with other libraries, speed of service, materials availability, extent services are free).

(e) *Physical Facilities:* (Building appeal, convenience of building location, building easy to identify, parking, building suitability).

(f) *Boundary Spanning:* (Political and fiscal validity of the library, board activeness, voluntary contributions, library products, energy efficiency of building, continuing education for staff, planning and evaluation, public involvement in library decisions).

(g) *Service Offerings:* (Range of materials, range of services, convenience of hours, materials quality, newness of materials).

(h) *Service to Special Groups:* (Handicapped access, special group services).

1.3 Operational Definition of Library Effectiveness

From the above discussion of library effectiveness, experts defined library effectiveness as related to one variable or the other. It was only in 1979 that Du Mont and Du Mont model integrated behavioural and organizational perspectives into an overall model of library effectiveness. According to this model, effectiveness is influenced by the behaviour of the library staff as well as the ability of the library to interact with individuals and its communities in a variety of ways over time. The present study is more or less based on this study and takes library effectiveness as multiple variable constructs. The basic premise is that assessing the library itself, library professional and library users together in an integrated approach will assess library effectiveness. Therefore, for the purpose of this study following variables are considered for the library effectiveness:

- a. Organizational climate of libraries
- b. Leadership behavioural styles of library professionals
- c. Job satisfaction of library professionals

- d. Satisfaction of the library users for library facilities, services, collection (User Satisfaction)

1.31 Organizational Climate

Organizational effectiveness is the outcome of the organizational contextual, structure, strategic and process variables. Organizational Structure refers to properties and processes of organization that exists without regard to the human components of the system while 'Climate' is the perception of the organization as a whole (Schneider, 1975). This organizational structure and process are determinates of climate which in turn determines organizational effectiveness. Organization climate is defined as a set of characteristics that describe an organization and these characteristics are organization's philosophy, purpose, functions, and structure of organization. Litwin and Stringer (1968) included more characteristics to constitute organizational climate. These are the one's feelings regarding the structure of organization, procedure, red tape, loose-strict, formal-informal atmosphere, reward, risk, warmth, support, and standards of performance, conflict resolutions and one's identification with the organization. Organizational climate has been investigated as a possible determinant of the various leadership styles. Bass (1990), one of the experts say "the surrounding organization and its policies, size, structure and culture are of particular consequence to leader subordinate interactions." Although the organization and its culture influence what is expected of the leader and what they will do, the leader in turn, shape their organization and culture to fit their needs. The leader's discretionary and nondiscretionary behaviour depends on organizational and administration consideration.

Thus, the above discussion of shows that the variables required to describe organization climate are numerous. They can be broadly classified into extraneous and intrinsic variables. One of the intrinsic variables “output” is a measure of organizational effectiveness meaning objectives, attitudes, satisfaction of job, employee, supervision, job security, financial security and pride in organization. Thus, with so many variables of organizational climate, it is unlikely that organizational climate and its effectiveness could be reduced to a large measure or indicator. There seems no rationale to include or exclude any particular variable other. Literature also does not through much light as to what organizational climate factors are important in a particular situation. In libraries also, there is lack of understanding of how to create or alter the organizational climate so as to make it conducive to desired professional activities (Soudek, 1983). Since leadership behaviour styles and job satisfaction of library professional are some of the variable to be studied for assessing the effectiveness of libraries, organizational climate is conceived as attributes of organization as perceived by its members. Further, it is assumed that favourable or unfavourable organizational climate will mediate leadership styles and job satisfaction of library professionals. It will also influence the satisfaction and dissatisfaction of the library users.

1.32 Leadership Behaviour Styles

Leadership is the most observed and least understood phenomenon. It is very difficult to define leadership and arrive at general consensus. Bass (1990) reviewed 7,500 studies related to various aspects of leadership and identified almost 350 definitions of leadership. He further, concluded that the search for the one and only one proper and true definition of leadership seems to be fruitless, since the appropriate choice of definition should depend upon on the methodological and substantive aspects of leadership. Leadership may be considered as

the process of influencing the activities of an organised group in its efforts towards goal setting and goal achievement (Stodgill, 1950). Leadership is defined as the process of influencing the activities of the organized group towards goal achievement (Rauch and Behling, 1984). Another important expert, Fielder (1967) defines leadership as “by leader behaviour we generally mean the particular act in which a leader engages in the course of directing and coordinating the work of his group members” or leadership may be defined as leader behaviour of an individual which he is involved in directing group activities (Hempill, 1949). Thus, we can summarise that leadership may involve such acts as structure, the work relations, praising or criticizing group members and showing consideration for their welfare and feeling. For the purpose of this study, leadership is defined as the ability of the leader to influence and persuade his subordinates so that they willingly contribute to achieve organizational goals and objectives. Leadership styles and behaviour are treated as synonyms. Literature shows that the most of the leadership theories have dichotomy of task versus people oriented styles of leadership. Various combinations of task and people oriented styles that are combined to give effectiveness of leadership styles. These types of leadership styles are viewed as multidimensional continuum having authoritarian style on one extreme and the participative style on the other. For the purpose of this study, leader behaviour or style is assessing the boss or superior and following types of leadership styles are identified:

Authoritarian Style

Authoritarian leader is the one who uses his power to be strict rather than lenient, to supervise closely and to ensure adherence to procedure. Components of the authoritarian personality are rigidity, self centeredness, suspicion, insecurity and anxiety. The tasks are accomplished but subordinates are dissatisfied.

Bureaucratic Style

Bureaucratic style rests on belief that authority is legal. They are conservative, unwilling to take risk and impersonal in thinking. Their authority breeds arrogance.

Task oriented Style

The people with strong concerns to achieve goals are considered task oriented styles. Successful task oriented leaders contribute in their groups effectiveness by setting goals. They are neither sensitive nor aggressive.

Participative Style

Participative style is synonymous with democratic, considerate, and non directive style. Leader shares the decision making policy with his subordinates. Participative leadership is more effective as the whole group feels satisfied and every member has the opportunity to gain recognition and self worth.

Nurturant Style

Nurturant style leader cares for his subordinates, shows affection, takes personal interest in their well being. He takes personal interest in their well being, his personal warmth create a climate of trust and understanding where subordinates grow up and acquire maturity. Sinha (1980) identified Nurturant as the preferred style in India. What should determine the effectiveness of a library as a leader? Librarian's effectiveness can not be determined in terms of productivity. However effectiveness of a librarian can be measure as how his subordinates and library patrons are satisfied. Library leaders are primarily responsible for serving the need of entire staff so that they, in turn can provide the best possible service to library patrons. Thus, leader's role is to nurture cooperative relationship among the subordinates while making sure that they need to enable them to do their job effectively. Effectiveness of

librarians is determined in relation to his subordinates and situational factors namely organizational climate and background factors for the purpose of this study.

1.33 Job Satisfaction

The job satisfaction is one of the most researched and talked about in the literature of personnel management. Again understanding job satisfaction is not easy task as variety of variables used to describe it is taken into consideration for job satisfaction. In general terms, job satisfaction is the emotional response of the employee towards his job environment rather than rational response. Emotional response can be in relation to his pay, work, promotions opportunities, fellow workers and supervisors. Locke (1976) defines job satisfaction as “emotional reaction that results from the perception that one’s job fulfils or allows the fulfilment of one’s important job values, providing and to the degree that these values are congruent with one’s needs.” Spector (1985) defines job satisfaction as “an emotional–affective response to a job or specific aspects of a job: it is assumed to represent a cluster of evaluate feeling about a job.” Thornton (2000) while reviewing literature summed up the definitions of job satisfaction as follows:

Job satisfaction is a dynamic changing idea that reflects an individual’s attitudes and expectations towards his work and goals in life.

Job satisfaction is the feeling an employee has about his pay, work, promotions, opportunities, coworkers and supervisor.

Job satisfaction refers to the feelings and emotional aspects of individuals’ experiences towards their job, as different from intellectual or rational aspects.

Thus, in the light of above discussions, Job satisfaction is taken entirely personal measurement of an individual's assessment of the job. Job satisfaction and dissatisfaction will depend upon a multiple of variables rather than a single variable. These variables will be associated with job environment and socio economic background of the employee.

There seems to be no consensus about how many variables will be defining job satisfaction. It is assumed that introduction of changes can lead to satisfaction or dissatisfaction on the job. For example, organizational changes and introduction of information technology will lead to anxiety among the employee which is the variable of job satisfaction. Even though huge literature is available on job satisfaction, but job satisfaction of the librarians began appearing during late 1970's. It will be very difficult to enumerate all the variables of the job satisfaction discussed by the various experts. This study has taken into consideration the Minnesota Satisfaction Questionnaire which has enumerated twenty variables of job satisfaction (Appendix IV). Besides this one more variable on "general satisfaction" is also added for assessing the job satisfaction. This is assumed that favourable organizational climates will be conducive to job satisfaction among librarians and will influence the various leadership styles. It is rightly summed by D' Elia (1979) in his article on determinants of job satisfaction that "there is an integral relationship between a supervisory climate which is conducive to the exercise of individuals initiative and professional judgement and the librarian's experience of mastering a job. These two dimensions are, in turn, most strongly related to the degree of job satisfaction. The results tend to indicate that a participatory administrative style, perhaps even a laissez-faire style, is conducive to job satisfaction among librarians. They also suggest that an assessment of job satisfaction among

the personnel of a library would be a useful diagnostic tool for evaluating the performance of library administrators.”

1.34 User Satisfaction

Ultimate objective of the library is to provide information service to the users. The dictionary defines satisfaction as “fulfilment” or gratification” Earlier the user satisfaction was based on literal meaning that sought to identify binary state whether or not the user is satisfied. This concept has evolved to encompass the broader user’s perspectives of the library (Franklin & Nitecki, 1999). The libraries which are able to provide users with whatever they want will achieve higher levels of user satisfaction. But is it possible to provide everything the user demands as related the information? Some authors have linked user satisfaction to resources available in the library. However, it is quite impossible for any library to procure almost everything and anything on any particular subject. There are always constraints. One of the biggest constraints is the budget. There was and there will be never sufficient money available for the libraries. No library can satisfy its users all the time. Quality of resources may be judged from an overall perception whether the library can provide access to the materials (Andaleeb & Simmonds, 1998). These may or may not be available in the library. Question is how to measure the user satisfaction and what variables should be included in user satisfaction scale. There is no simple definition or one measure of satisfaction. Identifying the variables that should compose a measure of patron satisfaction appears to be a stumbling block for researchers. (Tessier, et al., 1977). Some of the variables which emerge from the literature that are related with user satisfaction are services of the

library, resources of the library. Tessier et al. (1977) further, identified following four aspects of satisfaction:

- (a) Users experience satisfaction with the output of a search.
- (b) Users will be satisfied or dissatisfied with a particular service because of their view of the library as a whole.
- (c) Aspect of satisfaction that deals with particular service that the library provides will also lead to general concept of satisfaction.
- (d) Users interaction with the staff will also contribute to user satisfaction. Studies of interpersonal communication have found that people are more satisfied if the concerned personnel are more responsive.

Other things which will make a difference in user satisfaction are the quality of the services provided, responsiveness of the library staff, and competence of the library staff and overall physical appearance of the library facilities. User satisfaction is the most commonly used for the measurement of the effectiveness of a library. User studies are an area that combines most of the literature in library and information science, yet at times it is confusing. So far no general conclusions have been arrived at as to what should be included as factors for assessing user satisfaction. *Therefore, for the purpose of this study user satisfaction is defined as the perception of the user that contributes to his or her satisfaction of the library. Overall perception will be measured on library collection, library services, library facilities and overall library satisfaction* It is further assumed that socio economic variables of the users will also influence the user satisfaction. It is also proposed user will be more satisfied with the organizations having favourable climate and people oriented leadership styles.

1.4 Conclusion

Thus, we can conclude that library effectiveness can not be studied by studying one or other variable of the library. Library effectiveness has to be understood as interconnected and interrelated multifaceted approach. The library is the trinity of three items namely staff, user and books (collection and services). Therefore in order to understand the library effectiveness all the items of the library has to be taken into consideration. This study has tried to understand library effectiveness as a multifaceted and has tried to study staff, user and other aspects of the library. The main variables deliberated for the purpose of this study are organizational climate of libraries, leadership styles of librarians, job satisfaction of librarians and user satisfaction of the library patrons.



CHAPTER 2

REVIEW OF RELATED LITERARURE

2.0 Introduction

The history of library effectiveness can be traced to 1938 when Walter C Eells wrote “Measurement of the Adequacy of a Secondary School Library: A report on one phase of the co-operative study of secondary school standards.” He found out the library having largest percentage of latest published titles is superior to one not having these titles. His main emphasis that time was measuring book collection on the basis of latest publication. However, evaluation of the performance of library and information system became a major concern only during late sixties. Even though the bibliographical control was not significant, still some authors attempted to compile the works on library effectiveness. Major works were done by Reynolds (1970) by publishing “a select bibliography on measurement in library and information services” and Ottersen (1971) “a bibliography on standards for evaluating libraries.” Morse did ground breaking work on library performance when he published “measures of library effectiveness” in 1968. He applied operational research and presented a mathematical model for evaluating the library services. Most useful measures are obtained by processing the data by means of a mathematical model chosen to represent some part of the operation. These operations can be library use, book use, dependence of circulation on time, prediction of circulation measures, effects of retiring, inactive books, and when to buy a duplicate copy. His mathematical model is based on the data gathered by various libraries on different aspects. The only drawback of this model is that it is dependent on the statistics provided by the library itself. There were other experts also who provided some kind of

mathematical model of evaluating library effectiveness. White (1977) reviewed all these quantity measures of library effectiveness and grouped them as overall measures of effectiveness, public libraries, academic libraries, Zones and Cores, Clapp-Jordan formula, current acquisition model, capability index, failure surveys, other methods of collection measurements, circulation prediction, queuing theory, circulation interference and the Markov process, attitudinal research and benefit evaluation survey. He sums up by saying “though not exhaustive, these quantity approaches are the major statistical methods proposed for library evaluation. Some give rather gross approximation of overall effectiveness while others are more refined measures of various library operations. None however can stand alone. No statistical approach can completely measure the quality of service or the value of information to the user. Further, the method of determining the actual value of the variable is often subject to debate. Even though they are useful, statistical measures leave out the human element of a library operation.” Some worth mentioning reviews on library effectiveness are by Evan et al. (1972), Strecher (1975), Du Mont and Du Mont (1979) and Goodall (1988) reviewed almost 500 articles, books and abstracts identifies that various methods employed to evaluate library performance are essentially the variations of accessibility, cost, user satisfaction, response time, cost/ benefit ratio, and use. They conclude that the techniques used are mostly mathematical and not relevant to the qualitative and quantitative factors of the library service. Strecher (1975) reviewed 20 studies on library effectiveness and categorised them into four main approaches namely user satisfaction, measure of capability, resource allocation approach and library use. While summing up, certain questions remain to be answered. For example, how valid are the results and how useful and practicable are the methods and techniques? Goodall (1988) traced the historical performance of library measurement through 1970’s and

1980's based on a total of 59 studies. Even though some studies are of importance, yet the research looks circular rather than collateral. There is often a case of old ideas being brought forward with modifications rather than improvements. She further, identified some fundamental difficulties in attempting to measure the performance of library services. These reviews were simple reviews and could not lead to general model of assessing library effectiveness. It was only Du Mont and Du Mont (1979) who while assessing and reviewing the literature on library effectiveness suggested an integrated model of library effectiveness based on system theory. According to them there is no lack of material treating the criteria of library effectiveness. However, what is required is integration of viewpoints discussing effectiveness. Library effectiveness is a measure of a number of related factors: (1) goal achievement; (2) the optimization of performance; (3) The degree of user satisfaction; (4) The use of human resources; (5) The ability to survive. They identified that there is a connection between organizational structure and library effectiveness. According to them library effectiveness has been inconsistently related to one variable or another and they suggested a model while integrating behavioural and organizational perspectives into an overall model of library effectiveness. Their model is based on system theory is based on inputs (human resources, other resources); library processes and activities and output (satisfied staff, efficient use of resources and some met demands). Van House et al. (1990) published measuring academic library performance for the Association of College and Research Libraries (ACRL). The measures they included are materials availability and use (Circulation, in-library materials use, total materials use, materials availability and request- materials delay), facilities and library uses (attendance, remote uses, total use rate, service point use and building use) and information services (reference transactions, reference satisfaction survey and online

search evaluation). Evaluative checklist based on the Standards for the college libraries developed by ACRL has eight factors. This checklist has been validated and field tested. These factors are: objectives, collections, organization of materials, staff, and delivery of service, facilities, administration and budget. According to ACRL, checklist should help in evaluating the library for improving library services.

2.1 Measuring 'Goodness' (Orr's model)

Because effectiveness is commonly defined in very general terms as the 'extent to which a system or services achieve its objectives' it has little intuitive meaning and can lead to paradoxical meanings. With this basic premise, Orr (1973) asked simple questions about the library. How good is the library and library services? And how much good does it do? He argued that goodness of library services might be called quality and how much good it does may be called the value. He further translated quality and value into effectiveness and benefit respectively. Orr postulated (1) the other things being equal, the capability of a service will tend to increase the resources devoted to its increase, but not necessarily proportionately; (2) that, the other things being equal, the total uses made of a service (Utilization) will tend to increase as its capability increase, but not necessarily proportionately; (3) that, the other things being equal, the beneficial effects realized from a service will increase as its utilisation increases, but not necessarily proportionately; (4) that, the other things being equal, the resources devoted to a service will increase as its beneficial effects increase, but not necessarily proportionately. These postulated relations were depicted by him in a diagrammatic form as cause and effect sequence looped on itself. He further discussed the direct and indirect measures of goodness of the library using closely related management techniques—cost effectiveness analysis, cost benefit analysis, system analysis, and planning-

programme-budgeting-systems (PPBS). Orr's classic model generated a lot of interest and many authors and experts followed him either writing theoretically about it or trying to conduct empirical studies. (Stecher, 1975; Buckland, 1982; Ralli, 1987; Line, 1990; Maguire and Willard, 1990; and Mackenzie, 1990). These authors tried to further explain the concept of goodness in terms of quality and value. According to Line (1990) the library that is able to meet a very high percentage of needs is very capable library and therefore one of high quality. Value on the other hand is defined as beneficial effects. He tried to distinguish between direct and indirect values or direct usefulness versus long term or wider benefits. Short term, direct and usefulness is the effectiveness and long term, wider benefits to the society are termed as benefits. Measuring benefits is very difficult proportion. Finally Line summed up the goodness of the library in the following words "it should be service oriented rather than collection oriented, but in order to achieve good service for, say, a historian there has to be an extensive collection. No collection, however "good" in itself, can constitute a good library unless more attention is paid to the user than is sometimes the case. An academic library that is not easy to use and that does not offer personal assistance as required, possibly to a high level, that does not provide efficient online services and interlibrary access services, cannot in my view to be considered a good library." Orr offered six desiderata for measures. These are appropriateness, informativeness, validity, reproducibility, comparability and practicality. Thus, we can sum up the Orr's model that the ultimate criterion for assessing the quality of a service is its capability for meeting the user needs it is intended to serve. All other things being equal an increase in resources will lead to an improved capability which in turn will improve utilisation leading to greater beneficial effects which in turn will support more resources.

So far, review of the literature suggests that most of the authors discuss one component or other that will determine the library effectiveness. No single measure can encompass a whole phenomenon known as effectiveness of libraries. Except for few experts (Du Mont & Du Mont, 1979; Van House et al., 1990; Childers and Van House, 1993; and Abbott, 1994), literature does not through light if any author has viewed library effectiveness in a holistic approach taking integrated view of all the variables of library effectiveness rather than discussing one or the other variable. Ifidon (1986) discussed that the effectiveness and evaluation of a library's performance depend on the resources, the staff, user satisfaction and the cost. But his discusses these four factors theoretically and no empirical study was conducted to find out whether these factors actually influence the library effectiveness. The above discussions make it clear that there are no single criteria to determine the effectiveness of the library. The different authors take one or two variables for evaluating the library. The different approaches of authors for assessing library effectiveness can be categorised into following broad categories:

- Acquisition models
- Book availability approach
- Library use and service approach
- Use satisfaction approach
- Library staff and performance appraisal
- System view approach
- Latest trends of measuring effectiveness of library (SERVQUAL and LibQUAL⁺)

2.2 Acquisition Models

Association of College and Research Libraries (ACRL, 1968) issued a guide to methods of library evaluation in 1968 as an aid in judging the adequacy of an academic library. These were categorised into three components based on descending order of importance. These are (1) prime evidence: books, reading spaces and professional staff (2) secondary evidence: such as budget and planning documents and (3) special activities suggesting excellence: such as student book club and publication. The details about each variable are provided as to how and what is to be included. All the three variables must be adequate for the clientele and its program and no library can be judged to be satisfactory, no matter what other activities or qualities it may offer. This guide emphasised the books and other reading material as the most important component of the library for ascertaining its effectiveness. Clapp and Jordan (1965) in their pioneering work identified the quantitative criteria for the adequacy of academic library collections. They attempted to establish the minimum core collection of library required for minimum adequacy by establishing a formula based on the size of the student body, size of the faculty, number of departments, methods of instructions, availability of suitable places for study and intellectual climate. The only drawback of this formula is that it has not been empirically tested and verified. In 1974, the Clapp and Jordan formula was revised by Association of College and Research Libraries (ACRL, 1974). This model takes into account the size of students, collection and staff into consideration for assessing the effectiveness of the library. They don't take into consideration (1) different needs of different disciplines; (2) impact of the research in any area; (3) factors like increased cost, decreased budgets, better bibliographical access and online availability of access to the information. It would seem that a model or series of models should be developed

that would permit a university or group of universities to establish minimum annual acquisition rates. The model should provide for continuing acquisition that would change in quantity over a period of years only as variables in the model suggested. Voigt (1975) developed such a model for determining the number of currently published materials an academic library should acquire each year. He identified seven variables of the model. He also suggests that many other factors in education such as student-faculty ratios, space allocations, and administrative support ratios also depend on experience, judgement and comparison with other institutions. Based on the assumption that primary mission of the academic library is to provide support for the instructional program of their parent institutions, Burr (1979) described a method of evaluating library collections which will permit the librarian to assess the adequacy of both the quantity and the quality of library resources available to support specific instructional program offered by the university. He developed a technique based on following criteria (1) it must provide both a quantity and qualitative evaluation of the library resources (2) its conclusions must be meaningful and (3) methodology must be economical without disruption of normal activities of the library. Finally, he sums up “whatever the amount or resources of the financial support available to the library, materials expenditures should accurately reflect institutional needs and priorities. Knowledge of the specific strengths and weaknesses of the library’s collections is mandatory to determined those needs and priorities accurately. This method is an effective and economical means of addressing these vital issues.” With all this discussions and having acquisition model for libraries, some authors argue if it is necessary to have written collection development policy in the libraries. Written policy can be defined as crystallization of each library’s understanding of how its collection can serve its mission. Writing the policy involves

one of the librarian's most challenging and confusing tasks of library collection. Snow (1996) argues against it by saying "The written policy represents a significant investment in its creation and maintenance. Its acceptance is by no means universal. Unless a policy is continuously updated to reflect the changes at a college or university, the document retains only its archival value. A better use of the bibliographer's time would be an evaluation of how material in the library is used, and why. He might even find time to select books, periodicals, and computer software and all other materials demanded by today's academic communities."

2.3 Book Availability Approach

After developing qualitative library collections based on needs of the users, another important factor for evaluating libraries are whether books and other materials are available for use at the appropriate time or not. Many authors have taken material availability and use as the criteria for ascertaining the library effectiveness or one of the criteria (Van House, 1990). Basic premise is that the higher the percentage of book availability better is the qualitative of the library. Book availability studies indicate generally the success or failure rates of users in locating the books in the library. Certain models were developed to assess the success or failure rate of locating the books (De Prosopo, 1973; Saracevic et al., 1977; Kantoor, 1976, 1976, 1984) Kantoor's model of 1984 was adopted by Association of Research Libraries in America. All these models have found that not more than 50% of the users can locate books in the library despite those libraries having acquired about 90% of the materials sought. Therefore it suggests that approximately 50% of the users eventually leave the library without getting a book and thus dissatisfied. Revill (1987, 1988,) reviewed the book availability as a performance measure and used Kantoor's model in his library and made

contributions of the practical experience at Liverpool. He found high level of availability. User failures were largely due to incorrect classification numbers and failure to locate oversized and reference materials. Others who used Kantor model are Ferl and Robinson (1986), Ciliberti et al. (1987), Rahid (1990) and Jacobs (1995). Since Kantor model generated a lot of interest and literature, it is of importance to discuss it here. He suggests four steps:

- (a) Has the library acquired the desired title?
- (b) If acquired, is it in circulation?
- (c) If not in circulation, is it available on the shelf?
- (d) If available on the shelf, can the user retrieve it successfully?

He used branching technique; the proportions of searches that overcome each of these obstacles represent the probability of success for a category. Ciliberti et al. (1986) made modification on expansion of the steps or branches involved in know item searches and the addition of a parallel series of branches involved in the successful completion of subject searches. Rashid (1990) added three more factors to the initial four factors. These are user bibliographic information, collection development policy, and acquisition policy, user performance at the card catalogue, circulation procedure, library operations / functioning and the user search at the shelf. Further, Rashid identified the status of untraced book titles with one of the following factors; (1) The author /title information as written by the library user and brought to the card catalogue was incomplete or was not correct (2) book titles written by the user was not owned by the library (3) the call number of the book sought might not be recorded correctly (4) the book was located in a special area as identified in the card catalogue (5) the book was properly shelved but could not be found by the user because of an oversight (6) the book was misshelved (7) the book was currently in circulation or in use in the library

(8) the book was kept in the preshelving area (9) the book was located in the area not identified in the card catalogue (10) the book was checked out (11) the book was missing (12) the book was not purchased due to the restrictions of the collection development policy and (13) others. However, this evaluation method although providing useful information, is expensive and disruptive to be considered for the regular use in a busy library. But at the same time wealth of data collected enables the library managers to gain insight into the collections (Jacobs, 1995). He further in another paper compared the figures from a questionnaire-based book availability survey technique and from computer records of the use of the library's computer catalogue. Although several important differences emerge between the two sets of data, it is concluded that within specific limits the computer monitoring techniques could act as a surrogate for book availability surveys. Metz and Litchfield (1988) tried to measure collection use by bringing together circulation and in-house use along with that of current periodicals by assessing the differences according to kind of use, variations in measurement techniques and time period.

While all the above approaches try to assess success rates, certain authors suggest measuring "failure rates." Major work in this regard is done by Schofield (1971), Seymour and Schofield (1973) and Schofield et al. (1975). Library users were asked to fill out one of the two "failure slips". One failure slip dealt with searches for known items, other with searches by subjects. The authors then searched the items again to determine the proportions of failure caused by:

- (1) Items not owned by the library
- (2) Items owned but not available
- (3) Items available but not found by the user (Reader failure)

It was found by the authors that 37 % of the user do not find desired item. The authors suggest that failures surveys should be used for determining the need for multiple copies in the library. Thus, through availability/ failure studies, a wealth of information are generated which may shed light on potential improvements in the library services.

2. 4 Library Use and Service Approach

The ultimate goal or the objective of any library is to provide library services in terms of supplying information as desired by the patrons. This objective can be achieved by both traditional method or with application of latest information technologies. Evaluation of library services will determine the effectiveness and efficiency of the library and will further identify limitations and failures of services. Library use and book collection were taken as the factors of evaluating library as early as 1940s besides personnel, budget etc. (Carnovsky, 1959). Among the services, reference services get the maximum attention. Rothstein (1964) reports a large number of studies discussing the measurement and evaluation of reference service. The measurement and evaluation of reference service has been more often discussed than attempted. Much of the literature is repetitive, faltering and inconclusive. The other difficulties faced in measuring various services are that they are ill defined as compared to circulation, acquisition, and cataloguing and with little agreement on its components parts. It is further argued that problem of evaluating reference service in all dimensions has not really been attempted at all. The problem can be summarised in his own words "In all types of libraries and in all aspects of reference service, investigation has seldom gone beyond the first stage of measurement-description in quantitative terms-to the ultimate goal of full-fledged evaluation-rating or assessment of effectiveness and worth." Elzy et al. (1991) also evaluating reference service with the following objectives: (1) to estimate the probability that a user,

walking into the library with a factual question, would receive or be led to a complete and correct answer (2) to identify conditions under which members of the reference staff perform well and conditions under which they perform poorly (3) to determine to what extent student users of the library judge staff members to be responsive and helpful and (4) to identify ways in which the service might be improved. Seay et al. (1996) measured the quality of public library services with a view to improve it by using questionnaire method by analysing patron perceptions about library services. This model presents a method for quantifying and categorising patrons' comments from a standard questionnaire in such a way that the results are organised into seven principal service determinants. These service determinants are reliability, responsiveness, assurance, access, communications, security and tangibles. Twelve types of surveys were used to measure and evaluate users, services and materials and conducted during 1968/1969 at Columbia University Libraries and later evaluated (Mount and Fasana, 1972).

There have been several attempts to devise certain models of evaluating library use and services. Worth mentioning is EQLIPSE (Evaluation and Quality in Library Performance System for Europe). EQLIPSE started as project, is an attempt towards an inclusive methodology for the measurement of inhouse use (Wynne and Clarke, 2000). The overall objective of EQLIPSE was to specify, develop and validate an open IT-based system to support quality management and performance measurement in libraries of all types. A comprehensive list of performance indicators, gathered from a number of existing works, was considered but it proved impossible to produce a definitive list of indicators for all the libraries.

2.5 User Satisfaction Approach

User studies are one of the most researched areas in library and information science. These studies form a large body of literature in the discipline. Since user studies first started in the late 1940s, their number has constantly increased. In the nineties the implementation of conceptual theories, that flourished during 1980s, grew stronger as an increasing number of researchers acknowledged the value of these theoretical frameworks and incorporated them into their research design along with more sophisticated qualitative research methods. The nineties also witness the tremendous growth and establishment of the internet as an information provider in the information community. As a result a number of studies set out to investigate a plethora of issues concerning the impact of internet on the user and the information community (Siatry, 1999). One of the important components of user studies is user satisfaction of the library services. Initially user satisfaction studies started with the literal meaning of explaining the user satisfaction in terms of user fulfilment and later on pursued the study of customer satisfaction in terms of describing customer experiences. Many reviews of user studies have been written (Menzel, 1964; Paisley, 1969; Wilson, 1981; D'Elia and Walsh, 1983; Siatry, 1999). The literature of user satisfaction is at times confusing. The construct has not been developed and tested in a systematic manner. Rather, it seems simply to have been accepted and used as a reasonable measure of library performance. Definitions differ; methods of measurements differ; reasons for using the construct differ. Terminology is ambiguous and sometimes contradictory (D'Elia and Walsh, 1983). They also identified two main approaches to user studies namely subjective and objective. In the objective approach, library is the unit of analysis and the proportions of the items supplied by the library on

demand is the measurement of satisfaction. It is based on the assumptions that users of libraries experience satisfaction of their demands commensurate with the levels of library performance. While in the subjective approach, the user is the unit of analysis and the user's opinion of how well the library has performed in satisfying the demands is the measurement of satisfaction. It is assumed that user evaluations are valid indicators of library performance. It is very evident that user satisfaction of library service has direct relations with the efficiency of library staff. Andaleeb and Simmonds (1998) identified that library user, especially students, accord significant importance to the demeanor of the library staff. They further suggested that it is a multiattribute construct that must be instilled and inculcated, much like an attitude, among the library staff. Although instilling the qualities of demeanor among the service providers and gaining their commitment to these qualities can be challenging. The other important variable for the user satisfaction is the resources and their management in the libraries. Therefore, we can say that library environment involves three interrelated elements: user expectation, library performance and user satisfaction. What is central to all this is user? User's degree of satisfaction with a service will evolve as the user develops a relationship with service provider (Millson-Martula and Menon, 1995; Calvert, 2001). Brember (1985 and 1985) applied soft system methodology linking user survey to the practical problems of library management. The outcome of the study was an indication of the content of a useful model of the users and guidelines for deriving criteria for effectiveness based on the model. Applications of information technologies in the library and the internet has also put lot of pressure on the library services and ultimately on higher levels of user satisfaction. When the user determines satisfaction with computer-based retrieval situations, he focuses on four distinct aspects: users experience satisfaction with the output of the

research, Users will be satisfied or dissatisfied with a particular service because of their view of the library; User satisfaction or the dissatisfaction may result from the way the service is provided and user interaction with the staff will affect user satisfaction (Tessier et al., 1977). Further, authors believed in three assumptions for the users satisfaction. These are: (1) The users state of satisfaction is experienced within the frame of his own requirements; (2) expectations may affect how a user approaches the service, what he requires of it, how he interacts with it, and his assessment of its adequacy. In other words we can say that user's state of satisfaction is experienced within the framework of his expectations; (3) just as expectations may affect satisfaction, other considerations such as costs in energy, time or money may work to compromise the users definition of satisfaction. In other words users may seek a solution within acceptable range instead of an ideal or perfect solution. The authors conclude by saying that "we need to measure all the different aspects of user satisfaction and we need to use all available methods to measure user satisfaction. Only then, we can accurately adjust the conditions surrounding computer-based literature services to increase user satisfaction." Since the objective methodologies are yet to develop and involve, it the subjective methodologies that we will have to depend upon. In other words, we will have to study user to identify his satisfaction levels and thus, improve upon the effectiveness of the libraries.

2.6 Library Staff and Performance Appraisal

The one of the important component of the library is library staff. In an effective academic library the professional staff can be the most valuable resource- the more important than any other one component: books, card catalogue, documents etc (Berkner, 1979). Every organization is a social system, a network of interpersonal relationships. A man may do an excellent job by objective standards of measurement, but may fail miserably as a partner, subordinate, superior or colleague. Any library evaluation has to take into consideration its staff as the important resource of the library. Therefore, assessment of library staffs' contribution and ability in carrying forward its goals and objectives becomes a necessity for any model of evaluation. DeProspero (1971) identified discussions by the individuals and the supervisor on job content, setting of performance targets by the employee, review of these with the supervisor as the evaluative checkpoint for the performance appraisal. Besides this interpersonal relations are also important for assessing the performance appraisal. "How does one cope with the colleague in the selection department who refuses to buy interdisciplinary material out of his /her departmental book budget, thus keeping carefully with in set financial limits, building specialised collection and ignoring cross disciplinary approach?" this question is asked by Berkner and he argues that straight management by objective approach is unlikely to solve the problem. According to him, managerial abilities of the librarians should include the ability to supervise and organizational and leadership qualities. Organizational and leadership qualities should enable the librarians to able to make decisions, willing to compromise, be self motivated and self controlled, be able to organise , plan, and communicate the effective use of resources, maintain good relationship with others, that

expect that one will keep on growing, improve one's performance and continue to develop. Therefore, assessing the organizational climate, leadership styles and job satisfaction of the librarians becomes the essential component for assessing the overall effectiveness of any library. Librarians' effectiveness will depend on the employee, the job, the supervisor and the work environment and should not be limited to just the employee (Johnson, 1972). Performance appraisals also help in effectively managing the staff, which ultimately leads to an effective library. They assist in various aspects and these aspects are: (Hodge, 1983 and Berkner, 1979).

- To assist in personal planning
- To guide in job development
- To make basis for recommendations for promotions salary increase or terminations
- To serve as basis for modifying or changing the behaviour
- To provide performance feedback to employees
- To develop an inventory of human resources for the use of management- a record of available talent and potential among the staff
- To provide a method of counselling and encouraging staff members to grow and to plan for future development.
- To give the employee a chance to "know where he or she stands" in the supervisor's estimation
- To elicit feedback from the employee

2.7 System View Approach

System theory approach conceptualises the library as a whole for assessing its effectiveness. It provides a useful way to find out what library is supposed to do, what it does and how it achieves its objectives. The basic model has three components namely input, output and outcomes. Inputs in the library are resources like staff, materials and capital

funding, Outputs are direct product of a library's operations or the activities it carries out and outcomes are the uses made by the consumer of a given output and the degree of satisfaction felt with those outputs. The experts who worked on these lines are Du Mont and Du Mont (1979), Childers and Van House (1993), Van House et al. (1990) and Abbott (1994). Although a library is essentially a social institution steeped in human values of all kinds, it can be viewed as a complex communication system charged with the task of transferring information through space and time and such; it is particularly amenable to engineering analysis. Mathematical models thud derives are certain to provide a much better basis for the design and operations of library system (Leimkuhler, 1966) He developed models based on system analysis for acquisition, circulation, storage, loan period, duplication policies, availability and obsolescence. The development was divided into three parts: The first growth model involves a time series analysis of acquisitions, holdings, and circulations. The second part storage model considers several aspects of book storage in a manner that is analogous to modern inventory theory an the three part is availability models that teat the library as a stochastic service system and applies some elementary queuing models to determine the availability and circulation of single and duplicate copies. Some libraries only recently have been able to move from inputs and outputs into some systematic evaluation of quality of services across institutions at a macro level. Du Mont and Du Mont (1979) suggests synthesised system model for evaluating library effectiveness based on four perspectives. These perspectives are (1) individual library employees and their expectations of the library (2) library itself and its expectations of the environment (3) individual library patron and his /her expectation of the library and (4) society at large and its expectations of the library. The model suggests the study of inputs, library processes/ activities and outcomes. Almost similar

model was suggested by Van House et al. (1990) when they prepared a practical approach document for measuring academic libraries performance for the ACRL. This publication discusses the library as general system model (inputs, processes, outputs and outcomes and feedback library's impact on community as environmental factor). The document describes in details what to be included or not included under each category and how to measure them practically. Later on Van House along with Childers (Childers and Van House, 1993) described the evaluative method for assessing the public libraries based on the eight dimensions of library effectiveness. AMPLE (Model of Public Library Effectiveness) described by them shows how practically a public library can be assessed for effectiveness. Buckland (1982) 'book is a searching application of system theory to library operations and he uncovers the 'double feedback loop' or 'two feedback mechanisms substantially independent of each other in important ways' whereby user feedback loops which determine demand in libraries are separated from the supply feedback loops which controls the provision of library services" this is based on his premise that library service's ability to control the use made of it is largely separate from its dealing with the sponsor. Kyriallidou (2002) discusses library model and user roles in relation to the transformative effects of technology. It explores how these models are changing our conceptualisation of library assessment models from a linear to a more cyclical and dynamic perspective shaping relations among input, output, quality and outcome indicators. He argues that defining outcome of the library is a big problem and the relation between the quality of electronic library services and outcomes is yet another challenging issue where more research is needed and so far evaluation has not been the integral part of the development cycle embedded in the operation of the library.

2.8 Latest Trends

The experts started using and experimenting evaluating techniques of other discipline in libraries during late 1990s'. These techniques re borrowed from management, operational research, economics, commerce and other related subjects. One of the important tool used is "benchmarking" The benchmarking is measurements against standards, against one's own prior progress, or against wherever a peer or competitor happens to be. Benchmarking is production oriented way of talking about statistics. Statistics include more sophisticated analyses than those in a typical compilation of what we call library statistics, most of which are just data elements, singly or in ratios- in a word benchmark (Prichard, 1995). In other words we cans say that benchmarking means collecting statistical data and analyzing it using various statistical techniques. There are various methods of bench marking and is basically derived from total quality management (TQM) and based on following general principles (Garrod & Kinnell, 1996):

- A structured or systematic approach to finding improvements and implementing best practice;
- A continuous process of measuring products, services and practice against leaders;
- A focus on processes (individual process which are deemed visit to customer satisfaction are suitable choices for benchmarking programmes);
- An emphasis on learning. Benchmarking should not be regarded simply as a comparative exercise or be totally results oriented.

The empirical studies conduced for measuring performance of the libraries using benchmarking are Creaser (2001) and Garrod & Kinnell (1996). Garrod & Kinnell used benchmarking in UK library and information sector whereas Creaser used the technique for school library services. Interest is growing and few organizations are acting as pathfinders, by

testing and evaluating the techniques involved. However, it is too early to assess how successful this method has been and it needs further empirical testing to arrive a general conclusion. Rowena et al. (1995) studied the stake holder perceptions of university library effectiveness by studying their organizational effectiveness. This research is based on the 'multiple constituencies' model, identified key performance indicators in university libraries as perceived by six libraries as perceived by six separate stakeholder groups. Their main finding was that stake holder groups have different perspective on library effectiveness and knowledge of the expectations of each group provides better information on which to make and justify a shift of resources from one service area to another. Crawford et al. (1998) applied the stakeholder method to the design of a set of user chosen performance measures to assist the British academic libraries in improving customer service. The study involved 15 institutions and 10 stakeholder groups, consisting pf 91 performance measures organised in four categories: assistance from library staff; provision of study space and equipment; access to materials and equipments and management and administration. They further identified similarities and differences within groups and compared the results with the study by Rowena et al.

In the early 1980s', the impetus to measure and evaluate service quality arose from the marketing discipline. The recognised leaders in this endeavour were Parasuraman et al. (1988, 1991). Their research leads to SERVQUAL instrument for assessing the customer perception of the quality of the service empirically. They postulated that quality could be viewed as the gap between perceived service and expected service and their theory eventually resulted in the gap theory of service quality. The model summarises the five following gaps:

- Customers' expectations and management's perceptions of these expectations.

- Management's perceptions of customers' expectations and service quality specifications.
- Service quality specifications and actual service delivery
- Actual service delivery and what is communicated to customers about it and
- Customers' expected services and perceived service delivered.

The SERVQUAL has 22 items that are factorised into following five factors (Parasuraman et al., 1988 and 1991):

- Tangibles (appearance of physical facilities, equipment, personnel and communication materials)
- Reliability (ability to perform the promised service dependably and accurately)
- Responsiveness (willingness help to customers and provide promote service)
- Assurance (knowledge and courtesy of employees and their ability to convey trust and confidence) and
- Empathy (the caring, individualized attention the firm provides its customers)

Library researcher recognised the potential of SERVQUAL to serve as tool for assessing the quality of library services as provided to the patrons. Association of Research Libraries (Cook, 2002) sponsored a pilot administration of the SERVQUAL instrument in 12 of its member institutions. Cook and Thompson (2000) explored reliability and validity of scores from SERVQUAL measurement protocol for evaluating the perception of library service quality. Nitecki and Herson (2000) also tested the SERVQUAL for measuring service quality at Yale university libraries and Coleman et al. (1997) conducted a survey to measure service quality based on the same method. It is too early to say whether SERVQUAL can answer how to assess the effectiveness of the libraries even though it seems to be the best tool available

because libraries are also service-oriented organizations. It needs further evaluation and empirical studies in library setting before any conclusions can be drawn.

The various empirical studies were conducted using SERVQUAL in academic libraries and these studies failed to recover five factors, instead only three factors were consistently recovered. These are tangibles, reliability and affect of service. ARL who sponsored the research on SERVQUAL tried to answer the question, what other factors, if any should be incorporated into the assessment of service quality in a research library? Answer to this question gave rise to LibQUAL⁺ to assess the service quality in a research library. LibQUAL⁺ is based on the same assumption as SERVQUAL that “only customers judge quality; all other judgements are relatively irrelevant.” The investigators (Cook and Thompson, 2001; Cook and Heath, 2001) after conducted surveys with faculty, students and others, added 19 item to 22 items of SERVQUAL to measure the additional factors. These 41 items clustered into following five factors namely (1) Affect of Service (2) Reliability (3) Library as Place (4) Provision of Physical Collection (5) Access to information. It was found that library users simultaneously think about library quality at multiple levels. Based on these promising results, a series of articles reporting the research reports about LibQUAL⁺ were published by ARL (ARL, 2001). LibQUAL⁺ tries to identify those dimensions and measure the gap between expected service and perceived service in each dimension. The empirical studies are continuing for the validity and reliability of LibQUAL⁺ as a tool to measure the quality of library services. Cook (2001) identified more dimensions or factors that are relevant to libraries and which are not in the original SERVQUAL from where it originates. Cook sums up in these words “while the dimensions of service quality established by Parasuraman, Zeithamal, and Berry remerged from the analysis in the library context, three others, perhaps

unique to research library context, were compelling: Ubiquity and ease of access to collection, the library as place, subsuming dual concepts of utilitarian space and of the library as a symbol of the intellect and finally, the overwhelming drive on the part of users to be self-reliant and confident in navigating the information world. Whether self-reliance is a component of library service quality or a result of service quality is unclear and will be investigated in future research. Ubiquity and ease of access, library as a place and self-reliance emerged from the interviews with users as inescapable elements of the construct of quality library service. As such, these dimensions will be explored in further LibQUAL⁺ evaluation studies in an iterative of building and testing theory of library service quality.” Therefore, we can conclude that LibQUAL⁺ hold promise in assessing service quality in the research library environment. But a lot of research needs to be conducted using LibQUAL⁺ using different library environments before a generalised tool can emerge which can be used in any library setting. The other drawback of the LibQUAL⁺ is that it assesses only the quality of service and can be taken as a holistic indicator for library effectiveness.

2.9 Discussions and Conclusion

The review of related literature shows that there is no consensus among the various authors as to what should be included in assessing the library effectiveness. Various authors describe different variables for ascertaining library effectiveness. The various approaches can be summarised as follows:

- Measurement of “Goodness” of the library. Here the authors argue that goodness of the library should be measured and goodness is translated into value and benefits of the library, which will ultimately measure library effectiveness.

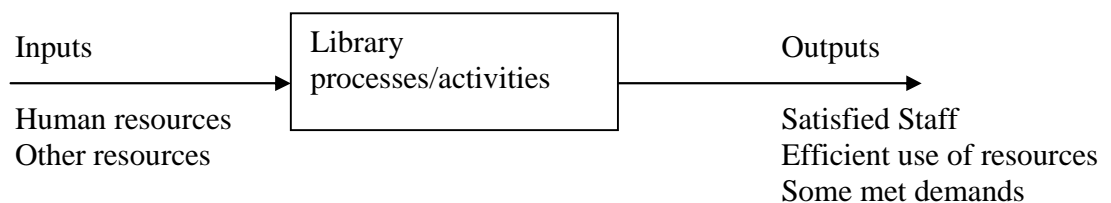
- Measuring materials availability as an indicator of library effectiveness. The experts expressed the library performance can be evaluated in terms of what the library is acquiring and quality of collection development. Availability of the documents on the shelf when the users desire it is also taken as the indicator of library effectiveness. Various model of acquisition and availability for assessing library effectiveness came into existence
- The other group of authors took users point of view for assessment of library effectiveness. The library use, type of services provided to the users and the user satisfaction of these services are the criteria for evaluations of library. It is worth mentioning here that majority of authors take the view that it is ultimately user satisfaction and the quality of service that will indicate the effectiveness of the libraries.
- The various authors see library effectiveness from the perspective of library staff. Leadership styles, job satisfaction and performance appraisals are some of the criteria's taken which will identify whether the library is effective or not.
- Various experts viewed library from the system point of view and described all the components of the library in terms of inputs, outputs, processes and the outcomes. This view differs from others point of views in the sense that experts take a holistic view of evaluating the library effectiveness by evaluating the system as whole and not one component or the other.
- Certain authors tried to apply various methodologies and models developed elsewhere in social science in libraries for assessing effectiveness. Worth mentioning is the SERVQUAL which was developed as a tool for discipline for assessment of quality of service. The application of SERVQUAL lead to a mew modified tool LibQUAL⁺ to ascertain the quality of library service.

Goodall (1988), in his review on performance measurement sums up “It would be wrong to suggest that no real progress has been made in the field of performance measurement but one cannot help feeling that the research has been of a circular nature that although plenty has been written on the subject there is a surprising lack of originality in the writings. The research appears to be collateral rather than cumulative; it is too often the case that old ideas are regurgitated with modifications rather than improvements. However one must not be too critical as there are several fundamental difficulties in attempting to measure the performance of library service.” But he concludes that libraries must be evaluated in terms of the service they provide to the users. It is very clear that systems view is the only approach that takes all the components of the library into consideration for its evaluations. Even though there are various authors who have taken system view approach of the library (Du Mont and Du Mont 1979; Van House et al., 1990; Childers and Van House, 1993 Abbott 1994), but Du Mont and Du Mont who after summarising the various approaches presented an integrated model of library effectiveness. They integrated behavioural and organizational perspectives in an overall model of library effectiveness. Their model is based on following assumptions:

- (1) The employee’s expectation of the library: The behavioural study of organizations make it clear that certain organizational structures and or styles of management are more conducive to fulfilling these needs than others.
- (2) The library’s expectations of the environment: The library’s flexibility and the ability to learn and perform according to changing contingencies in the environment.
- (3) Individual patron’s expectations of the library: Achieving effectiveness is actually identifying and defining what information needs and demands and fulfilling these needs and demands is the ultimate goal.

- (4) The environment's (Society's) expectation of the library: Societal groups have expectations of what the library can offer them. It is expected that library should perform efficiently. The quality of these benefits is an intermediate concern, which leads to long-term satisfaction with library service.

These perspectives are combined to make a system model of library effectiveness, which is shown as follows:



Although the integrated approach to judging library effectiveness introduces more complexity into designing systems for assessing the effective library, it also seems to offer the precision necessary if we are to measure the effectiveness of what they do. Therefore, it is concluded that library effectiveness can not be evaluated on a single criteria and there is a need to assess multiple variable simultaneously to actually know whether library is effective or not. The present study is based on the model of Du Mont and Du Mont model has tried to study the library effectiveness as an integrated approach of three basic components of the library namely library staff, library users and the library itself. In the light of above discussion, following variables are taken into consideration for the study of library effectiveness:

- (1) Organizational Structure;
- (2) Leadership Styles of Library Professionals;
- (3) Job Satisfaction of Library Professionals;
- (4) User Satisfaction of the Patrons;

(5) The Library itself.

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CHAPTER 3

METHODOLOGY

3.0 Introduction

The literature review in the previous chapter has shown that different authors have taken one or more criterion to define library effectiveness. There has been no holistic approach to identify library effectiveness till late 1970s. It is Du Mont and Du Mont in 1979, while reviewing all the literature and approaches on library effectiveness suggested a holistic synthesized approach to library effectiveness. The authors conclude by saying that library effectiveness is a number of related factors: goal achievement as measure by contributions to its patrons, the optimization of performance, the degree of user's satisfaction, the use of human resources and the ability of providing service to patrons.

Therefore, it is concluded that instead of taking a single criterion to measure library effectiveness, integrated and synthesized view of various criteria will be able to measure the overall library effectiveness. The following variables are considered for the present study:

- (a) **The relationship between the pursuit of organizational goals and the required tasks of individuals:** Leadership behaviour styles, job satisfaction and organizational climate are considered to maximize the effectiveness of library professional.
- (b) **Library's interaction with user:** User satisfaction is taken as important variable for library effectiveness.

- (c) **Library inputs:** The level of library inputs in terms of budget, physical facilities, services and information technology inputs are taken as a measure of library effectiveness.

Further, literature review clearly indicates that there is very less emphasis on conducting research on library effectiveness. So far, not a single empirical study has been conducted to study the effectiveness of libraries in Bangladesh and not even in sub-continent. The purpose of this study is to measure effectiveness of university libraries in Bangladesh.

3.1 Objectives of the Study

The main objective of the present study is to measure effectiveness of university libraries. The sub-objectives arising out of it are:

1. To identifying the leadership behavioural styles of library professional.
2. To measure the levels of job satisfaction of library professional.
3. How does the background variable affect leadership behavioural styles and job satisfaction of library professional?
4. To determine the organizational structure of various libraries.
[The organizational structure and processes are determinates of climate which in turn determines organizational effectiveness by Khandwalla (1988)]
5. To measure the outputs in terms of user's satisfaction.
6. To measure the level of library inputs in terms of other resources namely, budget, physical facilities, services, and information technology inputs.

3.2 Hypotheses

The present study takes into account synthesized model of library effectiveness. Various variables of library effectiveness are taken into consideration simultaneously to achieve a holistic view of library effectiveness. These variables are having behavioural and organizational perspectives. The underlying assumptions are that library effectiveness is influenced by the behaviour of the library professional. The behaviour of library professional is measured in terms of leadership behaviour styles and job satisfaction. Certain organizational variables also have their effects on library effectiveness. Keeping in view the above assumptions, following hypotheses will be tested:

Hypothesis # H₁: The favourable the organizational climate is, the more people oriented leadership styles the leader is having whereas, the less favourable the organizational climate is, and the authoritarian style the leader is having.

Hypothesis # H₂: The favourable the organizational climate is, greater is the satisfaction of the library professional on the job whereas, the less favourable the organizational climate is, greater is the dissatisfaction of the library professional on the job.

Hypothesis # H₃ : Age, qualifications, designations, tenure in present position, tenure in present organization, number of promotions and number of other organizations worked will not determine and influence the choice of a particular leadership style.

Hypothesis # H₄: There is no significant difference between job satisfaction and background variables namely age, qualifications, designations, tenure in present position, tenure in present organization, number of promotions and number of other organizations worked.

Hypothesis # H₅: Age, discipline, academic status, importance of the library and average library use in the university will not determine the satisfaction levels of library users.

Hypothesis # H₆: The favourable the organizational climate is in the library, greater is the satisfaction levels of library users whereas, the less the favourable the organizational climate is in the library, greater is the dissatisfaction of the library users.

3.3 The Research Site

The universities in Bangladesh are categorized into public and private universities. The public universities are autonomous and funded by Government of Bangladesh whereas private universities are funded by non-governmental organizations. However, private universities are approved by University Grants Commission of Bangladesh. There are total of 40 universities (Public 17, Private 23) in Bangladesh (UGC, 2001). Out of which, 23 universities (Public 8 and Private 15) are situated in the Dhaka. Since, majority (54%) of the universities are situated in Dhaka, following four university libraries, two from each category were chosen for the purpose of study:

Public Universities

- (i) University of Dhaka (DU)
- (ii) Bangladesh University of Engineering and Technology (BUET)

Private Universities

- (i) North-South University (NSU)
- (ii) Independent University of Bangladesh (IUB)

3.3.1 Public Universities

Out of total 17 public universities so far, 8 are situated in Dhaka. The University of Dhaka is the oldest and largest university in Bangladesh and established in 1921. It is a very well established university with 57 departments and institutions. The university of Dhaka library is also oldest library, having total collection of 5, 96,436 lakhs catering to 22,561 students (UGC, 2001). It has a total of 181 staff; out of 65 are library professional. Bangladesh University of Engineering Technology is specializing in engineering and

technology. It was established in 1962. It is the only university of its kind in Bangladesh. The university library is having total collection of 1, 31,540 lakhs and total staff working in the library is 42, out of which 21 are library professional. Student strength is 7,278 and 485 faculty member (UGC, 2001).

3.3.2 Private Universities

The Government of Bangladesh started approving private universities under the private university act of 1992 through the accreditation of University Grants Commission of Bangladesh. Out of total 23 private universities so far, 20 are situated in Dhaka. The oldest among them is North-South University established in 1992 and Independent University of Bangladesh is established in 1994 (UGC, 2001). These universities are supposed to be providing better and modern higher education. Fees structure of these universities is very high in comparison between public universities. Libraries of both universities even though small, are equipped with latest technology and automated. The collections in these libraries are need based. The library professional are qualified and provide need based modern library services to the patrons.

3.4 The Sample

The population of the study includes library professional working in four university libraries and library users. All library professional of four universities is included in the sample. However, a random sample of 200 users each from four universities is drawn for user sample. The following table shows the details of the four universities:

Table no. 3.1 Data Summary Regarding Sample

Sl. NO.	University	Category	Year of Est.	Library Professional	F	%	Questionnaires Distributed to Users	F	%
1	University of Dhaka	Public	1921	65	48	73.85	200	143	71.5
2	Bangladesh University of Engineering Technology	Public	1962	21	18	85.71	200	125	62.5
3	North-South University	Private	1992	7	5	71.43	200	130	65
4	Independent University of Bangladesh	Private	1994	8	7	87.5	200	139	69.5
Total		04	-	101	78	77.23	800	537	67.13

3.5 The Assessment Method

Primary data was collected using questionnaire methods. Questionnaire booklet were prepared “Questionnaire Booklet-1” (Appendix-I) and “Questionnaire Booklet-2” (Appendix-II) was used for library professional and for assessing user satisfaction respectively while as “Questionnaire Booklet-3” (Appendix-III) was meant for collecting the existing data from four university libraries. Primary data is collected using Questionnaire 1 & Questionnaire 2 and Questionnaire 3 is used for collecting data through secondary sources of information.

3.5.1 Questionnaire Booklet-1

A questionnaire “Questionnaire Booklet-1” based on standard scales and studies available in the current literature was prepared for assessing leadership behaviour styles, job satisfaction, organizational climate and background information of library professional. A total 192 items were divided into four sections. A summary is given in table:

Table no. 3.2 Survey Questionnaire Employed in the Study

Sections	Measures	Items	Cumulative Items	Scales
1	Leadership Behaviour Styles (LBS)	50	50	5 Point Likert Type
2	Minnesota Satisfaction Questionnaire (MSQ)	100	150	5 Point Likert Type
3	Organizational Climate (OC)	30	180	5 Point Likert Type
4	Background Variables (BV)	12	192	**

Note: ** Scale varies from single items measure to 9 items.

1. Leadership Behaviour Styles (LBS)

Draw from the recent works of Sinha (1980), Hassan (1986), Ansari (1986) and tested on Indian library professional by Saraf (1995). 50 single statement items each were used to measure the leadership behaviour styles of superior. The items were evenly distributed to five dimensions of predefined leadership styles, namely, authoritative (F), participative (P), nurturant (N), task oriented (T), bureaucratic (B). Each item has Likert type 5 point scale with the option as, 5 = quite true, 4 = true, 3 = doubtful, 2 = false, 1 = quite false.

2. Minnesota Satisfaction Questionnaire (MSQ)

Minnesota Satisfaction Questionnaire (MSQ) was used for assessing job satisfaction of library professional. MSQ has short-form and long-form. For the purpose of this study, long form of MSQ was used (MSQ, 1967). It consists of 100 items distributed evenly on 20 variables of job satisfaction identified by the scale. Five response alternatives are presented for each item. These are: 5 = extremely satisfied, 4 = very satisfied, 3 = satisfied, 2 = less satisfied, 1 = not satisfied. Besides these 20 variables, 'general satisfaction' variable is also included. This variable consists of 20 items, one from each 20 variables of MSQ.

3. Organizational Climate (OC)

Although several scales and methods for measuring organizational climate are available from various literature, the questionnaire model developed by Litwin and Stringer (1968) and later modified by Schnake (1983) is employed to study the perceptions of organizational climate. This model put into tested by Ansari (1990) and Saraf (1995) in different Indian environment. The measure consist of 30 different statements with 5 point Likert type scale, especially 5 = to a very great extent, 4 = to a great extent, 3 = to some extent, 2 = to a small extent and 1 = almost to no extent.

4. Background Variables

In order to find out the relationship between leadership behaviour styles and job satisfaction of library professional with their socio-economic variables, 9 total of 12 questions with varying scale ranging from 1 to 9 were prepared and administered to library professional. These are present age, joining age, sex, marital status, designation, academic qualifications, professional qualifications, number of subordinates, number of years working in the present organization, number of years working in the present position, number of promotion received, number of organization worked in career.

3.5.2 Questionnaire Booklet- 2

A questionnaire “Questionnaire booklet-2” based on a modified version of “University of Washington Faculty and Students Library Use Survey 2001” (University of Washington, 2001) was used for assign user’s satisfaction of four libraries. “The University of Connecticut Libraries Faculty Survey 1997” (University of Connecticut, 1997) and “Lingnan University Library User Satisfaction Survey 2001” (Lingnan University, 2001) was also used for the same purpose. These questionnaire were available online and downloaded. A total 119 items

were grouped into 12 broad categories. Each items except items no. 3 and 7 were on 5 point Likert type scale. The details are shown in table:

Table no. 3.3 Survey Questionnaire Employed in the Study

Sl. no.	Variables	Items	Cumulative Items	Scales
1	Background variables	7	7	**
2	Purpose of Visiting library	9	16	5=more often, 4=weekly, 3= monthly, 2=quarterly, 1=less often.
3	Importance of sources of information	6	22	5=extremely important, 4=very important, 3=important, 5=less important, 5=not important.
4	Importance of library collections	13	35	5=extremely important, 4=very important, 3=important, 5=less important, 5=not important.
5	Satisfaction of library collections	13	48	5=extremely satisfied, 4=very satisfied, 3= satisfied, 5=less satisfied, 5=not satisfied.
6	Satisfaction of library services	13	61	5=extremely satisfied, 4=very satisfied, 3= satisfied, 5=less satisfied, 5=not satisfied.
7	Importance of library facilities	12	73	5=extremely important, 4=very important, 3=important, 5=less important, 5=not important.
8	Satisfaction of library facilities	12	85	5=extremely satisfied, 4=very satisfied, 3= satisfied, 5=less satisfied, 5=not satisfied.
9	Use of information technology	8	93	5=extremely likely, 4=very likely, 3= likely, 5=less likely, 5=not likely.
10	Opening period of library	11	104	5=always, 4=frequently, 3= sometime, 5=rarely, 5=never.
11	Top priorities of the library	12	116	5=extremely important, 4=very important, 3=important, 5=less important, 5=not important.
12	Overall satisfaction of library services	3	119	5=extremely satisfied, 4=very satisfied, 3= satisfied, 5=less satisfied, 5=not satisfied.

Note: Scale ranges 1-5 depending on the items.

The user satisfaction scale can be broadly categorized into six different groups. These are:

- (i) Background variables
- (ii) Visit to the library
- (iii) Library collections
- (iv) Library services
- (v) Library facilities
- (vi) Overall library satisfaction

As indicated from the above table no. 3.3, it is clear that the background variables are 7 and assessing the library on overall library performance has 3 variables. Rests of 109 variables are distributed for assessing library collection, services and facilities.

3.5.3 Questionnaire Booklet-3

A third questionnaire “Questionnaire booklet-3” was prepared to identify the existing status of four libraries. This questionnaire was personally administered to librarians or in-charge of the four universities libraries identified for the purpose of this study. The researcher spent about two hours each with each respondent in explaining and helping them in giving appropriate and correct information. The information in the questionnaire was collected under following and broad categories. These are:

- (i) Budget of university libraries during the last three years
- (ii) Library collections during the last three years
- (iii) Library services and facilities provided to the users
- (iv) Total number of library professional and library users

3.6 The Statistical Method

The following statistical techniques were employed:

- (i) Factor Analysis with Varimax Rotation
- (ii) Inter-Correlation among the Inferred Variables and
- (iii) Analysis of Variance (ANOVA)

3.6.1 Factor Analysis with Varimax Rotation

Factor analysis is a data reduction process, but it differs from principle component analysis (PCA). In PCA, variance is the element leading to inclusion of an entity within a component, whereas in factor analysis, co-variance is the critical element. The consequence is that an entity needs not to be included within one factor and partially within one or more others. Factor analysis is frequently used in where there is need to see a relatively large number of measures reduced to fewer, one basic underlying variables. It is used as a means of detecting underlying structure or order among variables. These new composite variables or factor derived there identified from the context of the variables with which they are strongly co-related. These co-relations are called factor loadings.

To reveal the multiple dimensions produced by factor analysis, factor loadings are rotated according to various criteria, the most common of which is a varimax rotation. The rotation procedure group's variables that tend to co-relate highly with some factors and consider them together. This allows factors to be defined in terms of the variables with which they are highly co-related.

Factor analysis was initially developed in the context of psychology, but this technique has been used by few studies in library & Information science field also. McGrath et al. (1969) applied factor analysis to a formula for determining library collection, allocations of

academic departments. Data on 22 variables used for developing an allocation formula was analyzed using multiple co-relation and factor analysis. The data were reduces to three groups or factors. Phillips and Lyons (1990) choose factor analysis as a relevant technique to identify relationship among 19 of the questions they asked faculty regarding library policy. Saraf (1995) applied factor analysis for determining leadership behaviour styles and their effectiveness in the management of university libraries in India. Factor analysis has been also used to determine the factors in information needs study for identifying the main variables for information need, information channels, information sources and information barriers (Rahman, 1999; Bharali, 2000).

3.6.2 Inter-Correlation among the Inferred Variables

Correlations measure how variables or rank orders are related. It is a statistical device which helps in analyzing the co-variation of two or more variables. The degree of relationship and closeness between the variables under consideration is measured through the correlation analysis. This relationship is tested on items loaded in one factor between factors of the same group or between factors of different groups.

3.6.3 Analysis of Variance (ANOVA)

ANOVA is used to test the difference among the means of the cases by examining the amount of variation within each of these samples, relative to the amount of variation between the samples. The one-way ANOVA procedure produces a one-way analysis of variance for a quantitative dependent variable by a single factor (independent) variable. This technique is an extension of the two-sample t-test.



CHAPTER 4

ORGANIZATIONAL CLIMATE OF LIBRARIES

4.0 Organizational Climate

‘Organizational Structure’ refers to properties and processes of organization that exists without regard to the human components of the system while ‘Climate’ is the perception of the organization as a whole (Schneider, 1975). This organizational structure and process are determinates of climate which in turn determines organizational effectiveness. Thus, organizational effectiveness may be regarded as ‘the extend to which the organization is able to satisfy its clientele’. The organizational effectiveness variables suggested by Khandwalla (1988) is as follows:

- a. Operating context: type size, technology, culture etc.
- b. Strategy: goals, type of top management etc.
- c. Structure: super and infrastructure
- d. Process: leadership, innovation, organizational climate etc.

Thus, organizational effectiveness is the outcome of the organizational contextual, structure, strategic and process variables. Kelly (1974) identified structure, process and value dimensions as typical characteristics for assessing distinctive climates. Litwin and Stringer (1968) designed experimental studies for assessing organizational climate as a key variable. Campbell (1970) conducted surveys based on questionnaire and identified four basic variables of organizational climate. These are individual (1) autonomy (2) the degree of structure imposed upon the position (3) reward orientation and (4) consideration, warmth and support.

The libraries are also experiencing significant changes in their organizational structures and form of management due to application of information technology. The areas,

thus affected are: size of developments; centralization/decentralization; staff responsibility/job description; autonomy and management styles and skill (Lancaster, 1997). Line (1991) argues that library today calls for greater flexibility and a less hierarchical structure should result in a much more effective organization. Two surveys conducted in this area (Goodall, 1988; Blagden and Harrington, 1990) have shown that work on the subject is far most part repetitive and there is little attempt to build on pervious work in the development of new approaches. Soudck (1983) reviewed dimension, measurements and effects of organizational climate. Further, he focused on the relationship between organizational climate in academic libraries and professional behaviour of libraries. The author further, claims that no empirical research has been done taking into account the complexity of organizational climate in academic libraries. Findings of general studies of other organizational climate cannot be transferred to libraries because climates are contingent upon specific situational variables and nature of organizational climate in academic libraries should be examined in formal and systematic research studies.

It is assumed that type of organizational climate will determine the organizational effectiveness. The above discussion shows that organizational climate is a multidimensional construct and it is not possible to reduce it to a single large measure. In order to measure the organizational climate of four university libraries 'Section III' organizational climate of 'Questionnaire Booklet-1' (Appendix I) is used. Organizational climate questionnaire consist of 30 statement items on various aspects of organizational climate. This is based on Litwin and Stringer (1968)'s questionnaire which have been further modified by Schnake (1983). This scale has been already tested in various Indian organizations by Ansari (1990) and Indian academic libraries (Saraf, 1995).

4.1 Organizational Climate: Factor Analysis

30 items of 'Questionnaire Booklet-1' and Section III of "organizational climate" are submitted to factor analysis with varimax rotation. Measures constrained to 10 factors having eigen value more than one, amounting to 70.93 % of variance. Out of 10 factors loadings, seven were retained in the analysis based on the following criterion:

1. Factor loading of each item was not less than 0.30;
2. More than 3 items with above mentioned loadings were on one factor;
3. Items having significant loadings on more than two factors were credited to the factors on which loading was highest.

Seven factors with their loadings are shown in the following table no. 4.1 "Organizational Climate: Factor Analysis Results":

Table no. 4.1 Organizational Climate: Factor Analysis Results

Sl. no	Items	Factors						
		1	2	3	4	5	6	7
1	In this organization, we set very high standards for performance	0.606	-0.137	0.044	0.033	0.122	-0.061	0.269
2	We do not rely too heavily on individual judgment almost everything is double-checked.	0.415	0.010	0.006	0.262	0.180	0.124	0.514
3	If you make a mistake in this organization, you will definitely be criticized	0.572	0.270	0.054	0.384	0.048	0.053	0.295
4	People are proud of belonging to this organization	0.842	0.015	0.024	0.146	0.028	-0.037	-0.077
5	The policies and goals of this Organizations are clearly understood	0.802	-0.012	0.155	0.016	-0.099	0.091	-0.133
6	The goals I am supposed to achieve in my area are realistic	0.557	0.079	0.264	-0.135	0.210	0.157	-0.101
7	There is a feeling of pressure to continually improve our personal and group performance	0.126	-0.049	0.215	-0.022	-0.133	0.815	-0.018
8	Our philosophy emphasizes that people should solve problems by themselves	0.260	0.169	0.155	0.277	0.077	0.344	0.402
9	There is not enough reward and recognition given in this organization for doing work	0.049	0.014	-0.019	0.392	0.276	0.462	0.093
10	People in this organization don't really trust each other very much	-0.093	0.388	-0.167	0.120	0.360	0.610	-0.037

Percentage of Variance	23.93	10.41	5.86	5.61	5.28	4.30	3.92
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Note: Factor 1 = Structure-I, Factor 2 = Working condition, Factor 3 = Reward & warmth-I, Factor 4 = Inter-personnel relation-I, Factor 5 = Reward & warmth- II, Factor 6 = Inter-personnel relation-II and Factor 7 = Structure-II.

The above table indicates that total of 28 items out of 30 items loaded on factors with significant loadings. All items except 1 and 19 are loading rather neatly. Items loading on more than 2 factors with $>.3$ loadings are credited to factor having higher loading. Factors are named as follows:

Factor 1: Structure I

Five items load on this factors (items no. 1, 3, 4, 5 and 6). The loadings range from 0.557 to 0.842. Eigen value of this factor is 7.18 with 23.93% of variance. This factor favours more or less bureaucratic style with rigid rules and regulations and specialized jobs. This is the strongest factor. The items loadings on this factor are:

1. In this organization, we set very high standards for performance
2. If you make a mistake in this organization, you will definitely be criticized
3. People are proud of belonging to this organization
4. The policies and goals of this organizations are clearly understood
5. The goals I am supposed to achieve in my area is realistic

Factor 2: Working Condition

A total of 5 items (items no. 11, 17, 21, 22 and 25) loaded on this factor having loadings of $>.3$. Eigen value of this factor is 3.12 having 10.41% variance. This factor rather depicts the working conditions of four libraries. The working conditions of the libraries do not seem to be favourable. Name of items loadings on this factor are:

1. Things often seem to be pretty disorganized around here
2. Our productivity sometimes suffer from lack of organization and planning

3. The goals and standards in the organization do not usually demand the maximum effort of every individual
4. There is not much to encourage to take on increased responsibility in this organization
5. I have had very little opportunity to say what I think about the goals and standards that are set for my work

Factor 3: Reward & Warmth I

Hear again, 5 items loaded on this factor with the same criteria as done (items no.14, 15, 18, 26, and 27). The eigen value of factor is 1.76 with 5.86% variance. 'Reward & warmth' has been identified as an important variable of organizational climate .Rewards can be of two types: tangible benefits like pay increase, promotion, more desirable assignments, better work schedule and more time off. Another type namely contingent reward is praise for work done, recommendations for pay increases, bonuses and promotions and honours for outstanding service. The items loadings are:

1. Management frowns upon your checking everything with them. if you think you have got the right approach, you just go ahead
2. We have a promotion system that helps the best person rise to the top
3. Management sets challenging goals
4. In this organization, people are encouraged to initiate projects that they think are important
5. Good performance is recognized fairly quickly in this organization

Factor 4: Inter-Personnel Relation I

Only three items (items no. 12, 16 and 28) loaded on this factor. The loadings range from 0.780 to 0.349. The eigen value of factor is 1.68 with 5.61% variance. The items are as follows:

1. In this organization, I am given a chance to participate in setting the performance standards for my job
2. People in this organization tend to be cool and aloof towards each other
3. I have a clear idea of what I am supposed to do in my job

Factor 5: Reward & Warmth II

Again only three items (items no.19, 20 and 24) loaded on this factor. This factor has eigen value of 1.58 and 5.28% variance. This factor is similar to factor 3 'Reward & warmth I'. The loadings range from: 0.886 to 0.427. Items loadings on this factor are

1. In this organization, people are rewarded in proportion to the excellence of their job performance.
2. In this organization, performance is evaluated regularly against agreed upon goals and standards.
3. There is a lot of warmth in the relationships between management and other personal in this organization

Factor 6: Inter-Personnel Relation II

This factor has three items (7, 9 and 10) with loadings ranging 0.815 to 0.344. It has eigen value of 1.29 with 4.30 % variance. Characteristics of this factor are having strong resemblance to factor 4 "inter-personnel relation I" It is assumed that the higher the inter personnel relations in the organization, Better the organizational climate is. There are two ways of seeing inter-personnel relations in an organization. Traditional view emphasizes the ability to socialize, to fit with group norms, to comply with authority to avoid conflict and be polite. Second view propounded by human relations movement conceived inter-personnel relations as involving empathy, insight, heightened awareness and the ability to give and receive feedback (Bass, 1990). This is third strongest factor and items loadings on this factor are:

1. There is a feeling of pressure to continually improve our personal and group performance
2. There is not enough reward and recognition given in this organization for doing work
3. People in this organization don't really trust each other very much

Factor 7: Structure II

The seventh factor having eigen value of 1.18 and 3.92% variance had 4 items (items no. 2, 8, 13 and 23) loading with $> .3$. Items loading show similarly with factor 1 'Structure I'. The loading range from 0.813 to 0.300. The four items loading on this factor are:

1. We do not rely too heavily on individual judgment almost everything is double-checked.
2. Our philosophy emphasizes that people should solve problems by themselves
3. In this organization, people don't seem to take much pride in the excellence of their performance
4. The rewards and encouragement that you get usually outweigh the treats and criticism

4.2 Final Factor Analysis

The above analysis shows that there are similarities between some factors identified above. Factor 1 "Structure I" and factor 7 "Structure II" are having similar characteristic whereas factor 3 "Reward & warmth I" and factor 5 "Reward & warmth II" are also showing similar characteristics. Further, there are again two factors on inter-personnel relations namely factor 4 and factor 6. In order to get better results better, it was decided to merge the similar factors for further analysis and understanding results more effectively. The factors thus, merged are shown in the following table no. 4.2 "Final Factors Retained for Organizational Climate"

Table no. 4.2 Final Factors Retained for Organizational Climate

Sl. no.	Final Factors	Factors Merged	Items loading	Eigenvelues	Variance %	Cumulative Variance %
1	Structure	Structure-I and Structure-II	9	8.36	27.84	27.84
2	Working condition	Working condition	5	3.12	10.40	37.89
3	Reward & warmth	Reward & warmth-I and Reward & warmth- II	8	3.34	11.13	49.02
4	Inter-personnel relation	Inter-personnel relation-I and Inter-personnel relation-II	6	2.97	9.89	58.91

The above table shows that only four factors are retained for further analysis by merging similar factors. These are structure with 27.84% variance followed by reward & warmth with 11.13% variance, working condition with 10.4% variance and inter-personnel relations with 9.89% variance respectively. A total of 28 variables out of 30 variables are taken into account for final analysis. The factors loading amount to total 58.91% variance.

4.3 Inter-Correlation among Organizational Climate

Inter-correlations, mean scores and other statistical information about these four factors are entered in the following table no. 4.3 “Inter-correlations and Mean scores among Organizational Climate” The following table no. 4.3 shows:

Table no. 4.3 Inter-Correlation and Mean score among Organizational Climate

Sl. no.	Factors	1	2	3	4
1	Structure	x			
2	Working condition	0.32**	x		
3	Reward & warmth	0.47**	0.44**	x	
4	Inter-personnel relation	0.26*	0.26*	0.34**	x
	No. of Items	9	5	8	6
	Mean	27.17	15.21	22.22	20.87
	Rank	1	4	2	3

Note: n = 78 and **p< 0.01,*p< 0.05. Factor 1 = Structure, Factor 2 = Working condition, Factor 3 = Reward & warmth and Factor 4 = Inter-personnel relation

The above table shows high correlation among four variables of organizational climate. Structure is having positive significant relations with all factors. Reward & warmth is significantly related with structure (r=.47 p<0.01) and working conditions (r=.44 p<0.01). Further, mean score suggested that structure ranks first followed by reward & warmth and inter-personnel relation respectively. Working condition ranks fourth among all variables.

4.4 Organizational Climate versus University Libraries

In order to ascertain whether organizational climate has significant differences among four university libraries. One way ANOVA was computed to check the significant differences among the university libraries identified for the purpose of this study. Table no. 4.4 “Organizational Climate versus University Libraries (ANOVA)” is showing the ranks and F ratios of various university libraries:

Table no. 4.4 Organizational Climate versus University Libraries (ANOVA)

Sl. no.	Organizational Climate & Rank	University Libraries					df
		DUL (n=48)	BUETL (n=18)	NSUL (n=5)	IUBL (n=7)	Total (n=78)	F Ratios
1	Structure (9)*	29.40	30.89	32.40	32.43	30.21	1.00
	RANK	4	3	2	1	-	-
2	Working condition (5)*	15.15	16.33	14.60	13.14	15.21	1.31
	RANK	2	1	3	4	-	-
3	Reward and warmth (8)*	24.10	28.83	23.40	26.14	25.33	8.61**
	RANK	3	1	4	2	-	-
4	Inter-personal relations (6)*	20.02	23.50	20.60	20.14	20.87	.90
	RANK	4	1	2	3	-	-

Note: * Number in parenthesis indicates number of items constituting a factor. DUL= University of Dhaka Library, BUETL= Bangladesh University of Engineering & Technology Library, NUSL= North-South University Library, IUBL=Independent University of Bangladesh Library.

The above table indicates that BUETL ranks first on three factors namely working conditions, reward & warmth and inter-personnel relations whereas IUBL has highest ranking on factor structure. Further, IUBL has second ranking on reward & warmth and third on inter personnel relations and fourth on working conditions. DUL ranks last on two factors namely structure and inter-personnel relations whereas it ranks second and third on factors working conditions and reward & warmth respectively. Ranking of NSUL is some what in the middle as it ranks second on two factors namely structure and inter personnel relations. It also has third ranking (Working condition) and fourth ranking (Reward & warmth).

For simplifying the presentation of mean scores of different university libraries, the following table no. 4.5 “Ratings of University Libraries on Organizational Climate” shows the rankings of the four university libraries on four organizational climate factors:

Table no. 4.5 Ratings of University Libraries on Organizational Climatic

Sl. no.	Organizational Climate	University Libraries			
		High to Low			
1	Structure	IUBL	NSUL	BUETL	DUL
2	Working condition	BUETL	DUL	NSUL	IUBL
3	Reward & warmth	BUETL	IUBL	DUL	NSUL
4	Inter-personal relation	BUETL	NSUL	IUBL	DUL

It is clear from the table no. 4.5 that BUETL is ranking highest on three factors of organizational climate followed closely by IUBL is having highest rank in structure DUL ranks fourth in two factors. NSUL has two rankings on two factors and also ranks on third and fourth position. Therefore, we can safely conclude that BUETL is having favourable organizational climate followed closely by IUBL. DUL is having the most unfavourable organizational climate whereas NSUL falls in the middle.

Results show consistency with the information drawn from other sources. It has been personally observed that BUETL is better organized as compared to DUL and provides better

service to its users. It is the only library with a full-fledged Librarian. DUL being the largest and oldest library with maximum collection and staff inherits the problem of its own. It has no librarian and only acting librarian is functioning since last more than twenty years. It has to cater to huge population of more than 22,000 students and about 1300 teachers. The professionals working in BUETL are more qualified as compared to DUL. Regarding IUBL and NSUL library, they are relatively new libraries and had the advantage of starting a fresh which helped to recruit better qualified young library professional with knowledge of information technology. Salary structure is also very high therefore, high motivational levels. These libraries are better automated and provide better services to the users.

4.5 Organizational Climate versus Public and Private University

Libraries

In order to verify our results further, one way ANOVA was computed to check the significant difference between public and private university libraries. DUL and BUETL are public university libraries as they are funded by the government. NSUL and IUBL are private university Libraries as they are funded by Non government organization but recognized by University Grants Commission of Bangladesh. ANOVA thus, computed is presented in the table no. 4.6 “Organizational Climate versus Public and Private University Libraries.”

Table no. 4.6 Organizational Climate versus Public and Private University Libraries (ANOVA)

Sl. no.	Organizational Climate	Mean Scores				df 1/76
		PUUL (n=66)	PRUL (n=12)	Between groups	Within groups	F Ratios
1	Structure	29.80	32.42	69.36	32.36	2.147
	RANK	2	1	-	-	-
2	Working condition	15.47	13.75	30.03	26.34	0.145
	RANK	1	2	-	-	-
3	Reward & warmth	25.00	25.40	1.58	26.34	0.807
	RANK	2	1	-	-	-
4	Inter-personnel relation	20.97	20.33	4.11	61.03	0.796
	RANK	1	2	-	-	-

Note: PUUL =Public University Libraries and PRUL= Private University Libraries.

The above table shows that public university libraries have higher mean scores on two organizational climate factors whereas private university libraries have higher mean scores on first two organizational climate factors namely structure and Reward & warmth. However, F ratios are not showing any significance, thereby indicating that there is only marginal difference the organizational climate of private university libraries and public university libraries. But it can be safely concluded that private university libraries are having better organizational climate than public university libraries.

4.6 Conclusion

Four factors emerge after factor analysis of 30 organizational climates items. These are structure, working conditions, reward and warmth, and interpersonal relations. These four factors are highly inter-correlated. Among the four factors, structure tops the list followed by reward and warmth, interpersonal relations and working conditions respectively. ANOVA results of organizational climate versus different university libraries show ranking of four

university libraries on four factors of organizational climate. Bangladesh University of Engineering and Technology Library rank first in three factors. Second ranking goes to Independent university of Bangladesh library whereas North-South University library and University of Dhaka Library rank third and fourth respectively. University of Dhaka Library has last rank on main two factors of organizational climate. Therefore, on the basis of this classification and ranking, libraries are categorised into favourable (Bangladesh University of Engineering and Technology Library and Independent university of Bangladesh library) and unfavourable climates (North-South University library and University of Dhaka Library). It was of interest to know the difference between public and private university libraries. ANOVA thus, computed shows that private university libraries are high on two main factors of organizational climate and public university libraries are high on two lowest factors of organizational climate. Thus, it can be safely concluded that private university libraries are having favourable organizational climate as compared to public university libraries.



CHAPTER 5

LEADERSHIP BEHAVIOUR STYLES AND JOB SATISFACTION OF LIBRARY PROFESSIONAL

5.1.0 Leadership Behaviour Styles:

Academic libraries share many common norms and values as any other organization performing essentially the same function. Besides it may create specific norms and values for any library function which can distinguish it from other organizations. One of the important components of library organization is library professional. Du Mont and Du Mont (1979) identified a distinct relationship between the pursuit of organizational goals and required tasks of individuals. Their study was based on literature review. Such an approach has its major focus on the maximization of library performance through the efficient use of the library's resources and one of the library resources are library professional working in it. Further, Motivational processes and styles of supervision or leadership are related to the effectiveness of library professional. Affective library professional will lead to library effectiveness. Different leadership styles will induce different organizational climates has been tested in various organization (Litwin & Stringer 1968).

Since, effectiveness of leadership has been identified as one of the components of effective organizations. Various aspects of library leadership namely qualities of library leaders (Price, 1987), learning styles of library leaders (Choi, 1989), decision styles of librarians (Mech, 1993) have been studied. Some of the studies emphasis use of behaviour methodologies and some have tried using methods applied in library and information science e.g. citation analysis (Bandelin, 1991). Riggs (1997) suggested a transformational leadership

as academic libraries are reshaping, rewarding and undergoing unparalleled. These transformational leaders are supposed to be excellent strategists, strong planners, synthesizers, change agents and visionaries. However, little attention has been paid on conducting empirical studies for identifying leadership behaviour styles. Few studies were also conducted using Ohio state leadership model (Sparks, 1976; Dragon, 1979; Scamell and Stead, 1984) and result were consistent with other empirical studies conducted. In spite of all these efforts, a clear picture of effective model of library leadership has not emerged so far. With this background and underlying assumption that there is a relationship between leadership behaviour styles and library effectiveness, the leadership behaviour styles of four university library professionals is studied.

5.1.1 Leadership Behaviour Styles: Factor Analysis

Responses to the fifty items of section I “Leadership Behaviour Scale” of questionnaire booklet-1 (Appendix I) were used to assess the leadership behaviour styles of immediate boss. These fifty single statement items are based on the scale developed by Sinha (1980) and tested by Hassan (1986), Ansari (1986) in various Indian organizations. Saraf (1995) used the scale to examine the leadership behaviour styles of Indian academic libraries. Five types of styles are evenly distributed among these fifty items. These items are Authoritative (F), Participative (P), Nurturant (N), Task Oriented (T), and Bureaucratic (B). Scores of these fifty items were submitted to factor analysis with varimax rotation. These items constrained to 14 factors with total of 72.18 % of variance. Out of 14 factors, only 8 meaningful and interpretable factors were retained in the final analysis based on the following criterion:

1. Factor loadings of each item was not less than 0.30;
2. More than 3 items with above mentioned loadings were on one factor;

3. Items having significant loadings on more than two factors were credited to the factors on which loading was highest;

4. Eigen value is more than 1

The factor loadings obtained in these factors are reported in the table no. 5.1“Leadership

Behaviour Styles: Factor Analysis Results”

Table no. 5.1 Leadership Behaviour Styles: Factor Analysis Results

Sl. no.	Items	Factors							
		1	2	3	4	5	6	7	8
1	He/She maintains partnership in the group	0.274	0.111	0.720	0.161	0.154	0.106	0.006	-0.047
2	He/She helps his/her subordinates in their career planning	0.122	0.300	0.745	-0.062	-0.018	0.029	0.048	0.127
3	He/She helps his/her subordinates to grow up and assume greater responsibility	0.079	0.087	0.588	0.054	0.348	0.162	0.047	0.067
4	He/She explains to his/her subordinates what he/she expects from them and what they can expect from him/her	0.247	0.228	0.394	0.148	0.174	0.040	-0.107	0.065
5	He/She makes his/her subordinates feel free even to disagree with him/her	0.086	0.036	0.127	0.100	0.783	0.035	-0.052	0.149
6	He/she provides all information to his/her subordinates and lets them jointly find the solution of a problem	0.523	0.098	0.363	0.141	0.362	0.151	0.136	0.046
7	He/She behaves as if power and prestige are necessary for getting compliance from the subordinates	-0.107	-0.314	-0.191	0.356	-0.211	0.084	0.306	0.143
8	He/She helps his/her subordinates even in family matters	-0.009	0.114	0.044	0.276	0.377	0.461	-0.048	-0.036
9	He/She interacts with his/her subordinates as if they are equal	-0.191	0.241	0.055	0.460	0.328	0.165	0.110	0.200
10	He/She takes special care that work gets top priority	0.265	0.252	0.510	-0.112	0.100	0.369	0.069	0.165
11	He/She treats all group members as his/her equal	0.138	0.073	0.129	0.096	0.610	0.329	0.215	0.196
12	He/She believes that most of the interpersonal troubles start because people try to be over friendly and informal on the job	0.138	0.112	0.183	0.036	0.154	0.746	0.103	0.066
13	He/She believes that	0.522	0.227	0.244	0.055	0.186	0.419	-0.057	0.136

	subordinates acquire a sense of responsibility under the care and guidance of a good leader								
14	He/She thinks that clear job description is necessary for the effective functioning of the employee	0.214	0.378	0.282	0.309	0.030	0.264	0.246	-0.046
15	He/She expects his/her subordinates to increase their knowledge on the job	0.297	0.229	0.419	0.230	-0.042	0.547	0.124	0.283
16	He/She does not think that his/her subordinates deserve to be officers	-0.028	0.012	0.144	0.071	0.176	0.131	-0.098	0.674
17	He/She openly shows affection to those subordinates who work hard	0.299	0.225	0.145	0.121	0.196	0.066	-0.001	0.411
18	He/She thinks that he/she is always right	0.088	0.072	0.116	0.631	-0.088	0.239	0.138	0.398
19	He/She gives as much responsibility as his/her subordinates can handle	0.199	0.144	-0.046	0.083	0.181	0.410	0.429	0.262
20	He/She believes that one can really grow up by learning to do a job well	0.301	0.113	-0.060	0.212	0.084	0.086	0.363	0.170
21	He/She considers seniority as a time tested criterion for promotion	0.052	0.159	0.225	0.635	0.013	-0.034	0.182	0.212
22	He/She sees to it that subordinates work to their capacity	0.458	0.053	0.122	0.364	-0.165	0.156	0.034	0.397
23	He/She always follows standard rules and regulations	0.750	0.180	0.084	0.043	-0.089	0.034	0.166	0.051
24	He/She grants full freedom and autonomy to his/her subordinates so that they can work best	0.544	0.058	0.215	-0.020	0.187	-0.151	-0.100	0.164
25	He/She rules with an iron hand in order to get the work done	-0.004	-0.068	-0.290	0.596	0.121	0.012	0.155	-0.174
26	He/She wants to have full power and control over his/her subordinates	0.161	-0.034	-0.015	0.738	0.209	0.094	-0.008	-0.041
27	He/She encourages free and frank interaction among members	0.581	0.134	0.163	0.223	0.363	0.164	-0.010	0.041
28	He/She drives himself really hard	0.123	0.030	0.058	0.124	-0.040	0.048	0.755	-0.012
29	He/She easily categorizes his/her subordinates as good and bad	0.369	0.010	0.423	0.352	0.058	-0.153	0.351	0.062
30	If the subordinates need help he/she helps as much he/she can	0.699	0.166	0.275	0.022	0.099	0.201	0.238	0.151
31	As and when necessary, he/she gives specific directions to his/her subordinates	0.303	0.314	0.115	-0.075	0.202	0.089	0.147	0.611

32	He/She favours that the area of responsibility should be clearly demarcated according to ranks and positions	0.129	0.145	-0.364	0.247	0.067	0.562	0.226	0.047
33	He/She always keep/ track of the progress of work	0.349	0.269	-0.089	0.142	0.200	0.141	0.545	-0.013
34	He/She confines himself/herself to his/her own jurisdiction	0.116	0.010	0.148	0.174	0.248	0.321	0.539	0.154
35	He/She tells his/her subordinates how well are they doing their job	0.245	0.116	0.062	0.134	0.475	0.086	0.198	0.199
36	He/She feels responsible for the well being of his/her subordinates	0.217	0.144	-0.124	0.200	0.141	-0.007	0.146	0.686
37	He/She makes it clear that personal loyalty is an important virtue	0.629	0.416	0.068	0.044	-0.008	0.130	0.306	0.109
38	He/She is a friendly type	0.072	0.574	0.067	0.175	0.420	-0.133	0.303	0.212
39	He/She always goes by the rules and procedures	0.203	0.770	0.296	0.034	-0.001	0.050	0.081	0.132
40	He/She maintains a strict division of labour even in his/her own group	0.044	0.321	-0.061	0.072	0.013	0.188	0.081	-0.002
41	He/She finds time to listen to the personal problems of the subordinates	0.160	0.724	0.231	-0.104	0.170	0.131	0.078	0.067
42	He/She does not tolerate any interference from his/her subordinates	0.016	0.580	-0.140	0.266	-0.201	0.177	-0.021	0.118
43	He/She has affection for his/her subordinates	0.306	0.760	0.134	0.029	0.089	0.118	-0.043	0.060
44	He/She believes that if he/she does not watch out, there are many people who may pull him/her down	-0.230	0.404	-0.445	0.171	-0.090	0.269	0.168	0.143
Eigenvalues		12.602	3.85	2.56	2.23	1.93	1.79	2.56	1.66
Percentage of Variance		25.20	7.69	5.11	4.46	3.86	3.58	3.46	3.32

Note: Factor 1 = Participative-I, Factor 2 = Bureaucratic-I, Factor 3 = Nurturant, Factor 4 = Authoritarian-I, Factor 5 = Participative-II, Factor 6 = Bureaucratic-II, Factor 7= Task Oriented, and Factor 8 = Authoritarian-II.

The above table shows that eight factors loading on the above criteria have total of 55.68% of variance and a total of 44 items out of 50 items are loading on the factors. These eight factors get distributed among five already identified factors of the leadership styles. Factor1 and factor 5 are similar factor and are named as Participative I and Participative II

respectively. Factor 2 and factor 6 are based on bureaucratic characteristics and are named as Bureaucratic I and Bureaucratic II respectively. Authoritarian style of leadership also gets distributed to two factors. These are factor 4 and factor 8 names as Authoritarian I and Authoritarian II respectively. However, Nurturant style and task oriented style each is loading on one factor each. They are factor 3 named as Nurturant and factor 7 named as Task Oriented. In order to simplify and get better results it was decided to merge the similar factors because of their similarities in features and qualities.

5.1.2 Final Factor Analysis

The table no. 5.2 “Leadership Behaviour Styles: Final Factors” shows the final factors leadership behaviour styles which are retained for final analysis.

Table no. 5.2 Leadership Behaviour Styles: Final Factors

Sl. n0.	Final Factors	Factors Merged	Items Loading	Eigenvalues	Variance %	Cumulative Variance %
1	Participative	Participative-I and Participative-II	11	14.53	29.06	29.06
2	Bureaucratic	Bureaucratic-I and Bureaucratic-II	12	5.64	11.27	40.33
3	Nurturant	Nurturant	6	5.11	5.11	45.44
4	Authoritarian	Authoritarian-I and Authoritarian-II	10	6.69	7.78	53.22
5	Task Oriented	Task Oriented	5	3.47	3.46	56.68

The five factors thus identified are described below:

Factor 1 Participative

A total of 11 items are loading on this factor (Participative I = 8, Participative II = 3) Loadings range from 0.458 to 0.783 and total variance of the factor is 29.06%. Characteristics of this factor are considerate, sharing and equality. It is synonymous with

democratic and people oriented style. Here leader shares his decision making policy with his subordinated and subordinates are highly motivated. Items loading on this factor are:

1. He/she provides all information to his/her subordinates and lets them jointly find the solution of a problem
2. He/She believes that subordinates acquire a sense of responsibility under the care and guidance of a good leader
3. He/She sees to it that subordinates work to their capacity
4. He/She always follows standard rules and regulations
5. He/She grants full freedom and autonomy to his/her subordinates so that they can work best
6. He/She encourages free and frank interaction among members
7. If the subordinates need help he/she helps as he/she can
8. He/She makes it clear that personal loyalty is an important virtue
9. He/She makes his/her subordinates feel free even to disagree with him/her
10. He/She treats all group members as his/her equal
11. He/She tells his/her subordinates how well are they doing their job

Factor 2: Bureaucratic

Eight items of bureaucratic I and four items of bureaucratic II are merged together to form the factor Bureaucratic. Loadings range from 0.378 to 0.770. The total variance of this factor is 11.27%. A Bureaucratic leader does not tolerate interference and maintains strict division of labour. He or she is also very insecure. Bureaucratic style makes people cautious, conservative and have strict adherence to legality of rules and regulations. The following items are loadings on this factor:

1. He/She thinks that clear job description is necessary for the effective functioning of the employee
2. He/She is a friendly type
3. He/She always goes by rules and regulations
4. He/She maintains a strict division of labour even in his/her own group
5. He/She finds time to listen to the personal problems of the subordinates
6. He/She does not tolerate any interference from his/her subordinates
7. He/She has affection for his/her subordinates
8. He/She believes that if he/she does not watch out, there are many people who may pull him/her down
9. He/She helps his/her subordinates even in family matters
10. He/She believes that most of the interpersonal troubles start because people try to be overfriendly and informal on the job
11. He/She expects his/her subordinates to increase their knowledge on the job
12. He/She always follows standard rules and regulations

Factor 3: Nurturant

Six items are loading on single factor with total of 5.11% of variance. This factor lays emphasis on the helping attitude of the leader towards his subordinates. A Nurturant leader cares for his subordinates by showing affection, caring and takes keen interest in the personal as well as official well being of the subordinates(Sinha,1980). Kaker (1971) identified that nurturant style is a preferred style in India. Saraf (1995) was also able to identify nurturant style among university librarians of India. Six items loading on this factor are:

1. He/She maintains partnership in the group
2. He/She helps his/her subordinates in their career planning
3. He/She helps his/her subordinates to grow up and assume greater responsibility
4. He/She explain to his/her subordinates what he/she expects from them and what they can expect from him/her

5. He/She takes special care that work gets top priority
6. He/She easily categorizes his/her subordinates as good and bad

Factor 4: Authoritarian

A total of ten items are loading on this factor (factor Authoritarian I =6 and factor Authoritarian II = 4) having 7.78% of variance. The loadings range from 0.356 to 0.738. Description of this style of leadership is anxiety, insecurity, suspicion, power and control. The authoritarian leader uses his power and supervises closely and is rigid. The tasks are accomplished but subordinates are dissatisfied. This style is not people oriented style. The items loading on this factor are as follows:

1. He/She behaves as if power and are necessary for getting compliance from the subordinates
2. He/She interacts with his/her subordinates as if they are equal
3. He/She thinks that he/she is always right
4. He/She considers seniority as a time listed criterion for promotion
5. He/She rules with an iron hand in order to get the work done
6. He/She wants to have full power and control over his/her subordinates
7. He/She does not think that his/her subordinates deserve to be officers
8. He/She openly shows affection to those subordinates who work hard
9. As and when necessary, he/she gives specific direction to his/her subordinates
10. He/She feels responsible for the well being of his/her subordinates

Factor 5: Task oriented

Only five items are loading on this factor with 3.46% of variance. The factor loadings range from 0.363 to 0.756. Task oriented leader drives his subordinates hard towards organizational goals by emphasising on tasks to be done. They are conceived as performance oriented rather than people oriented. The loadings items are:

1. He/She gives as much responsibility as his/her subordinates can handle

2. He/She believes that one can really group up by leaving to do a job well
3. He/She drives himself really hard
4. He/She always keep track of the progress of work
5. He/She confines himself/herself to his/her own jurisdiction

5.1.3 Inter-Correlation and Mean scores among Leadership Behaviour Styles

Inter-correlations and mean score among the five factors of the leadership styles are presented in the following table no.5.3 “Inter- Correlation and Mean scores among Leadership Behaviour Styles”:

Table no. 5.3 Inter-Correlation and Mean score among Leadership Behaviour Styles

Sl. no.	Factors	1	2	3	4	5
1	Participative	x				
2	Bureaucratic	0.60**	x			
3	Nurturant	0.67**	0.55**	x		
4	Authoritarian	0.55**	0.53**	0.42**	x	
5	Task Oriented	0.50**	0.54**	0.28*	0.59**	x
	No. of Items	11	12	6	10	5
	Mean	37.76	39.29	21.04	33.04	16.60
	Rank	2	1	4	3	5

Note: n = 78 and **< 0.01, *p< 0.05. Factor 1 = Participative, Factor 2 = Bureaucratic, Factor 3 = Nurturant, Factor 4 = Authoritarian and Factor 5 = Task Oriented.

The table indicates that all leadership behaviour styles are having high positive correlation with each other. The bureaucratic style is highly endorsed followed by participative style and authoritarian style respectively. The least endorsed two styles are authoritarian and task oriented styles. This indicates that library personnel perceive their bosses as more bureaucratic and participative in styles than authoritarian and task oriented. It is of interest to know how the organizational climates of different universities influence the

leadership behaviour styles. Correlations computed in table no: 5.4 “Correlation between leadership styles and organizational climates” shows that structure is positive significant relation with all leadership behaviour styles except with task oriented. Reward and warmth also shows positive relationship with bureaucratic style. Working conditions and inter-personnel relations do not relate with any style. Therefore, it is safe to say that participative style, bureaucratic style, Nurturant style and authoritarian style is highly endorsed if the organizational climate is high on structure. Other factors do not seem to have any impact on any leadership style except reward & warmth on bureaucratic style.

Table no. 5. 4 Correlations between Leadership Behaviour Styles and Organizational Climates

Leadership Behaviour Styles	Organizational Climate			
	Structure	Working condition	Reward & warmth	Inter-personnel relation
Participative	0.31**	-0.01	0.05	0.02
Bureaucratic	0.45**	0.14	0.28*	0.01
Nurturant	0.38**	-0.03	0.01	-0.04
Authoritarian	0.28*	0.22	0.08	0.15
Task Oriented	0.04	0.04	-0.05	-0.05

Note: n = 78 and **< 0.01, *p< 0.05.

5.1.4 Leadership Behaviour Styles versus University Libraries

In order to ascertain whether four university libraries differ in leadership styles identified, ANOVA was computed between leadership behaviour styles and four university libraries and the results are presented in the following table no. 5.5 “Leadership Behaviour Styles versus University Libraries (ANOVA)”:

Table no: 5.5 Leadership Behaviour Styles versus University Libraries (ANOVA)

Sl. no.	Variables and Rank	University Libraries					df 3/74
		DUL	BUETL	NSUL	IUBL	Total	F Ratios

		(n=48)	(n=18)	(n=5)	(n=7)	(n=78)	
1	Participative(11)*	36.48	38.39	35.40	46.57	37.76	5.65*
	RANK	3	2	4	1	-	-
2	Bureaucratic (12)*	38.13	41.23	39.60	42.00	39.29	1.11
	RANK	4	2	3	1	-	-
3	Nurturant (6)*	20.77	20.17	22.40	24.14	21.04	2.59
	RANK	3	4	2	1	-	-
4	Authoritarian (10)*	33.44	32.38	33.00	30.86	33.04	.496
	RANK	1	3	2	4	-	-
5	Task Oriented (5)*	16.69	16.44	16.80	16.29	16.6	.065
	RANK	2	3	1	4	-	-

Note: * Number in parenthesis indicates number of items constituting a factor. DUL= University of Dhaka Library, BUETL= Bangladesh University of Engineering & Technology Library, NUSL= North-South University Library, IUB=Independent University of Bangladesh Library.

The above table shows that IUBL endorses three styles namely participative, bureaucratic and nurturant highly. BUETL also endorse participative and bureaucratic style highly. DUL ranks first and second on authoritarian and Task oriented styles. It shows that they highly endorse these styles and participative and bureaucratic styles are least endorsed. Similar is the situation with NSUL where task oriented and authoritarian styles are highly endorsed and other three styles are least endorsed. Therefore, it can be safely concluded that IUBL and BUETL are high on participative, bureaucratic and nurturant styles and low on authoritarian and task oriented styles. DUL and NSUL are high on authoritarian and task oriented styles and low on participative, bureaucratic and nurturant styles. Surprisingly bureaucratic style is highly endorsed in favourable organizational climates along with participative and nurturant styles (BUETL and IUBL) Authoritarian style is highly endorsed by unfavourable organization climate along with task oriented style (DUL and NSUL). F ratio shows significance for only participative style of leadership and other leadership styles do not show significant ratios. The only reason given for these findings is that people in the subcontinent idolise bureaucrats with power prestige. Sinha and Sinha (1974) also identified certain Indian societal values namely-lack of commitment, preference for personalised relationships, dependence, and lack of team orientation and preference for showing off. On

the basis of above findings, and general assumption that people oriented styles of leadership will be more effective, a general following hypothesis is forwarded:

Hypothesis # H₁: The favourable the organizational climate is, the more people oriented leadership styles the leader is having whereas, the less favourable the organizational climate is, and the authoritarian style the leader is having.

The above discussion of organizational climate has already concluded that BUETL and IUBL are having favourable organizational climate and DUL and NSUL are having unfavourable organizational climate. (Table no. 4.4 “Organizational Climate versus University Libraries - ANOVA)” and Table no. 4.5 “Ratings of University Libraries on Organizational Climatic Factors” in Chapter 4) in order to test the above hypothesis, ratings of the four university libraries on five leadership style are presented in the following table no. 5.6 “Ratings of University Libraries on Leadership Behaviour Styles Factors”:

Table no. 5.6 Ratings of University Libraries on Leadership Behaviour Styles Factors

Sl. no.	Factors	University Libraries			
		High to Low			
1	Participative	IUBL	BUETL	DUL	NSUL
2	Bureaucratic	IUBL	BUETL	NSUL	DUL
3	Nurturant	IUBL	NSUL	DUL	BUETL
4	Authoritarian	DUL	NSUL	BUETL	IUBL
5	Task Oriented	NSUL	DUL	BUETL	IUBL

Note: DUL= University of Dhaka Library, BUETL= Bangladesh University of Engineering & Technology Library, NSUL= North-South University Library, IUB=Independent University of Bangladesh, Library.

It is very clear from the above table that IUBL and BUETL, having favourable organizational climate are endorsing people oriented leadership styles namely participative, bureaucratic, and nurturant styles. DUL and NSUL having less favourable organizational climates endorse authoritarian and task oriented styles. Only conflict is that BUETL is

ranking fourth on this style. Further, in order to see the difference between private and public universities on different leadership styles, ANOVA was computed between leadership behaviour styles and public and private universities. The results are presented in the table no.5.7 “Leadership Behaviour Styles versus Public and Private University Libraries (ANOVA)”:

Table no. 5.7 Leadership Behaviour Styles versus Public and Private University Libraries (ANOVA)

Sl. no.	Leadership Behaviour Styles & Rank	University Libraries			df 1/76
		PUUL (n=66)	PRUL (n=12)	Total (n=78)	F Ratios
1	Participative(11)*	37.00	41.92	37.76	5.69*
	RANK	2	1	-	-
2	Bureaucratic (12)*	38.98	41.00	39.29	0.72
	RANK	2	1	-	-
3	Nurturant (6)*	20.61	23.42	21.04	6.71*
	RANK	2	1	-	-
4	Authoritarian (10)*	33.27	31.75	33.04	0.86
	RANK	1	2	-	-
5	Task Oriented (5)*	16.62	16.50	16.60	0.02
	RANK	1	2	-	-

Note: * Numbers in parenthesis are number of items constituting a factor. PUUL =Public University Libraries and PRUL= Private University Libraries.

It is very clear from the above table that private universities are endorsing people oriented leadership styles highly whereas, public universities endorse authoritarian and task oriented styles as compared to people oriented styles. It is already concluded that private universities are having better organizational climate than public universities (Table 4.6: “Organizational Climate versus Public and Private University Libraries–ANOVA” in chapter 4). F ratios are highly significant for participative and nurturant styles. It suggests that these styles differ in two types of organizations. Therefore, it can be safely concluded that favourable organizational climates have people oriented leadership styles and unfavourable

organizational climate has authoritarian style of leadership. Therefore, the hypothesis is accepted.

5.2.0 Job Satisfaction

Job satisfaction is the employee's feelings and emotional response towards the working environment. Further, job satisfaction is perceived as multifaceted or multidimensional construct. Even though, much research has been conducted on job satisfaction of various librarians working in different environments, there seems to be hardly any study relating it directly to the library effectiveness. Job satisfactions have been studied in relation to faculty status and participation (Horenstein, 1993; Leckie and Brett, 1997), job satisfaction and performance in a changing environment (Siggins, 1992) and job satisfaction of beginning librarians (D'Elia, 1979). However, most of the studies have been conducted taking only socio economic variables into consideration. For example, gender difference and job satisfaction among librarians (Wabha, 1975), comparative study between two countries (Plate and Stone, 1974) and identifying job satisfaction in different types of libraries (Vaugh and Dunn, 1974; Lynch and Verdin, 1987; Parmar and East, 1993 and Thornton, 2000;). Job satisfaction has been related to leadership behaviour styles and organizational climates also. Merchant (1970, 1971) identified participative management style as the strongest predictor of librarians job satisfaction. He concluded that librarians higher on participative management style are likely to be more satisfied in their jobs and perform more efficiently. Managerial performance is related to employee satisfaction, employee productivity and ultimately organizational effectiveness. His findings are further tested and supported by Bengston and Shields. (1985). Du Mont and Du Mont(1979) while reviewing related literature felt that some studies reflect intense interest in effectiveness of individual performance in libraries as it

relates to library effectiveness in general.. They conclude that library effectiveness is influenced by the behaviour of the library professional, as well as the ability of the library to interact with individuals and its communities in a variety of ways over time. Further, their integrated and system model of library effectiveness shows satisfied professional as one of the outputs. The behavioural studies have already made it clear that certain organizational structures and styles of leadership are more conducive to fulfilling these needs than others. “These studies show that the library is likely to be judged effective by its employee if in the short run employees are motivated, if additionally over a longer period of time, they feel a sense of achievement and are recognized for what they do; and ultimately if they perceive the possibility for growth on the job”

It is clear from the review of above studies that leadership behaviour style, job satisfaction and organizational effectiveness are related to each other. It can be safely postulated that an effective organizational climate leads to satisfied employee. Further, satisfied employee will try to have people oriented leadership styles which will ultimately lead to the effectiveness of any organization. Keeping this in view, the job satisfaction of library personnel working in four university libraries is studied in order to understand the effectiveness of libraries.

5.2.1 Job Satisfaction Scale

The 100 test statements of the section II of the questionnaire booklet-1 “Job Satisfaction Scale” (Appendix I) are used to measure the job satisfaction of four university libraries. The

schedule is based on Minnesota Satisfaction Questionnaire (MSQ) for measuring job satisfaction. For the purpose of this study, long form of MSQ was used and tested in various organizations on different work situations. (MSQ, 1967). Azad (1978) used MSQ for measuring job satisfaction among para-professionals in public and technical services departments in university libraries. D’Elia (1979) also used MSQ for identifying the factors that are most highly related to job satisfaction among beginning librarians. Bajpai (1999) also used MSQ for identifying relationship among job involvement and job satisfaction among professionals in college and university libraries in Delhi.

Each item of MSQ scale refers to reinforce to the work environment. The respondent indicated how satisfied he is with present job by indicating his preference among five alternative responses (extremely satisfied =5, very satisfied=4, satisfied=3, less satisfied =2, not satisfied =1). 100 items have been factorised into 20 variables. Each variable consist of five items each already identified by the scale. Besides this a general satisfaction scale is computed based on 20 items taking one item from each variable (Appendix IV). These twenty variables are:

1. **Ability Utilisation:** This variable emphasises on the proper utilisation of human resource. Chances to do to work to the best of their abilities and skills.
2. **Achievement:** Achievements are a kind of reward. They take pride in doing their job well and worthwhile. Further, they get the feeling of attainment for doing the job.
3. **Activity:** Activity is related with being able to keep busy all the time. Keeping busy will help them to develop better and newer ways to do the job.
4. **Advancement:** This is related with promotions of the staff and getting really ahead of the job if found suitable.
5. **Authority:** This relates to how much chances they have to supervise and direct. Here they are asked how much chance they get to tell others what to do.
6. **Library Policies and Practices:** This relate to how polices and practices are administered and put into practice and how the staff is informed about these polices.

7. **Compensation:** It is related with salary and how much pay is given and is it comparable with other similar situations.
8. **Co-worker:** Inter-personnel relation among the library staff is the issue here like friendliness, co-operation of co-workers.
9. **Creativity:** This relates if the library professional is able to do things in a different manner and develop better ways and new methods of doing things.
10. **Independence:** Chances of the staff to work freely and alone without any interference.
11. **Moral values:** It relates to being able to do things without feeling morally wrong and which does not go against any religious feelings and one's own conscious.
12. **Recognition:** Getting the praise and recognition for doing a good job and getting full credit for the work done well.
13. **Responsibility:** Do the staff have the chance to be responsible for the planning, decision making process in the library? Is there freedom to use own judgement?
14. **Security:** Job security is one of the important variables of job satisfaction. Secure and permanence in the job leads to better satisfaction at the job.
15. **Social service:** Opportunities the job gives for chance to be of service to others by helping and doing small services for others.
16. **Social status:** The social status and position the job has in the community and chances of having contact with important people and being important in the society.
17. **Supervision- human relations:** This variable relates to Inter-personnel relations in relation to the boss. The way supervisor handles, backs up his men or takes care of complaints brought to him.
18. **Supervision- technical:** How much technical knowledge the supervisor has? The way he delegates power, provides help on hard problem and trains his men.
19. **Variety:** Is boredom of doing routine jobs taken care of? Is there a chance to do different things or something different everyday?
20. **Working conditions:** The working conditions like lighting, heating, ventilation and physical conditions surrounding the job are taken care of.

Besides this, a general satisfaction variable is included having 20 variables, one from each twenty variables mentioned above. The details of items on each variable are given in the appendix (IV)

5.2.2 Inter-Correlation among Job Satisfaction Variables

Inter-correlations among 20 variables along with general satisfaction variable were computed in order to see the relationships. The findings are presented in table no. 5.8 “Inter-Correlation and Mean score among Job Satisfaction”

Table no. 5.8 Inter-Correlation and Mean score among Job Satisfaction

Sl. No.	Variables	1	2	3	4	5	6	7	8	9	10	11	12	13
1	Ability Utilization	X												
2	Achievement	0.64**	X											
3	Activity	0.32**	0.37**	X										
4	Advancement	0.17	0.45**	0.32**	X									
5	Authority	0.73**	0.57**	0.41**	0.31**	X								
6	Company– Poli. & Practice	0.44**	0.60**	0.29**	0.45**	0.52**	X							
7	Compensation	0.33**	0.50**	0.29**	0.47**	0.36**	0.51**	X						
8	Co-Workers	0.61**	0.69**	0.34**	0.32**	0.52**	0.52**	0.36**	X					
9	Creativity	0.68**	0.66**	0.44**	0.40**	0.67**	0.53**	0.42**	0.54**	X				
10	Independence	0.71**	0.60**	0.29**	0.17	0.74**	0.37**	0.35**	0.54**	0.67**	X			
11	Moral values	0.67**	0.60**	0.44**	0.25*	0.61**	0.47**	0.21	0.62**	0.68**	0.75**	X		
12	Recognition	0.57**	0.74**	0.43**	0.52**	0.62**	0.57**	0.48**	0.67**	0.63**	0.62**	0.52**	X	
13	Responsibility	0.44**	0.42**	0.24*	0.24*	0.48**	0.41**	0.35**	0.55**	0.48**	0.41**	0.34**	0.51**	X
14	Security	0.53**	0.69**	0.22*	0.47**	0.45**	0.62**	0.62**	0.65**	0.44**	0.46**	0.43**	0.64**	0.42*
15	Social Service	0.37**	0.18	0.15	0.15	0.43**	0.24*	0.28*	0.22	0.19	0.34**	0.26*	0.28*	0.15
16	Social Status	0.66**	0.55**	0.25*	0.23*	0.66**	0.52**	0.37**	0.54**	0.59**	0.62**	0.47**	0.63**	0.44*
17	Supervision-Human Relat.	-0.09	-0.02	-0.02	-0.07	0.01	-0.02	0.02	-0.02	-0.03	0.01	-0.09	-0.05	-0.04
18	Supervision-Technical	0.63**	0.72**	0.41**	0.44**	0.52**	0.60**	0.44**	0.72**	0.59**	0.53**	0.68**	0.56**	0.39*
19	Variety	0.49**	0.47**	0.26*	0.15	0.50**	0.28*	0.21	0.37**	0.43**	0.49**	0.43**	0.39**	0.28*
20	Working Condition	0.45**	0.63**	0.43**	0.57**	0.56**	0.66**	0.55**	0.51**	0.58**	0.36**	0.45**	0.60**	0.41*
21	General Satisfaction	0.01	0.09	0.13	0.01	0.13	0.08	0.11	0.08	0.09	0.11	0.01	0.07	0.09
No. of Items		5	5	5	5	5	5	5	5	5	5	5	5	5

Mean	15.40	14.44	14.97	14.38	14.53	14.47	14.44	14.49	14.67	14.79	14.97	14.35	15.12
SD	5.65	2.92	5.65	3.81	2.74	2.90	2.79	2.99	2.81	3.13	2.79	2.72	4.95
RANK	3	17	7	18	14	16	17	15	13	9	7	19	6

Note: n = 78 and **< 0.01, *p< 0.05.

The table show very high and significant correlation among the 21 variables. Most of the relations are positively significant at <0.01 level of confidence. Supervision-human relation and general satisfaction are highly correlated with each other ($r = 0.98$). This shows that higher the person is supervision-human relations, higher the general satisfaction of the job will be. However, both the variables do not show any significant relation with any other variable. Mean scores indicate that general satisfaction is ranking first followed closely by supervision- human relations, social service and ability utilization respectively. Advancement and recognition are the variables ranking last on the mean scores. Rankings of all 21 variables based on mean scores are presented in the following table no. 5.9 “Mean score, SD and Rank among Job Satisfaction”

Table no. 5.9 Mean score, SD and Rank among Job Satisfaction

Sl. No.	Variables	Mean	SD	Rank
1	General Satisfaction	64.53	49.56	1
2	Supervision-Human Relations	20.67	48.54	2
3	Social Service	16.36	7.14	3
4	Ability Utilization	15.40	5.65	4
5	Variety	15.19	4.52	5
6	Responsibility	15.12	4.95	6
7	Moral values	14.97	2.79	7
8	Activity	14.97	5.65	7
9	Social Status	14.82	2.85	8
10	Independence	14.79	3.13	9
11	Security	14.72	2.90	10
12	Working Conditions	14.69	3.23	11
13	Supervision- Technical	14.68	3.08	12
14	Creativity	14.67	2.81	13

15	Authority	14.53	2.74	14
16	Co-Workers	14.49	2.99	15
17	Library- Policy & Practice	14.47	2.90	16
18	Compensation	14.44	2.79	17
19	Achievement	14.44	2.92	17
20	Advancement	14.38	3.81	18
21	Recognition	14.35	2.72	19

It is of importance to see if organizational climate factors have any relation with variables of job satisfaction. The correlations between the two have been computed and presented in the table no: 5.10 “correlations between job satisfaction and organizational climate” below. Here again like leadership styles it the structure factor which is having significant relation with most of the job satisfaction variables. Activity, advancement authority, variety, supervision–human relations and general satisfaction are only variables not having any type of relation with structure. Reward & warmth is positively significant with ability utilisation, working conditions and supervision–technical. As usual, the two weak organizational climate factors namely working conditions and inter-personnel relation do not influence any variable of job satisfaction. So we can again safely conclude that it the structure and reward& warmth that influenced majority of variables of job satisfaction thereby indicating that people are more satisfied in the structured organization where there is opportunity for reward & warmth as compared to other organizations lacking this factors.

Table no. 5.10 Correlations between Job satisfaction and Organizational Climate

Job satisfaction	Organizational Climate			
	Structure	Working Condition	Reward and Warmth	Inter-Personnel Relation
Ability Utilization	0.25*	-0.16	0.03**	0.08

Achievement	0.30**	0.03	0.34	0.19
Activity	0.16	0.12	0.20	0.10
Advancement	0.19	0.04	0.20	0.09
Authority	0.19	-0.08	0.07*	0.03
Library–Pol. & Pra.	0.24*	0.00	0.15	0.01
Compensation	0.32**	0.17	0.19	0.12
Co-Workers	0.36**	-0.05	0.22	0.20
Creativity	0.26**	-0.03	0.32	0.08
Independence	0.24**	-0.06	0.08	-0.07
Moral values	0.25*	-0.01	0.15	-0.07
Recognition	0.37**	-0.01	0.27	0.10
Responsibility	0.32**	-0.12	0.20	0.06
Security	0.36**	0.07	0.11	0.13
Social Service	0.20	0.23*	0.07	0.05
Social Status	0.21	0.01	0.14	0.02
Supervision-HR	-0.02	0.11	-0.06	-0.01
Supervision-Tec.	0.34**	-0.04	0.25*	0.10
Variety	0.14	-0.04	-0.06	-0.02
Working Condition	0.33**	0.02	0.24*	0.07
General Satis.	0.03	0.11	-0.02	-0.01

Note: n = 78 and **< 0.01,*p< 0.05.

5.2.3 Job Satisfaction versus University Libraries

Do the jobs satisfactions levels vary in relation to different organizational climates and do it make a difference in favourable and unfavourable organisational climates? To answer these questions, ANOVA was computed among job satisfaction variables and four university libraries the results are presented in the table no. 5.11 “Job Satisfaction versus University Libraries (ANOVA)”

Table no. 5.11 Job Satisfaction versus University Libraries (ANOVA)

Sl. no.	Job Satisfaction & Rank	University Libraries					df 3/74
		DUL (n=48)	BUETL (n=18)	NSUL (n=5)	IUBL (n=7)	Total (n=78)	F Ratios
1	Ability Utilization	14.83	15.56	17.00	17.71	15.40	2.34

	RANK	4	3	2	1	-	-
2	Achievement	13.92	14.78	15.60	16.29	14.44	2.04
	RANK	4	3	2	1	-	-
3	Activity	14.71	14.00	16.80	18.00	14.97	1.06
	RANK	3	4	2	1	-	-
4	Advancement	14.15	13.50	17.00	16.43	14.38	1.90
	RANK	3	4	1	2	-	-
5	Authority	14.04	14.89	16.00	15.86	14.53	1.68
	RANK	4	3	1	2	-	-
6	Library-Poli. & Practice	14.17	14.22	15.20	16.71	14.47	1.77
	RANK	4	3	2	1	-	-
7	Compensation	14.54	13.06	15.20	16.71	14.44	3.15*
	RANK	3	4	2	1	-	-
8	Co-Workers	13.88	15.06	16.40	15.86	14.49	2.15
	RANK	4	3	1	2	-	-
9	Creativity	13.98	14.78	17.00	17.43	14.67	5.07*
	RANK	4	3	2	1	-	-
10	Independence	14.50	14.61	16.20	16.29	14.79	1.03
	RANK	4	3	2	1	-	-
11	Moral values	14.35	15.61	16.20	16.71	14.97	2.46
	RANK	4	3	2	1	-	-
12	Recognition	14.15	14.28	16.60	14.29	14.35	1.25
	RANK	4	3	1	2	-	-
13	Responsibility	14.83	14.89	16.20	16.86	15.12	.42
	RANK	4	3	2	1	-	-
14	Security	14.40	14.44	16.00	16.71	14.72	1.74
	RANK	4	3	2	1	-	-
15	Social Service	15.65	17.39	17.40	17.86	16.36	.41
	RANK	4	3	2	1	-	-
16	Social Status	14.52	14.94	17.40	14.71	14.82	1.60
	RANK	4	2	1	3	-	-
17	Supervision-Human Relations	23.96	14.67	15.00	17.57	20.67	.19
	RANK	4	3	2	1	-	-
18	Supervision-Technical	13.92	15.17	14.00	19.14	14.68	7.70*
	RANK	4	2	3	1	-	-
19	Variety	14.54	16.56	16.60	15.14	15.19	1.04
	RANK	4	2	1	3	-	-
20	Working Condition	13.79	15.17	16.60	18.29	14.69	5.74*
	RANK	4	3	2	1	-	-
21	General Satisfaction	67.27	56.72	64.20	66.00	64.53	.19
	RANK	1	4	3	2	-	-

Note: DUL= University of Dhaka Library, BUETL= Bangladesh University of Engineering & Technology Library, NUSL= North-South University Library, IUBL=Independent University of Bangladesh Library.

The results shown in the table are having consistency with the earlier results. It is very clear that IUBL ranks first on 14 variables, second on five variables and third on 2 variables. NSUL has first ranking on six variables, second on 13 variables and third on two variables. BUETL is having maximum third rank on 14 variables followed by fourth ranking on four

variables. DUL is ranking fourth on 17 variables and third on three variables. Only surprisingly, DUL is having only one first rank on general satisfaction scale. So we can say that IUBL is ranking highest followed by NSUL, BUETL and DUL respectively in that order. F ratios are significant for only four variables namely compensation, creativity, supervision technical and working conditions. This shows that only these four variables make a difference in four different organizations. The main purpose of this study is to study the effectiveness of four university libraries. Job satisfaction of the library staff has been identified as one of the important variable for the overall effectiveness of the libraries. Is there any relation between organizational climate of the library and job satisfaction of the staff? In order to ascertain this, general hypothesis is put forward:

Hypothesis # H₂: The favourable the organizational climate is, greater is the satisfaction of the library professional on the job whereas, the less favourable the organizational climate is, greater is the dissatisfaction of the library professional on the job.

Organizational climate of the four libraries have been already identified. The most favourable organizational climate is in BUETL followed by IUBL and NSUL respectively. Least favourable organization climate is in DUL. ANOVA results of table no.5.12 “Job Satisfaction versus University Libraries (ANOVA)” are simplified and presented according to rank order in the following table no 5.10 “Ratings of University Libraries on Job Satisfaction”

Table No: 5.12 Ratings of University Libraries on Job Satisfaction

Sl. no.	Job Satisfaction	University Libraries			
		High to Low			
1	Ability Utilization	IUBL	NSUL	BUETL	DUL
2	Achievement	IUBL	NSUL	BUETL	DUL

3	Activity	IUBL	NSUL	DUL	BUETL
4	Advancement	NSUL	IUBL	DUL	BUETL
5	Authority	NSUL	IUBL	BUETL	DUL
6	Library–Policy & Practice	IUBL	NSUL	BUETL	DUL
7	Compensation	IUBL	NSUL	DUL	BUETL
8	Co-Workers	NSUL	IUBL	BUETL	DUL
9	Creativity	IUBL	NSUL	BUETL	DUL
10	Independence	IUBL	NSUL	BUETL	DUL
11	Moral values	IUBL	NSUL	BUETL	DUL
12	Recognition	NSUL	IUBL	BUETL	DUL
13	Responsibility	IUBL	NSUL	BUETL	DUL
14	Security	IUBL	NSUL	BUETL	DUL
15	Social Service	IUBL	NSUL	BUETL	DUL
16	Social Status	NSUL	BUETL	IUBL	DUL
17	Supervision-Human Relations	IUBL	NSUL	BUETL	DUL
18	Supervision-Technical	IUBL	BUETL	NSUL	DUL
19	Variety	NSUL	BUETL	IUBL	DUL
20	Working Condition	IUBL	NSUL	BUETL	DUL
21	General Satisfaction	DUL	IUBL	NSUL	BUETL

The above table clearly shows that IUBL library is high on job satisfaction followed closely by NSUL and BUETL. DUL is lowest on job satisfaction except on last variable namely “general satisfaction” where is having highest ranking. To see the difference between private universities and public libraries on job satisfaction, again ANOVA was computed between private libraries and public libraries and results are presented in table no. 5.13 “Job Satisfaction versus Public and Private Universities (ANOVA)”

Table no. 5.13 Job Satisfaction versus Public and Private Universities (ANOVA)

Sl. no.	Job Satisfaction & Rank	Mean scores			df 1/76
		PUUL (n=66)	PRUL (n=12)	Total (n=78)	F Ratios
1	Ability Utilization	15.03	17.42	15.40	6.24*
	RANK	2	1	-	-
2	Achievement	14.15	16.00	14.44	4.67*

	RANK	2	1	-	-
3	Activity	14.52	17.50	14.97	2.90
	RANK	2	1	-	-
4	Advancement	13.97	16.67	14.38	5.36*
	RANK	2	1	-	-
5	Authority	14.27	15.92	14.53	3.79
	RANK	2	1	-	-
6	Library –Poli. & Practice	14.18	16.08	14.47	4.55*
	RANK	2	1	-	-
7	Compensation	14.14	16.08	14.44	4.74*
	RANK	2	1	-	-
8	Co-Workers	14.20	16.08	14.49	4.20*
	RANK	2	1	-	-
9	Creativity	14.20	17.25	14.67	14.03*
	RANK	2	1	-	-
10	Independence	14.53	16.25	14.79	3.16
	RANK	2	1	-	-
11	Moral values	14.70	16.50	14.97	4.43*
	RANK	2	1	-	-
12	Recognition	14.18	15.25	14.35	1.58
	RANK	2	1	-	-
13	Responsibility	14.85	16.58	15.12	1.25
	RANK	2	1	-	-
14	Security	14.41	16.42	14.72	5.14*
	RANK	2	1	-	-
15	Social Service	16.12	17.67	16.36	.47
	RANK	2	1	-	-
16	Social Status	14.64	15.83	14.82	1.82
	RANK	2	1	-	-
17	Supervision-Human Relation.	21.42	16.50	20.67	.10
	RANK	1	2	-	-
18	Supervision-Technical	14.26	17.00	14.69	8.87*
	RANK	2	1	-	-
19	Variety	15.09	15.75	14.69	.21
	RANK	2	1	-	-
20	Working Condition	14.17	17.54	14.69	13.17*
	RANK	2	1	-	-
21	General Satisfaction	64.39	65.25	64.53	.00
	RANK	2	1	-	-

Note: PUUL=Public University Libraries and PRUL=Private University Libraries.

The table clearly shows that except for supervision-human relations, the private university libraries rank first in all the job satisfaction variables. F ratios are significant on eleven variables. This indicated that ability utilisation, achievements, advancement, library polices and practices, compensation, co-workers, creativity, moral values, security, supervision technical and working conditions are better in private university than public university. Thus library personnel working in IUBL, NSUL and BUETL are satisfied with

their jobs in that order and library personnel working in DUL are partially dissatisfied. DUL library ranks highest on general satisfaction.

Therefore we can accept the hypothesis partially.

5.3.0 Background Variables

Socio-economic or background conditions vary from one environment to another. Differences may occur due to languages, religion, values, attitudes, beliefs, education, social organization, technology inputs, wealth, politics, and law. Many studies have been conducted which show the impact of culture socio-economic or background variables on leadership styles, and job satisfaction. Saraf (1995) reported that age, designation, promotions and working in other organizations do influence the choice of leadership styles in academic libraries in India. Participatory administrative style or even a laissez-faire style is conducive to job satisfaction is reported by D'Elia (1979). He further suggests that an assessment of job satisfaction among the personnel of a library would be a useful tool for evaluating the performance of library administrators. Lynch and Verdin (1983, 1987) tested seven hypotheses based on the relationship between background variables and job satisfaction of librarians. The background variables taken into consideration are age, sex, occupational group, tenure, supervisory level, career commitment and library department. The study conducted was the replica of the study conducted by the authors almost fifteen years before to identify similar relationships. It is reported that job satisfaction varies from one occupational group to another and from one library unit to another. Leckie and Brett (1997) besides, studying effect on factors like participation and status on job satisfaction also examined the demographic characteristics with regard to satisfaction. Salary, experience, tenure,

sabbaticals were some of the demographic variables found to have relationship with job satisfaction.

5.3.1 Background Variable Scale

In the light of above data, it is reasonable to expect that choice of leadership behaviour styles and job satisfaction will be influenced by the background variables in order to ascertain the ultimate performance of a library leader, which will be one of the main factors for ultimate effectiveness of the library, background variables need to be studied. For the purpose of this study, twelve variables of the questionnaire booklet-1 of section IV “background information: personal data” (Appendix I) were taken into consideration. These variables are present age, joining age, sex, marital status, designation, academic and professional qualifications, number of persons reporting, number of years in present organization and position, promotions and number of other organizations worked in. These variables are measured in different scale points depending upon the type of variable. Details regarding background variables are presented in the following tables;

Present and Joining Age

Present age and age at the time of joining profession is entered in the table no 5.14 “Present and Joining Age”

Table no. 5.14 Present and Joining Age

Age Group in Years	Present Age		Joining Age	
	Percentage (%)	Cumulative %	Percentage (%)	Cumulative %
20-25	2.56	2.56	30.77	30.77
26-30	5.13	7.69	55.13	85.90
31-35	17.95	25.64	8.97	94.87
36-40	10.26	35.90	5.13	100.00
41-45	16.67	52.56	-	-
46-50	34.62	87.18	-	-
51-55	7.69	94.87	-	-
56-60	3.85	98.72	-	-
61 and above	1.28	100.00	-	-

Note: n=78

It is very clear from the above table that majority (55.13%) of respondents enter the profession in the age group of 26-30 years of age whereas 94.87% of respondents are in the profession by the time they are 35 of years of age. Half of the respondents (52.56%) are up to the age of 45 years. Maximum respondents are in the age group of 46-50 years. A very small proportion of the respondents who are also above retirement age also (1.28%)

Gender and Marital status

Gender and marital status of the respondents are presented in table no. 5.15 “Gender and Marital Status”

Table no. 5.15 Gender and Marital Status

Gender			Marital Status		
Sex	Frequency	Percentage	Status	Frequency	Percentage
Male	58	74.36	Married	74	94.87
Female	20	25.64	Unmarried	4	5.13
Total	78	100	Total	78	100

The table shows that majority (74.36%) of the respondents are male and every one except four of them are married (94.87 %). Thus, we can say majority of the respondents are married male

member as only 25.64% of them are females and 5.13% of them are not married. These two variables are not supposed to show much impact and effect on other variables.

Qualifications

The qualifications have been categorised into two type's namely academic and professional qualifications. Professional qualifications are the qualifications the respondents have acquired in the field of library and information science. Certificate course and diploma are given by the some recognised institutes which are affiliated with National University. However, degrees at graduation and above graduation level are provided by University of Dhaka and University of Rajshahi. These qualifications of the respondents have been entered in the table no. 5.16 "Academic and Professional Qualifications of Respondents":

Table no. 5.16 Academic and Professional Qualifications of Respondents

Degrees	Academic Qualifications			Professional Qualifications		
	Frequency	%	Cu. %	Frequency	%	Cu. %
Certificate course	-	-	-	23	29.5	29.5
Diploma (LIS)	-	-	-	22	28.2	57.7
B.A./ B.Sc / B.Com /B.A (Hons.) in LIS	33	42.3	42.3	1	1.3	59.0
M A/M Sc/ M Com M.A. (LIS)	37	47.4	89.7	29	37.2	96.2
M. Phil.	2	2.6	92.3	3	3.8	100
Any Other	6	7.7	100	-	-	-

The above table clearly indicates that majority of the respondents (89.75%) are either having degree at graduation or masters level in any academic discipline. Only two respondents reported having M. Phil degree in academic discipline. Six reported having other degrees like in management, information technology and computer applications. Regarding

professional qualifications, it is surprising to note that 57.7% of the respondents are having professional qualifications only at either certificate level or diploma level. Only 37.2% of them are having master degree in Library and information science. Only three respondents are having M. Phil degree in library and information science and one respondent is having degree B A in library and information science.

Designations and Promotions

What are the designations of the library professional and how many promotions they get while being on the job? To answer these questions, respondents were asked about the designations and how many promotions they have received and the data is presented in table no. 5.17 “Designations and Promotions of Respondents”

Table no. 5.17 Designation and Promotions of Respondents

Designation				Promotions			
Designation	Frequency	%	Cu. %	Promotions (Number)	Frequency	%	Cu. %
Librarian	1	1.28	1.28	0	13	16.67	16.67
Deputy librarian	6	7.69	8.97	1	26	33.33	50.00
Asst. Librarian	16	20.51	29.49	2	25	32.05	82.05
Junior Librarian	4	5.13	34.62	3	11	14.10	96.15
Library Assistant	11	14.10	48.72	4	2	2.56	98.72
Library Attendant	2	2.56	51.28	5	1	1.28	100.00
Others	38	48.72	100.00	-	-	-	-
Total	78	100	-	Total	78	100	-

Regarding the designations, it is clear that only one respondent is having librarian as designations. Approximately 28% of them are having either deputy librarian or assistant librarian. Majority of them (48.72%) are clubbed together under “Others”. These are named as cataloguers, library officers and section officers of the section of the library. All these designations have professional qualifications as the essential requirement. Regarding the

promotions, the table reveals that 65.38% of them have got either one or two promotions while 17.94% of them got promotions ranging from three to five years and 16.67% of them were never promoted. Thus, we can say that people do get promoted and maximum people get one or two promotions in their working span.

Subordinate

A leader is one under whom at least two persons are directly reporting. Since Study has identified the leadership style of the boss in order to ascertain the total effectiveness of the library. It was of interest to know whom many persons are directly reporting to the respondents to be qualified as leaders. Numbers of subordinates reporting to respondents are entered in the table no.5.18 “Number of Subordinates Reporting to Respondents”

Table no. 5.18 Number of Subordinates Reporting to Respondents

Subordinates Reporting (Number)	Frequency	Percentage	Cumulative Percentage
0 to 5	67	85.89	85.89
6 to 10	6	7.69	93.58
11 to 15	1	1.28	94.86
16 to 20	0	0.00	94.86
21 to 25	2	2.56	97.42
26 and above	2	2.56	99.99
Total	78	99.99	-

According to the above table subordinates reporting ranging from nil to five. Only 6.4% of them say that more than ten persons are reporting to them directly. Since only one library is having a librarian while others are being looked by in charge librarians.

Tenure

Tenure of the respondents have been categorised into two namely tenure in the present position and tenure in the present organisations in order to find whether they have any impact on other variable. The data thus, collected is presented in the following table no.5.19 “Tenure in Present Organisation and Position”.

Table no. 5.19 Tenure in Present Organization and Present Position

Tenure in Present Organization				Tenure in Present Position		
Year	Frequency	Percentage	Cu. %	Frequency	Percentage	Cu. %
1 to 5	19	24.36	24.36	49	62.82	62.82
6 to 10	11	14.10	38.46	25	32.05	94.87
11 to 15	17	21.79	60.26	4	5.13	100
16 to 20	16	20.51	80.77	-	-	-
21 to 25	7	8.97	89.74	-	-	-
26 to 30	5	6.41	96.15	-	-	-
31 more	3	3.85	100	-	-	-
Total	78	100	-	78	100	-

The table shows that majority of respondents work in the same organization for more than (56.40%) five to twenty years. Only eight of them report that they are working in the same organisation for more than 26 years. This indicates that mobility of respondents is very low and they do not move from one organization to another very often. Regarding number of years in the same position, 32.05% of them report that they are in the same position from six to ten years whereas, 62.82% of respondents are in the same position only for one to five years. Only marginal respondents (5.13%) report that they are in the same position for more than eleven years.

Number of other organizations worked

The table no. 5.20 “Number of other organizations respondents worked” shows number of other organizations the respondents worked in .The table is presented below:

Table no. 5.20 Number of other organizations respondents worked

Other Organizations (Number)	Frequency	Percentage	Cumulative %
1	17	21.8	21.8
2	8	10.3	32.1
3	2	2.6	34.7
4	1	1.28	36.0
5	2	2.6	38.6
Nil	48	61.5	100
Total	78	99.99	-

It very clearly shows that majority of respondents have not worked in any other organizations. (61.5%). Only 27.78% of respondents report that they moved from two to five organizations whereas 21.8% of them have shifted from one organization. This is in consistent with the information that most of the respondents work in the same organization and they hardly change their organization.

5.3.2 Inter-Correlation among Background Variables:

Inter-correlations among the background variables are presented in table no.5.21

“Inter-correlations among Background Variables” below:

Table no. 5.21 Inter-Correlation among Background Variables

Background Variables	1	2	3	4	5	6	7	8	9	10	11	12
Present Age	x											
Joining Age	0.26*	x										
Sex	-0.21	0.20	x									
Marital Status	-0.23*	-0.04	-0.14	x								
Designation	-0.18	-0.09	0.01	-0.18	x							
Academic Qualifications	-0.08	-0.07	0.18	-0.07	-0.05	x						
Professional Qualifications	0.16	-0.17	-0.11	-0.16	0.34**	0.18	x					
No. of Subordinates	0.25*	0.08	-0.12	-0.02	-0.41**	-0.05	-0.23*	x				
Tenure in present organization	0.75**	0.02	-0.15	-0.29**	-0.33**	0.12	0.21	0.33**	x			
Tenure in present position	0.40**	0.09	-0.11	-0.19	-0.06	0.32**	0.05	0.02	0.37**	x		
No. of Promotions	0.68**	0.02	-0.17	-0.12	-0.37**	-0.24*	-0.01	0.28*	0.67	0.16	x	
No. of other organization worked	0.00	0.15	-0.02	0.17	-0.16	-0.08	-0.31**	0.12	-0.30	-0.09	-0.05	x

Note: n = 78 and **< 0.01, *p< 0.05. 1=Present Age, 2=Joining Age, 3=Sex, 4=Marital Status, 5= Designation, 6= Academic Qualifications, 7 = Professional Qualifications, 8=No. of Subordinates, 9 =Tenure in present organization, 10= Tenure in present position, 11=No. of Promotions, 12 =No. of other organization worked.

The table reveals that joining age, sex and marital status shows no significant relationship with any variable. Present age is having positive significant relationship with number of promotions, tenure in present organization, tenure in present position and number of subordinates working under the respondents. That indicated the higher the age, more the time is spent in the same organization and same position and more the number of subordinates are working under him. This also shows that number of promotions received is higher if the age is more. Qualifications have not shown any significant relationship with many variables except professional qualifications are positively related with designations. This means that higher the professional qualifications, higher the designation likely the respondent is going to have. Academic qualifications are negatively related with number of promotions. This shows that higher academic qualifications do not lead to promotions. Designations have negative correlations with number of subordinates' directly reporting, tenure in present position and number of promotions. This indicates that people do not reach to the top from the same

organization. They directly come from other organizations .It is very difficult for any one to start from lowest and reach to the top in the hierarchical structure. Tenure in the present position having positive significant relation with number of promotions indicates that the respondent gets more promotions if he or she sticks to one organization. Tenure in present organization is also having positive relation with tenure in present position and negative relation with number of other organization he or she has worked. Therefore, we can summarise that except joining age, sex and marital status, all other background variables show significant relations ($P < .05$ and beyond) a with one or more than one background variables.

5.3.3 Background Variables and Leadership Behaviour Styles

It is reasonable to postulate that different leadership behaviour styles of librarians will be related with the background variables of the respondents. In the light of discussion above about the leadership behaviour styles and background variables, a null hypothesis is put forth:

Hypothesis # H_3 : Age, qualifications, designations, tenure in present position, tenure in present organization, number of promotions and number of other organizations worked will not determine and influence the choice of a particular leadership style.

In order to test the hypothesis, co-relation between background variables and leadership styles is computed and presented in table no. 5.22 “Correlations of Background Variables and Leadership Behaviour Styles”

Table no. 5.22 Correlations of Background Variables and Leadership Behaviour Styles

Background Variables	Leadership Behaviour Styles				
	Participative	Bureaucratic	Nurturant	Authoritarian	Task Oriented
Present Age	-0.26*	-0.18	-0.14	-0.03	0.01
Joining Age	0.05	0.03	0.11	0.03	-0.01
Designation	0.04	-0.13	-0.02	0.09	-0.02
Academic Qualifications	-0.18	-0.16	-0.19	-0.23*	-0.40**
Professional Qualifications	-0.35**	-0.32**	-0.44**	-0.05	-0.08
No. of Subordinates	-0.01	0.13	0.01	0.03	0.04
Tenure in Present Organization	-0.42**	-0.30**	-0.30**	-0.13	-0.10
Tenure in Present Position	-0.28*	-0.29*	-0.26*	-0.32**	-0.28*
Number of Promotions	-0.30**	-0.13	-0.23*	-0.10	0.06
No. of other Organization Worked	0.19	-0.04	0.15	0.00	-0.23*

Note: n=78 and **< 0.01, *p< 0.05.

Almost all the leadership behaviour styles are having significant relation with one or more variables. Participative leadership style is having negative significance with present age, professional qualifications, tenure in present position, tenure in present organization and number of promotions. We can say librarians do not endorse participative leadership style when they become older, stay in the same position and organization longer. Further, higher the number of promotions, lesser he endorses the participative style of management. Bureaucratic style of leadership is also negatively related with professional qualifications and tenure in present position and organization. Academic qualifications are influencing authoritarian style negatively. Even, tenure in present position is having negative influence on authoritarian style. Task oriented style being the least endorsed style is negatively influenced by tenure in present position. Joining age and designations do not seem to influence any leadership style. We can safely conclude that background variables do influence and determine the choice of leadership behaviour styles but which background variables will affect which leadership styles in which situation. It is difficult to arrive at a general

conclusion because situational differences in background variables will differ. Saraf (1995) has shown in her study that designations and number of subordinates are negatively correlated with participative and nurturant style of leadership whereas, present study shown no influence of designation and number of subordinates on any leadership styles. Keeping these environmental and situational factors in view, we can safely conclude that some of the background variables namely age, qualifications, designations, tenure in present position , tenure in present organization, number of promotions and number of other organizations worked will not determine and influence the choice of a particular leadership style. Therefore, the hypothesis is rejected.

5.3.4 Background variables and Job Satisfaction

Unless the human resources of the library are fully utilised, libraries cannot accomplish the objective which they aim to achieve at. This is more important for a service organization like library. Does the work environment and background variables of respondents have anything to do with their job satisfaction? Various studies have been conducted to understand relation between job satisfaction and socio-economic variables like age, sex, occupational groups, tenure, supervisory levels, career commitment, faculty status, participation, salary and marital status. (Lynch and Verdin, 1983, 1987; Horenstein, 1993; Leckie and Brett, 1997; Bajpai, 1999) and all the studies arrive at different conclusions. Keeping in view the above discussion and assuming that background variables of persons will effect the job satisfaction a null hypothesis is forwarded:

Hypothesis # H₄: There is no significant difference between job satisfaction and background variables namely age, qualifications, designations, tenure in present position,

tenure in present organization, number of promotions and number of other organizations worked.

In order to test the hypothesis, co-relation between background variables and job satisfaction computed and presented in table no. 5.23 “Correlations of Job Satisfaction and Background Variables” in the next page:

Table no. 5.23 Correlations of Job Satisfaction and Background Variables

Job Satisfaction	Background Variables									
	PA	J A	Des	AQ	PQ	SOB	TPO	TPP	PROM	NOW
Ability Utilization	0	-0.04	-0.29**	0.02	-0.32**	0.28*	-0.03	-0.05	0.07	0.36*
Achievement	-0.1	-0.1	-0.23*	0.03	-0.24*	0.16	-0.11	-0.19	-0.03	0.24*
Activity	0.14	0.2	-0.27*	-0.12	-0.25*	0.29**	0.18	0.05	0.15	0.08
Advancement	-0.12	-0.02	0.04	-0.09	0.01	-0.07	-0.14	-0.06	-0.2	0.07
Authority	-0.07	0.05	-0.08	-0.11	-0.21	0.16	-0.17	-0.11	-0.02	0.31**
Library–Poli. & Pra.	-0.23*	-0.13	-0.13	-0.07	-0.21	-0.07	-0.21	-0.29**	-0.11	0.17
Compensation	-0.02	-0.2	-0.14	-0.09	-0.11	-0.01	0.01	-0.21	0.04	0.04
Co-Workers	-0.16	0	-0.22	-0.04	-0.41*	0.18	-0.18	-0.07	-0.15	0.17
Creativity	-0.17	-0.07	-0.30**	-0.11	-0.33*	0.19	-0.16	-0.19	-0.01	0.34**
Independence	-0.1	-0.07	-0.19	-0.23*	-0.29*	0.28*	-0.12	-0.2	0.06	0.25*
Moral values	-0.11	0.03	-0.22	-0.07	-0.28*	0.15	-0.12	-0.07	0	0.2
Recognition	-0.06	0.04	-0.13	-0.18	-0.25*	0.16	-0.14	-0.25*	-0.05	0.2
Responsibility	-0.24*	0.05	-0.01	-0.05	-0.27*	0.1	-0.24*	-0.19	-0.16	0.15
Security	-0.1	-0.1	-0.17	-0.02	-0.26*	0.14	-0.19	-0.18	-0.17	0.26*
Social Service	-0.02	-0.14	0	0.14	-0.01	-0.02	-0.07	-0.12	-0.06	0.05
Social Status	-0.13	-0.18	-0.07	-0.16	-0.23*	0.16	-0.12	-0.15	0	0.2
Supervision-HR.	0.07	0.01	0.09	-0.1	-0.03	-0.03	0.05	0.08	0.05	-0.06
Supervision-Tec.	-0.18	0	-0.27*	0	-0.31**	0.14	-0.2	-0.12	-0.13	0.17
Variety	0.12	-0.09	-0.30**	-0.11	-0.37**	0.23*	-0.09	0.11	0.15	0.33**
Working Condition	-0.25*	0	-0.11	-0.03	-0.21	-0.02	-0.28*	-0.19	-0.28**	0.28*
General Satisfaction	0.05	0.03	0.05	-0.12	-0.08	0.02	0.04	0.06	0.05	-0.02

Note: n=78 and **< 0.01, *p< 0.05. PA= Present Age, JA= Joining Age, Des= Designation, AQ=Academic Qualifications, PQ= Professional Qualifications, SOB= No. of Subordinates, TPO= Tenure in present organization, TPP= Tenure in present position, TROM= No. of Promotions, NOW= No. of other organization worked

The above table clearly indicates that professional qualifications influence maximum number of job satisfaction variables negatively. Ability utilization, achievement, creativity, variety and technical supervision are some of them whereas, authority, human relation supervision is some of the variables not effected by professional qualifications. Number of other organization worked is having positive significant relation with ability utilization,

achievement, authority, creativity, independence, responsibility, variety and working conditions. A person who has worked in more than one organization seems to be more satisfied on the job. Ability utilization, activity, independence are having positive influence on number of subordinates working directly under the leader. Joining and academic qualifications are having no or marginal influence on job satisfaction. Five variables of job satisfaction namely ability utilization, achievement, activity, creativity, variety and technical supervision are influenced negatively by designation of a person. This means that higher the position, lower they are on these five variables of job satisfaction. Promotions is also not significantly related with any variable except with working conditions ($r = -0.28$). Tenures in present position and present organizations marginal influence few variables negatively. These are recognition, responsibility and working condition. Surprisingly general satisfaction variable shows no relation with any background variable sometimes the differences are intriguing. D'Elia (1979) also studied job satisfaction among beginning librarians using the same scale (MSQ) to identify factors related highly with job satisfaction. He reported there is no difference in the degree of job satisfaction experienced by male and female librarians. This result contradicts the conclusions given by Wabha (1975). No meaningful difference in the degree of job satisfaction experienced by persons working in different types of libraries. Therefore, we can safely conclude that job satisfaction mainly ability utilization, achievement, activity, technical supervision and working conditions are associated with background variables like designations, professional qualifications, number of subordinates and number of other organizations worked in. Therefore, hypothesis is rejected.

5.4 Conclusion

This chapter also explores the relationship among leadership styles, job satisfaction of library professionals with background variables and favourable and unfavourable organizational climates. A total of 78 library professionals (male=58, females=20) formed the population of the study. Maximum respondents were in the age group of 45-50 years. Majority of them have either bachelors or master's degree in academic discipline but only few of them are having masters in library and information science (37.2%). None of them have Ph. D but three of them have M. Phil degree. Only one university library is headed by librarian and others have only in charge or deputy librarians looking after. Only 29.49% of them are in officer cadre and rest on working as junior librarians, library assistants etc. Majority of them are promoted once or twice in the profession and have upto five persons reporting to them. Frequency of shifting from one organization to another is very low. About 80% of them stay in the same organization from 1-20 years. Since majority of them get one or two promotions only, tenure in the present position is high, 94.87% of them have spent from 1-10 years in the same position. Naturally working in other organizations is very low.

Factorisation of 50 items of leadership styles converged into 5 variables of leadership styles. These are named as Participative, Bureaucratic, Nurturant, Authoritarian and Task oriented. The inter-correlations show significant positive relation among each other. Mean score rank bureaucratic leadership style as the most favourable style followed by participative and authoritarian style respectively. The least favourable styles of leadership are endorsed by librarians are nurturant and task oriented styles. The factor 'structure' of organizational climate shows high positive significant with all leadership styles except task oriented. Bureaucratic style is significantly related with reward & warmth also. This clearly indicates that structure and reward & warmth are related with bureaucratic, participative, nurturant and

authoritarian styles of leadership. ANOVA result with four university libraries show that Independent University of Bangladesh library is high on three people oriented leadership styles followed closely by Bangladesh University of Engineering and Technology Library whereas; University of Dhaka Library is high on authoritarian leadership style. So we can conclude that University of Dhaka Library having unfavourable organizational climate endorse more authoritarian leadership style whereas Independent University of Bangladesh library and Bangladesh University of Engineering and Technology Library with factorable organizational climate endorse more participative, bureaucratic and nurturant styles. All leadership styles are showing relationship with one or more background variables. Older people are more authoritarian than participative.

Hundred items of long form of Minnesota Satisfaction questionnaire was used for measuring job satisfaction of library professionals working in four university libraries. These are pre factorised into twenty variables of job satisfaction. These are ability utilisation, achievement, activity, advancement, authority, library policies and practices, compensation, co-worker, creativity, independence, moral values, recognition, responsibility, security, social service, social status, supervision–human relations, supervision-technical, variety and working conditions. Besides, a general satisfaction scale is added which consisting of twenty variables, one each from twenty variables. Inter correlations are significant among 21 variable of job satisfaction variables. Mean scores suggest that general satisfaction tops the list of satisfaction variables followed by supervision–human, social service, ability utilisation and variety respectively. Structure variable of organizational climate shows strong significance with achievement, recognition, supervision and working conditions. Other three variables do not show any significant relationship with any job satisfaction variable ANOVA results of

these variables with university libraries show the rankings of each university libraries on each variable. Results clearly show that Independent University of Bangladesh library is high on 14 variables and North-South University library is high on 6 variables. University of Dhaka Library having the least favourable organizational climate is low on 17 variables but surprisingly it has the first rank on general satisfaction variable. Bangladesh University of Engineering and Technology Library ranks third on most of the variables. The results are mixed. Favourable and unfavourable organizational climates do influence the job satisfaction of library professional. Therefore it is concluded that library professional working in Independent University of Bangladesh library, North-South University library and Bangladesh University of Engineering and Technology Library are satisfied whereas, professional working in University of Dhaka Library. To see the difference between private and public university libraries, job satisfaction levels are very high in public university libraries as compared to private university with only exception of supervision of human relations. This is because these public university libraries are having very less professional staff as compared to private university libraries. Further, job satisfaction levels are influenced by professionals' qualifications negatively. This is because majority of them are not highly professionally qualified. Working in more than one organization makes them more satisfied towards job. Ability utilisation, achievement, activity, creativity, variety and technical supervision are influenced negatively by designation of the person. This shows that people are low on these six variables if they have lower designations.

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CHAPTER 6

USER SATISFACTION AND LIBRARY EFFECTIVENESS

6.0 User Satisfaction

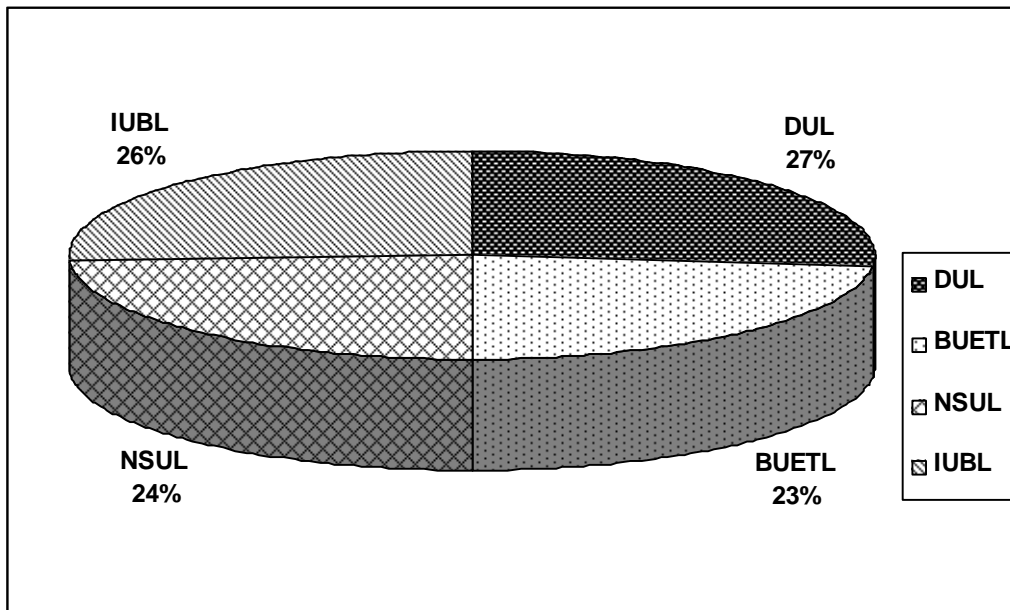
The three main components of the library are staff, books and user. It is already established that all three components which Ranganathan named as trinity of library are essential variables for library effectiveness. User satisfactions being the most centre and important for assessing the effectiveness of any library is best summarised by Alemna (1999) in these words “User is the centre of all measures of evaluations. Be it a cost effective evaluation or cost benefit evaluation, evaluation of effectiveness or performance-all end up finding ways of better serving the library user and this is the satisfaction of the demands he places upon the library.” There are two view points regarding the evaluation of user satisfaction. One is indirect method or objective where user satisfaction is studied without taking users opinions as valid indicators other is subjective or user oriented approach that refers to the measures based on users opinions or attitudes related to the quality of a library (Strecher, 1975). The services provided by different libraries do not have objective measures or construction of measuring instruments, as they are complex and ambiguous. Therefore, it is the user who uses the service; the most qualified person to evaluate the effectiveness of these services. Many authors and experts are also of the opinion that unless the objective measures are involved, tested and used, user opinion remains the valid and potent measure of user. The library’s interaction with user has been identified as the major component, to determine the library effectiveness by many experts. All user studies are rooted in and related to present and anticipated problem and many studies conducted so far are addressing the issue

of user satisfaction, user frustrations. In spite of the problems, user satisfaction is one of the strongest measures of effectiveness of the service which a library offers. With this background and underlying assumption that there is a relationship between user satisfaction and library effectiveness, user satisfaction of users of four university libraries are studied.

6.1 User Satisfaction Scale

In order to ascertain the user satisfaction of the users, a questionnaire having 119 items was distributed to eight hundred users in four university libraries (200 each from the library and details in table no. 3.1 “Data Summary Regarding Sample”). This was based on “University of Washington Faculty and Students Library Use Survey 2001” (University of Washington, 2001), The University of Connecticut Libraries Faculty Survey 1997 (University of Connecticut, 1997) and Lingnan University Library User Satisfaction Survey 2001 (Lingnan University, 2001). The items were carefully chosen and modified keeping in view the environmental and other situational condition of the sample. A total of 119 items were categorised into 12 broad headings. The main variables are on importance and satisfaction levels of users on library services, library collection and library facilities. The users were also asked to rate pre identified top priorities for the next two years for the library. All the questions were on five point likert scale except background variables which ranged from scale 1-5 (Details in table no. 3.3 “Survey Questionnaire Employed in the Study”) A total of 537 users returned the questionnaire out of 800 giving the response rate of 67.13% which is fairly reasonable. Distributions of users in various universities are represented in the Figure no. 6.1 “Distribution of Users in four University Libraries” (Ref.: table no. 3.1 “Data Summary Regarding Sample”). The results of the survey are discussed below:

Fig. no. 6.1 Distributions of Users in Four University Libraries



6.2 Background Information

A total of seven variables are identified to ascertain the background information of library users. These are age, sex, status and the Discipline in the university, how important and useful is the library and how satisfied they are with the present library. Academic status of the users in four university libraries is presented in table no. 6.1 “Academic Status of Users”:

Table no.6.1 Academic Status of Users

Sl. no.	Academic Status	DUL		BUETL		NSUL		IUBL		Total	
		F	%	F	%	F	%	F	%	F	%
1	Faculty	65	45.45	23	18.4	30	23.08	30	21.58	148	27.56
2	Students	58	40.56	60	48	81	62.31	79	56.83	278	51.77
3	Research Scholars	20	13.99	42	33.6	6	4.62	10	7.19	78	40.53
4	Other Staff	-	-	-	-	13	10.00	20	14.39	33	6.15

Ntoe: n=537. DUL = University of Dhaka Library, BUETL= Bangladesh University of Engineering and Technology Library, NSUL = North South University Library, IUBL = Independent University of Bangladesh Library.

It is very evident that majority of the users are students (51.77%) followed closely by research scholars (40.55%) and faculty (27.56%) respectively. Other staff includes the administrative staff is very negligible (6.15%). Separately, students' population is highest in the all universities except in DUL where the faculty ratio is slightly higher than students. Very few research scholars in newly established private universities namely NSUL and IUBL are explainable because these are very new universities. DUL and BUETL being comparatively oldest universities are having more faculty and research scholars. Maximum users are from DUL followed closely by IUBL, NSUL, and BUETL respectively. Age sex and discipline to which they belong are entered into following table no. 6.2 "Age, Sex and Discipline":

Table no.6.2 Age, Sex and Discipline of Users

Variables		DUL		BUETL		NSUL		IUBL		Total	
		F	%	F	%	F	%	F	%	F	%
Age Group	Below 20	12	8.39	24	19.2	18	13.85	38	27.34	92	17.13
	21-30	60	41.96	39	31.2	65	50.00	45	32.37	209	38.92
	31-40	26	18.18	23	18.4	4	3.08	19	13.67	72	13.41
	41-50	27	18.88	34	27.2	22	16.92	23	16.55	106	19.74
	51 and Above	18	12.59	5	4	21	16.15	14	10.07	58	10.80
Sex	Male	75	52.45	57	45.6	86	66.15	101	72.66	319	59.40
	Female	68	47.55	68	54.4	44	33.85	38	27.34	218	40.59
Discipline	Humanities	55	38.46	-	-	32	24.62	23	16.55	110	20.48
	Commerce	38	26.57	-	-	74	56.92	74	53.24	186	34.63
	Science	50	34.97	100	100	24	18.46	42	30.22	241	44.87

Note: n=537, DUL = University of Dhaka Library, BUETL= Bangladesh University of Engineering and Technology Library, NSUL = North South University Library, IUBL = Independent University of Bangladesh Library

It is quite natural that majority of students are in the age group of 20- 30 (56.05%) and 13.41 % of students are in the age group of 31-40. Only 29.74% of users are above 40 years of age. 59.40% of them are males and rests are females. Majority of users belong to science stream (44.88%) followed by commerce (34.63%) and humanities (20.48%) respectively. Regarding the age groups in different universities, majority of students in all universities are below 30 years of age and only 10.80% of users are 51 and above. In almost all universities, majority of users are males except in BUETL, where majority of users are

females. Maximum users from DUL are from humanities (38.46%) followed by science (34.97%) and commerce (26.57%) respectively. In BUETL all the users belong to science as the university has only science disciplines. 56.92% of users from NSUL belong to commerce followed by humanities (24.62%) and science (18.46%) respectively. In IUBL also maximum users are from commerce (53.24%) followed by science (30.22%) and humanities (16.55%) respectively.

Users were also asked about importance of the library and how satisfied they are with the library and the results are presented in the table no. 6.3 “Importance of Library to Users” and table no. 6.4 “Satisfaction of Library Hours”:

Table no. 6.3 Importance of Library to Users

Scale	Frequency	Percentage	Cumulative %
Extremely Important	160	29.80	29.80
Very Important	182	33.89	63.69
Important	158	29.42	93.11
Less Important	22	4.10	97.21
Not Important	15	2.79	100
Total	537	100.00	100.00

Table no. 6.4 Satisfaction of Library Hours

Scale	Frequency	Percentage	Cumulative %
Extremely Satisfied	18	3.35	3.35
Very Satisfied	96	17.88	21.23
Satisfied	280	52.14	73.37
Less Satisfied	134	24.95	98.32
Not Satisfied	9	1.68	100.00
Total	537	100.00	100.00

About 63.69% of the users say that library is extremely important or very important to them or 93.11% of the users say that library is important to them. Whereas, very few (6.89%) of users say that library is less important or not important to them at all. In contrast to it only 21.23% of users are either extremely satisfied or very satisfied. 52.14% of them say that they are satisfied but only 26.63% of users say that they are less or not satisfied with the library.

Thus, we can say that majority of users are belonging to age group of 20-30 and are males. Maximum users belong to science stream followed by commerce and humanities respectively. Majority of users say that library is important to them but relatively few say that they are satisfied with the library.

6.3 Visits to the Library

The respondents were asked why they visit the library and how often they visit the library. Nine activities or variables were identified for visiting the library and the users were asked to rate them on five point likret type scale. They were also asked as to how often they visit the library. The results are presented in the following table no. 6.5 “Need for Visiting the Library” and Table no. 6.6 “Average Visit to the Library”:

Table no. 6.5 Need for Visiting the Library

Sl. No.	Activity	More Often %	Weekly %	Monthly %	Quarterly %	Less often %
1	Look for a Book	1.86	13.97	30.17	30.17	23.84
2	Look for a Journal/Article	10.8	28.68	37.62	19.18	3.72
3	Look for Other Material	16.01	18.25	44.69	18.06	2.98
4	Review Newly Arrived Items	17.5	21.6	44.32	13.59	2.98
5	Consult Library Staff	40.41	22.72	22.72	10.43	3.72
6	Photocopy	10.06	16.95	20.67	35.2	17.13
7	Use Library Computers	30.17	12.85	17.69	16.67	22.53
8	Use as a place to Study	20.3	5.59	20.1	22.3	31.47
9	Browse the Shelves	29.98	11.73	27.32	26.26	4.66

Note: Frequencies count is into percentage and n=537.

Table no. 6.6 Average Visit to the Library

Sl. no.	Average Visit	Frequency	Percentage	Cumulative %
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1	Daily	178	33.15	33.15
2	Once a Week	153	28.49	61.64
3	2 or more times a week	181	33.71	95.34
4	Once a month	21	3.91	99.26
5	2 or more times a month	4	0.74	100
Total		537	100.00	100.00

Almost one third of the users (33.15%) come to the library almost everyday and 33.71% of them visit the library two or more times in a week. Only 4.65% of the users say that they visit the library once or twice in a month. Thus we can say that majority of them visit the library (95.34%) daily or once or twice in a week and only few of them visit library less frequently.

Users often visit the library for consulting the library staff, use library computers and browse the shelves and use it as a place of study in that order. The table reveals that users look for a book or a journal article very really. 44.32% of the users say that they review new arrivals monthly and 21.6% of them review them on weekly basis. Main purpose of the library is to provide information in the form of books, periodicals articles and new arrivals in the library. But here, it seems that users need the library for some other purposes than looking for the book or a periodical article. They frequent the library for consulting the library staff or using library computers or as a place of study

6.4 Library Collections

Collection development has been identified as one of the important criteria for evaluating the library by many authors (Clapp and Jordan, 1965; Voigt, 1975 and Burr, 1979). Library collection was categorized in the 13 items and users were asked about how important is each of the item in the collection and how satisfied they were with the collection of the library. Users were asked to rate their views on five point scale from extremely important to

not important and results are shown in the following table no. 6.7 “Importance of Library Collection” and table no. 6.7 “Satisfaction of Library Collection”:

Table no. 6.7 Importance of Library Collection

Sl. No.	Items	Extremely Important %	Very Important %	Important %	Less Important %	Not Important %
1	Books	37.80	41.34	20.11	0.56	0.19
2	Periodicals (Back Vol.)	39.29	39.29	17.13	3.35	0.93
3	Periodicals (Current)	34.64	52.33	9.87	2.61	0.56
4	Reference Collections	32.96	46.74	18.44	1.68	0.19
5	Microform Collections	29.98	37.99	10.24	13.04	8.75
6	Special Collections	23.65	48.23	22.53	3.54	2.05
7	Audio-Visual Items	23.46	38.18	22.53	10.61	5.21
8	Manuscripts & other Archival Materials	19.37	27.37	18.62	21.42	13.22
9	Newspapers & magazines	47.49	39.29	9.31	2.42	1.49
10	Bibliographical Data bases	37.24	42.46	16.01	3.17	1.12
11	On-Line Data bases/Internet	40.22	45.25	9.87	2.05	2.61
12	Govt. Collections	15.83	38.73	33.15	9.68	2.61
13	UN Collections	22.16	29.98	34.82	10.61	2.42

Note: Frequencies count is into percentage and n=537

Table no. 6.8 Satisfaction of Library Collection

Sl. No.	Items	Extremely Satisfied %	Very Satisfied %	Satisfied %	Less Satisfied %	Not Satisfied %
1	Books	3.17	24.39	35.38	31.10	5.96
2	Periodicals (Back Vol.)	0.56	9.31	32.22	45.25	12.66
3	Periodicals (Current)	1.30	13.22	34.08	36.69	14.71
4	Reference Collections	1.86	3.91	40.04	48.04	6.15
5	Microform Collections	0.19	0.74	8.75	16.20	74.12
6	Special Collections	0.19	1.68	30.73	49.53	17.88
7	Audio-Visual Items	0.56	1.30	7.08	39.11	51.96
8	Manuscripts & other Archival Materials	0.37	1.86	7.45	14.53	75.79
9	Newspapers & magazines	18.62	37.43	27.75	11.73	4.47
10	Bibliographical Data bases	0.93	10.06	38.73	31.66	18.62
11	On-Line Data bases/Internet	0.93	2.23	34.64	38.36	23.84
12	Govt. Collections	0.74	1.86	15.08	55.31	27.00
13	UN Collections	0.74	1.3	10.99	39.48	47.49

Note: Frequencies count is into percentage and n=537

The table no. 6.7 shows that all the 13 items identified are either extremely important or very important to the users. Users report that current periodicals are extremely or very

important of all the collection (87.97%). Next follows newspapers and magazines (86.78%), online data bases/internet (85.47%) and bibliographical databases (79.70%) respectively. Very few respondents report that any item on the collection is less or not important. Least important collections reported are manuscripts and other archival materials and government collections. Books, back volumes of periodicals, reference collection are also reported to be extremely or very important by 70%-80% of the users. Thus, we can safely say that all thirteen items of the collection are important to the users. However, their satisfaction levels on these thirteen items recorded in table no. 6.8 show opposite results. Majority of the users seem to be less or not satisfied at all with the library collection. 46.05% of users say that they are extremely or very satisfied with newspapers and magazines the library has. This is followed by books (27.56%), current periodicals (14.52%), bibliographical databases (10.99%) and back volume (9.87%) respectively. 57.91% of users say that they are less or not satisfied with back volumes and 57.41% of users are not satisfied with special collection. Users are also not satisfied with microform collection (90.32%) and current periodicals (57.91%). Further, users show maximum satisfaction with government collection (82.31%) and UN collections (86.97%).

Thus, we safely conclude that the more the users see the importance of the collection, less the users seem to be satisfied with the collection available in the university libraries.

6.4 Library Services

In almost all instances, libraries have a long and commendable record as service organizations. Libraries continuously try to provide new programs and services with the hope that these may succeed in satisfying expressed or unexpressed needs of users. Evaluation of library services is one of the criteria to see the effectiveness of libraries. Users were asked the question about the importance of sources of information and satisfaction of library services provided by the library. Six types of sources of information and 13 types of services are identified for the purpose of this study. Results of these are shown in the table no. 6.9 “Importance of Sources of Information” and table no. 6.10 “Satisfaction of Library Services” below:

Table no. 6.9 Importance of Sources of Information

Sl. no.	Sources	Extremely Important %	Very Important %	Important %	Less Important %	Not Important %
1	Your University Library	33.89	44.88	19.74	1.49	-
2	Departmental/Inst. Library	21.79	50.09	25.51	2.23	0.37
3	Personal Collection	8.01	15.27	38.18	31.47	7.08
4	Faculty/Other Students	8.19	24.39	30.54	23.09	13.78
5	Internet/Web Sources	26.82	39.85	21.60	10.43	1.30
6	Other Library	2.98	24.39	37.80	25.70	9.12

Note: Frequencies count is into percentage and n=537

Table no 6.10 Satisfactions of Library Services

Sl.	Library	Extremely	Very	Satisfied	Less	Not	Don't
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no.	Services	Satisfied %	Satisfied %	%	Satisfied %	Satisfied %	Use %
1	Lib. Use Instructions	1.86	1.86	23.46	47.11	25.7	-
2	Reshelving of Lib Materials	1.3	13.59	44.32	32.22	8.57	-
3	Location of Resources	1.68	2.79	48.42	42.46	4.28	0.37
4	Library catalogue	1.3	1.68	33.15	46.18	17.5	0.19
5	Assistance at Reference Desk	1.86	1.12	35.75	38.18	22.53	0.56
6	Circulation Service	1.12	31.47	30.35	23.09	13.04	0.93
7	Bibliographical Services	0.93	1.3	24.58	11.73	59.4	2.05
8	Current Awareness Service	0.74	2.61	24.02	8.19	47.67	16.76
9	Inter Library Loan/Article Delivery Service	1.12	1.3	21.79	14.53	38.73	22.53
10	Access to Computers	1.3	18.62	46.74	8.01	22.91	2.42
11	Library website	0.93	1.12	38.73	8.57	47.3	3.35
12	Library database	0.93	19.93	33.89	13.78	29.24	2.23
13	Staff Assistance in Library	1.86	18.25	46	8.57	24.77	0.56

Note: Frequencies count is into percentage and n=537

University library is the most important source of information for the users.78.77% of users says that library is extremely or very important for them. This is closely followed by departmental library and internet/web sources in that order. Least important sources of information are personal collection and other library.

Users do not seem to be extremely or very satisfied with any of the thirteen library services. More of them seem to be satisfied at average level with all the services provided by the library. 48.42% of the users say that they are satisfied with location of resources followed closely by access to computers (46.74%), staff assistance to libraries (46%), reshelving of library materials (44.32%) respectively. 22.53 % of users never use inter library loan services and 16.76% of users never use current awareness services. Users seem to have maximum satisfaction levels with circulation services but surprisingly they are least satisfied with library catalogue.

6.5 Library Facilities

The facilities provided by the library are the index to the quality of the library services and effectiveness of the library. Five questions were asked to the users to rate their libraries on the facilities. These are importance of library facilities, satisfaction of the library facilities, need for library during off timings, library services provided during off timings, and use of information technology and online library resources. Library facilities were identified 12 variables namely group study rooms, individual study carrels, reading tables, air condition & ventilations, lighting, photocopies, PC and computer terminals, audio visual equipment, quietness, cleanliness, security and personal property and furniture. Table no. 6.11 shows the Importance of the Library Facilities and table no. 6.12 shows the “Satisfaction of Library Facilities”:

Table no. 6.11 Importance of Library Facilities

Sl. No.	Facilities	Extremely Important %	Very Important %	Important %	Not Important %	Less Important %
1	Group Study Rooms	39.85	49.53	7.64	0.56	2.42
2	Individual Study Carrels	34.82	52.33	10.99	0.37	1.49
3	Reading Tables	47.67	39.85	10.43	0.19	1.86
4	Air Condition & Ventilation	45.25	43.76	8.01	0.37	2.61
5	Lighting	46.74	45.81	5.77	0.74	0.93
6	Photocopies	46.37	36.87	14.53	0.37	1.86
7	PC & Computer Terminal	61.08	31.28	5.77	0.37	1.49
8	Audio-Visual Equipment	10.80	50.84	34.82	0.74	2.79
9	Quietness	62.38	30.54	5.96	0.19	0.93
10	Cleanliness	61.64	29.42	7.45	0.56	0.93
11	Security & Personal Property	30.35	38.55	24.58	0.56	5.96
12	Furniture	45.25	43.2	9.12	0.19	2.23

Note: Frequencies count is into percentage and n=537

Table no. 6.12 Satisfaction of Library Facilities

Sl. no.	Facilities	Extremely Satisfied %	Very Satisfied %	Satisfied %	Less Satisfied %	Not Satisfied %
1	Group Study Rooms	1.68	7.08	25.51	36.13	29.61
2	Individual Study Carrels	2.61	2.79	9.68	21.6	63.31
3	Reading Tables	2.42	26.44	44.32	22.53	4.28
4	Air Condition & Ventilation	3.17	36.13	23.09	25.14	12.48
5	Lighting	6.15	39.85	36.13	15.27	2.61
6	Photocopies	6.15	41.34	27.37	17.13	8.01
7	PC & Computer Terminal	1.30	10.61	33.71	32.4	21.97
8	Audio-Visual Equipment	0.93	2.05	6.52	32.59	57.91
9	Quietness	1.68	9.5	45.62	35.75	7.45
10	Cleanliness	10.80	33.71	33.15	16.2	6.15
11	Security & Personal Property	1.68	7.08	25.51	36.13	29.61
12	Furniture	2.61	2.79	9.68	21.6	63.31

Note: Frequencies count is into percentage and n=537

The results are similar to library collection and services. The users reveal that all 12 library facilities are extremely or very important whereas they are less or not satisfied with these library facilities. The most important facility emerging is the facility of providing PC and computer terminals (92.34%) followed by quietness and cleanliness respectively. Not a single facility identified is shown as less or not important. Results of the satisfaction levels are reverse of importance. Majority of users are very less or not satisfied with any of these facilities. Individual study carrels and audio visuals equipments show least satisfaction. Users were also asked whether they need the library during off timings and what type of services are provided during these timings. The outcome is presented in table no. 6.13 “Library Services provided During off Times”:

Table no. 6.13 Library Services Provided During Off Times

Need of Library During off Timings	Timings	Always %	Frequently %	Sometimes %	Rarely %	Never %
	Evenings		25.33	46.37	23.65	3.35
Weekends		23.84	29.42	14.34	8.75	23.65
Holidays		8.57	30.17	28.49	23.09	9.68
Summer session		18.06	52.14	25.33	2.61	1.86
Library Services Provided	Place to Work	28.86	40.78	23.28	3.91	3.17
	Reference Assistance	10.06	23.09	46.37	19.93	0.56
	Computer Access	49.35	32.77	10.80	4.66	2.42
	Check out Materials	16.39	21.42	40.97	19.18	2.05
	Access to Collection	22.53	29.8	40.78	6.15	0.74
	Copy Services	23.28	41.34	27.56	7.08	0.74
	Reserves	5.03	21.97	36.87	21.04	15.08

Note: Frequencies count is into percentage and n=537

The users report that there is need to open the library during evenings and summer session always or frequently. 71.70% of them want the library to be open on evenings and 70.20% of them want it to be opened on summer sessions also. 53.26% of them also want to be opened on weekends. Many few people say that they rarely or never want library to be open on off timings. Many users want services like computer access, copying services and a place to work in a library during off timings in the library. 82.12 % of users want the library for computer access during off timings followed by 64.02% for copying services and 59.64% for copying service respective \$6.37% of users also need reference assistance sometimes during off timings followed by check out materials and access to collection respectively. So we can safely say that users want the library to be opened during off times and want computer access and a place to work during these times in the library.

Eight items were identified for use of information technology and on line library resources. These are visit library in person, find books in the library, find citations to journal articles, use internet library loan, consult reference librarians, acquired information from non library sources, keep current in your field or find new materials and be a more productive

researcher. Table no. 6.14 “Use of Information Technology/Online Library Resources” indicates the likeliness of using the library for items.

Table no. 6.14 Use of Information Technology/On line Library Resources

Sl. no.	Items	Extremely Likely %	Very Likely %	Likely %	Less Likely %	Not at all Likely %
1	Visit Library in person	6.52	48.42	40.78	2.61	1.68
2	Find books in Library	15.83	40.41	38.55	3.91	1.30
3	Find citations to Journal article	15.46	36.31	35.2	12.48	0.56
4	Use inter-Library loan	7.82	36.31	42.27	10.06	3.54
5	Consult Reference Librarians	6.7	41.34	36.5	13.97	1.49
6	Acquired Information from Non-Library sources	8.38	35.94	48.98	5.4	1.3
7	Keep current in your field/find new materials	17.88	50.09	27.37	3.91	0.74
8	Be a more productive researcher	46.74	36.13	13.22	2.98	0.93

Note: Frequencies count is into percentage and n=537

Most of them are likely to use information technology for keeping current and up-to-date in the field and be a productive researcher. 82.87% of them use information technology for be a productive researcher followed by keeping current in the field (67.97%) and finding books in the library (56.24%) respectively. Use of information technology is also used for finding citations for journal article and acquiring information from non library sources. Visiting the library is least likely or not likely to be used for this purpose. Therefore, we can conclude that use of information technology and online library resources are used for keeping up-to-date in their subject, finding latest information in terms of journal articles and papers so that they can be productive researcher.

6.6 Top Priorities

The users are asked as what could be the priorities for the next two years for improving the library facilities and services in the library. Twelve items identified for this purpose are enumerated in the table no. 6.15 “Top Priorities for the Next Two Years” Users were again asked to rate them on five point likert scale ranging from extremely important to not important. The results are presented below:

Table no. 6.15 Top Priorities for Next Two Years

Sl. no.	Items	Extremely Important %	Very Important %	Important %	Less Important %	Not Important %
1	Provide Electronic Access to Old Journals	46	43.95	9.87	0.19	-
2	Increase Library Hours	54.56	34.08	8.57	2.61	0.19
3	Add More Computers	63.13	33.33	3.35	0.19	-
4	Provide Lib. Consultation for Researcher	28.68	22.35	20.11	25.14	3.72
5	Provide Course Reserve material Electronically	37.24	47.49	14.15	0.93	0.19
6	Preserve Lib. Materials from Deterioration	17.69	32.22	35.01	15.08	-
7	Provide Safe Environment for Lib. Users	63.69	30.54	5.21	0.37	0.19
8	Provide Training in Using Lib./Web Resources	34.82	34.08	21.79	9.31	-
9	Provide Quieter Study/Work Areas	50.65	41.53	6.89	0.93	-
10	Computerization the whole Lib.	68.72	26.82	3.91	0.19	0.37
11	Provide unlimited access to internet sources	41.34	48.6	8.75	1.3	-
12	Provide Trained & Efficient Staff	44.13	49.72	5.4	0.56	0.19

Note: Frequencies count is into percentage and n=537

All the twelve items are found to be top priority for the next two years. Very less or marginal people said that these are not important or less important priorities for the next two years. Approximately more than 95% of the users want the library to improve in electronic

access to old journals, course materials, and provide unlimited access to internet sources during the next two years. In order to do that they want library to add more computers, computerize the whole library, provide trained and efficient staff, increase library hours, and provide quieter places to study. They also want the library to see that library materials are preserved from deterioration and safe environment for library users as the top priorities for the next two years. This clearly indicates that users want the library for better facilities and services during the next two years.

6.7 Overall Satisfaction

In order to sum up the whole study, users are asked three questions in the last for overall satisfaction of the library. They are on library services, library collections and overall library satisfaction of the users. They rated their answers on five point likert type scale ranging from 'extremely satisfied' to 'not satisfied' at all. Outcome is presented in three tables namely table no. 6.16 "Library Services", table no. 6.17 "Library Collections" and table no. 6.18 "Overall Library Satisfaction"

Table no. 6.16 Library Services

Variables	DUL (n=143)	BUETL (n=125)	NSUL (n=130)	IUBL (n=139)	Total (n=537)
	%	%	%	%	%
Extremely Satisfied	2.1	0.8	0.77	-	2.42
Very Satisfied	3.5	0.8	32.31	5.04	23.65
Satisfied	39.16	16	64.62	56.83	38.92
Less Satisfied	40.56	37.6	0.77	35.25	20.48
Not Satisfied	14.69	44.8	0.77	2.88	14.53

Note: Frequencies count is into percentage. n=537. DUL= University of Dhaka Library, BUETL= Bangladesh University of Engineering & Technology Library, NUSL= North-South University Library, IUBL=Independent University of Bangladesh Library.

Table no. 6.17 Library Collections

Variables	DUL (n=143)	BUETL (n=125)	NSUL (n=130)	IUBL (n=139)	Total (n=537)
	%	%	%	%	%
Extremely Satisfied	2.1	0.8	2.31	-	1.49
Very Satisfied	4.9	15.2	8.46	2.88	13.78
Satisfied	51.05	51.2	58.46	56.83	53.45
Less Satisfied	31.47	32	30.77	35.25	27.75
Not Satisfied	10.49	0.8	2.31	17.27	3.54

Note: Frequencies count is into percentage. n=537. DUL University of Dhaka Library, BUETL= Bangladesh University of Engineering & Technology Library, NUSL= North-South University Library, IUBL=Independent University of Bangladesh Library.

Table no. 6.18 Overall Library Satisfaction Level

Variables	DUL (n=143)	BUETL (n=125)	NSUL (n=130)	IUBL (n=139)	Total (n=537)
	%	%	%	%	%
Extremely Satisfied	0.7	-	2.31	1.44	0.56
Very Satisfied	6.29	0.8	2.31	67.63	19.93
Satisfied	29.37	62.4	59.23	28.06	43.95
Less Satisfied	46.85	35.2	36.15	2.16	29.98
Not Satisfied	16.78	1.6	2.31	0.72	5.59

Note: Frequencies count is into percentage. n=537. DUL= University of Dhaka Library, BUETL= Bangladesh University of Engineering & Technology Library, NUSL= North-South University Library, IUBL=Independent University of Bangladesh Library.

Regarding library services, it is very evident that users are more satisfied in NSUL (64.62%) and IUBL (56.83%) than in DUL (39.16%) and BUETL (16%). In overall 64.99% of users are extremely satisfied or satisfied and only 35.01 % of them are less satisfied or not satisfied. Thus, we can conclude that users are more satisfied with library services in private university libraries rather than in public university libraries.

Regarding the library collections, 68.72% of users seem to be extremely satisfied or simply satisfied with library collections and only 30.29% of them are less or not satisfied with library collections. Satisfaction levels among different university libraries remain more or less same. Very few users say that they are extremely satisfied with the library collections. Thus we can say that users are generally satisfied with the library collections.

Further, only 25.53% of users are overall satisfied with library, 43.95% of them are satisfied and 35.53% of them are less or not satisfied with library. Again very marginal users are extremely satisfied with library. It is evident that users in BUETL seem to be more satisfied, followed closely by NSUL, DUL, and IUBL in that order. It was of interest to know whether public and private university libraries show different result on these three variables. Frequencies were computed and results are shown in table no. 6.19 “Overall Library Satisfaction Level (Public versus Private University Libraries)”:

Table no. 6.19 Overall Library Satisfaction Level (Public versus Private University Libraries)

Variables	University Libraries	Scale				
		Extremely Satisfied	Very Satisfied	Satisfied	Less Satisfied	Not Satisfied
		%	%	%	%	%
Library Services	PUUL (n=268)	1.49	2.24	28.36	39.18	28.73
	PRUL (n=268)	3.35	44.98	49.44	1.86	0.37
Library Collections	PUUL (n=268)	1.49	9.7	51.12	31.72	5.97
	PRUL (n=268)	1.49	17.84	55.76	23.79	1.12
Overall Library Satisfaction Level	PUUL (n=268)	0.37	3.73	44.78	41.42	9.70
	PRUL (n=268)	0.74	36.06	43.12	18.59	1.49

Note: Frequencies count is into percentage. n=537. PUUL=Public University Libraries and PRUL=Private University Libraries

The table shows similar results. Users are not extremely satisfied in any university libraries. However, they are very or satisfied in public university libraries rather than private university libraries on all the three variables namely library collections, library services and overall library collections.

To sum up we can say that users show library collections, library services and library facilities are very important to them but when it comes to satisfaction levels they show very less satisfaction on all three variables. On basis of above discussions two general hypotheses are forwarded:

Hypothesis # H₅: Age, discipline, academic status, importance of the library and average library use in the university will not determine the satisfaction levels of library users.

Hypothesis # H₆: The favourable the organizational climate is in the library, greater is the satisfaction levels of library users whereas, the less the favourable the organizational climate is in the library, greater is the dissatisfaction of the library users.

In order to test the number five hypothesis the correlation was computed between background variables (age, discipline and academic status, importance of the library and average library use) and satisfaction levels (library services, library collections and overall satisfaction) of library users. Correlations were computed and results are shown in table no. 6.20 “Inter-Correlation between Background variables and Overall Satisfaction of University Libraries”:

Table no. 6.20 Inter-Correlations between Background variables and Library Satisfaction Level

Variables	1	2	3	4	5	6	7	8
Age	x							
Discipline	-0.03	x						
Academic Status	-0.16*	-0.09	x					
Library Importance	-0.17*	0.11	0.47**	x				
Average Library Use	0.26**	-0.08	0.04	0.03	x			
Satisfaction of Library Services	-0.06	-0.35**	0.01	-0.14	0.08	x		
Satisfaction of Library Collections	-0.11	-0.02	0.20*	0.18*	0.03	0.24*	x	
Overall Library Satisfaction Level	-0.13	-0.06	0.15*	0.12	0.04	0.45**	0.44**	x

Note: 1=Age,2=Discipline,3=Academic Status, 4= Library importance, 5= Average Library use, 6= Satisfaction of Library Services, 7= Satisfaction of Library Collections, 8=Overall Satisfaction Level and **< 0.01,*p< 0.05.

The above table shows that age is having negative significant relations with academic status and library importance but, positively related with average library use. Importance of library is also having positive significance with academic status and overall library satisfaction levels. Overall satisfaction is highly inter correlated with satisfaction of library services and satisfaction of library collection (p=0.01 level). Discipline has negative correlation with satisfaction of library services. Thus, we can say that status in the university affects the overall satisfaction of the library users of the university. Higher the age, lesser is the importance of library to the users. Since all students are in the age group of 20-30 years, it means library is important and used by students and research scholars more than faculty

members. All the variables are not showing significant relationships. Therefore, hypothesis₅ is partially rejected.

In order to test the hypothesis, ANOVA was computed between user satisfaction and universities libraries and results are presented in following two table no. 6.21”user satisfaction versus universities libraries (ANOVA) and table 6.22 “Ratings of University Libraries on User Satisfaction.”

Table no. 6.21 User Satisfaction versus Universities Libraries (ANOVA)

Sl. No.	User Satisfaction	Universities Libraries					df 3/533 F Ratios
		DUL (n=143)	BUETL (n=125)	NSUL (n=130)	IUBL (n=139)	Total (n=537)	
1	Library Services	2.378	1.752	3.331	3.640	2.790	188.97*
	RANK	3	4	2	1	-	-
2	Library Services	2.566	2.832	2.731	3.151	2.819	15.72*
	RANK	4	2	3	1	-	-
3	Overall Library Satisfaction Level	2.273	2.624	2.615	3.669	2.799	12.72*
	RANK	4	2	3	1	-	-

Note: DUL= University of Dhaka Library, BUETL= Bangladesh University of Engineering & Technology Library, NUSL= North-South University Library, IUBL=Independent University of Bangladesh Library.

Table no. 6.22 Ratings of Universities Libraries on User Satisfaction

Sl. No.	User Satisfaction	Universities Libraries			
		High to Low			
1	Library Services	IUBL	NSUL	DUL	BUETL
2	Library Collections	IUBL	BUETL	NSUL	DUL
3	Overall Library Satisfaction Level	IUBL	BUETL	NSUL	DUL

Note: DUL= Dhaka University Library, BUETL= Bangladesh University of Engineering & Technology Library, NUSL= North-South University Library, IUBL=Independent University of Bangladesh Library.

The four university libraries have been already categorised into favourable and unfavourable climates in chapter 4 “Organizational Climate of Libraries”. This chapter already concludes that BUETL and IUBL are having favourable organizational climate and DUL and NSUL are having unfavourable organizational climate (Table no. 4.4 “Organizational Climate versus universities libraries (ANOVA)” and table no. 4.5 “Ratings of

University Libraries on Organizational Climate Factors)". Table no. 6.21 shows the mean values and ranks of four university libraries on three variables of user satisfaction. It is very clear that IUBL is having first rank on the all three variable, meaning thereby that user satisfaction levels are higher in that university library as compared to other university libraries. BUETL is having second rank on library collection and overall library satisfaction and fourth rank on library services. This indicated that library services are weak in BUETL. DUL is having more or less middle position with second rank on library services and third rank on library collections and overall library satisfaction levels. It is again DUL which is figuring lowest on user satisfaction levels (unfavourable organizational climate). While comparing, we can conclude that favourable organizational climate (IUBL and BUETL) is likely to see library users more satisfied with library services, facilities and library collection as it very evident in table no. 6.22 "Ratings of University Libraries on User Satisfaction". However, the F ratio shows significance on only library services which reveals that library services are different and they do make the difference in different university libraries

Further, to see the difference between public and private university libraries on user satisfaction, again ANOVA was computed and results are shown in table no. 6.23 "User Satisfaction versus Public and Private Universities (ANOVA) and table no. 6.24 "Ratings of Public and Private Universities on User Satisfaction Variables" below:

Table no. 6.23 User Satisfaction versus Public and Private University Libraries (ANOVA)

Sl. No.	User Satisfaction	University Libraries			Df	1/535
		PUUL (n=268)	PRUL (n=269)	Total (n=537)	F Ratios	
1	Library Services	2.09	3.49	2.79		453.99*
	RANK	2	1	-		-
2	Library Collections	2.69	2.95	2.82		15.66*
	RANK	2	1	-		-
3	Overall Library Satisfaction Level	2.44	3.16	2.80		121.97*
	RANK	2	1	-		-

Note: PUUL=Public University Library and PRUL=Private University Libraries.

Table no. 6.24 Ratings of Public and Private University Libraries on User Satisfaction

Sl. No.	User Satisfaction	Public and Private University Libraries	
		High to Low	
1	Library Services	Private University Libraries	Public University Libraries
2	Library Collections	Private University Libraries	Public University Libraries
3	Overall Library Satisfaction Level	Private University Libraries	Public University Libraries

The above tables need hardly any explanations as it very evident that private universities are high on library services, library collection and overall library satisfaction. Here also the F ratio is highly significant on library services. This indicates that there is lot of difference between library services provided in private universities as compared to public universities. The results are very encouraging and the hypothesis # 6 is accepted

6.8 Conclusion

537 users of four university libraries belong to faculty (27.56%), students (57.77%) research scholars (40.53%) and other staff members (6.15%). Users were categorised into three different discipline namely humanities (20.48%), commerce (34.63%) and science (44.87%). Majority of users are young and in the age group of 21-30. This is very obvious because maximum users are students. Almost 69.46% are up to age of forty and 59.40% are

males. Library seems to be important to almost all of them (93.11%) but all of them do not seem to be satisfied with the library (73.27%). Users visit the library for consulting library staff, using library computers or browsing the shelves. Looking for a book or journal article is not reason for visiting library very often as only 33.15% users visit library everyday. Almost all of them visit the library at least once a month.

Majority of users have identified the importance of various library collections newspapers & magazines, online databases, current and back volumes of periodicals, books and reference collection emerge as extremely important to users. Manuscripts and other archival materials are least important. In contrast, users show very low satisfaction levels on all the items of library collection. Hardly anyone is extremely satisfied with periodicals, reference collections, special collections, bibliographical databases and online databases/internet. Only 33.89% users say that university library is extremely important to them. Other extremely important source of information is internet/web sources and departmental & institutional libraries. Out of thirteen already identified services provided by university libraries, only marginal or very few users are satisfied. Specialised services like CAS, library databases and bibliographical services show very less satisfaction levels. For the purpose of this study, twelve facilities are identified. Users report that all of the facilities are extremely important to them but they are least satisfied with any of the facility provided by the librarians. Out of this 61.08% users show importance of PC and computer terminals whereas only 1.30% of them are extremely satisfied with what library is provided. This indicates that there needs a lot of be done in order to enhance the facilities to the expect atrolinal levels of users. Users also need the library to open especially during evenings and weekends. During these timings they want computer access, photocopying services, access to

collection and a place to work in the library. In addition to this, respondents would like to use information technology for the purpose of being a more productive researcher by keeping current or up-to-date in discipline and finding citations to journal articles. Twelve top priorities for next two years identified for the purpose of this study are provide electronic access to old journals, increase library hours, add more computers, provide library consultation for researches, provide course reserve materials electronically, preserve library materials from deterioration, provide a safe environment for library users, provide training in using library / web resources, provide quieter study/work areas in libraries, computerization the whole library, provide unlimited access to internet sources, provide trained and efficient staff. Majority of users (app. 90%) says that all the above mentioned priorities are extremely important to them.

Overall library satisfaction has been categorised into, overall satisfaction of services, overall satisfaction of collections and overall library satisfaction. Most of them seem to be satisfied on above three variables. Users in private universities are more satisfied with library services and collections than public university libraries. Overall satisfaction levels are also high in North-South University library and Independent University of Bangladesh library rather than Bangladesh University of Engineering and Technology library and University of Dhaka library as evident from table no. 6.19 “Overall Library Satisfaction Level (Public versus Private University Libraries)”.

Inter-Correlations computed between background variables and overall satisfaction levels show that higher the age, higher the average library use. Academic status also influences the library use. Three variables of overall library satisfaction are highly positively intercorrelated. This shows, higher the satisfaction of library services and collections, higher

will be overall library satisfaction of users on the library. Further, ANOVA results of these with university libraries shows that Independent University of Bangladesh library ranks higher on all the followed by Bangladesh University of Engineering and Technology library closely. North-South University library has third rank and University of Dhaka library ranks the last on two items. We can conclude that users in Independent University of Bangladesh library and Bangladesh University of Engineering and Technology library are more overall satisfied as compared to North-South University library and University of Dhaka library. This also shows that users are more satisfied with favourable organizational climate (Independent University of Bangladesh library, Bangladesh University of Engineering and Technology library) and dissatisfied with unfavourable organizational climate (North-South University library, University of Dhaka library). A rating of these three variables show that private universities ranking is higher as compared to public universities. Thus we can conclude that collectively public universities are providing better facilities and services as compared to private universities.



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CHAPTER 7

DISCUSSION AND SUGGESTION

7.0 Introduction

The library effectiveness has not been measured in this study by measuring a single criterion, which has been the trend in the literature so far. Instead of taking one or the other criterion for studying library effectiveness, a multiple of variables were identified which will ultimately measure the overall effectiveness of libraries. Taking the synthesized and integrated view of studying the library effectiveness has been based on system theory and more or less on the model suggested by Du Mont and Du Mont (1979). All the three basic components of the library namely library and library personnel (staff), library users and library inputs (Books, etc) are measured here in order to arrive at the conclusion whether the library is effective or not. The various variables thus, studied are. Organizational climate of the libraries, leadership styles of library professionals, job satisfaction of library professional, library user satisfaction and library input in terms of library budget, collection, services and facilities provided. The organizational structure and process are the determents of climate which in turn determines organizational effectiveness. Organizational climates are categorized into favourable and unfavourable climates. It is assumed that the type of organizational climate will determine the organizational effectiveness. Library personnel, being the important component of the library organization have a distinct relationship with the pursuit of organizational goals. Styles of supervision and motivational processes are directly related to effectiveness of library personnel. Different leadership styles that will induce different organizational climates have been tested already in various organizations and effective leader has been identified as one of the important variable of effective organization. Managerial

performance is related to employee satisfaction, employee productivity and ultimately organizational effectiveness. Employee satisfactions are dependent on job satisfaction of the library personnel. Thus we can conclude that job satisfaction, leadership styles and organizational effectiveness are related to each other. It may be safely assumed that an effective organizational climate leads to satisfied employee. Further, satisfied employee will try to have people oriented leadership styles that will ultimately lead to the effectiveness of libraries

A library is a service institution. Its basic objective is to provide information in any form to its users. The quality of the services and facilities provided by the library to its users will also determine the effectiveness of the library. Quality of services and facilities can be measured in two ways either by evaluating the services in comparison to the best available in the world or measuring the satisfaction levels of the users on these services and facilities. This study takes into account the user satisfaction for ascertaining the effectiveness of the libraries. It is assumed that favourable organizational climate will lead to effective leaders in the library and that will ultimately lead to satisfied user which is the main basic objective of the library. Therefore, all the variables mentioned above are interlaced with each other.

7.1 Organizational Climate

The factor analyses of 30 items of organizational climate converge into four factors or variables of organizational climate. These are structure, reward & warmth, inter personnel relations and working conditions. Some of the experts also have identified these variables of organizational climate (Khandwalla, 1988; Kelly, 1974). Saraf (1995) also identified similar variables of organizational climate for Indian universities. These four show high relationship with one another. Among the four, structures emerges the strongest factor followed by reward

& warmth and interpersonal relations respectively. Weakest factor is working conditions of the organizations. ANOVA was computed to see the ranking of four university libraries on these four factors and favourable & unfavourable organizational climates were identified. BUETL ranks first on three factors of organizational climate whereas; IUBL ranks first and second on the strongest factors namely structure and reward & warmth respectively. DUL has last rank on the factor structure and NSUL falls more or less in third place. On the basis of the rankings, libraries are categorised into favourable and unfavourable climates. Therefore, BUETL and IUBL are having favourable climate and NSUL and DUL are having unfavourable climate. However, DUL is having the least favourable organizational climate. This results show consistency with the information drawn from other sources. BUETL is the only library having full-fledged librarian. The professionals working in BUETL are more qualified as compared to other university libraries. IUBL and NSUL are relatively new libraries and have the advantage of starting a fresh, which helped to recruit better-qualified young professional staff with knowledge of information technology. Even salary structure is very high as compared to private universities. Therefore, motivational levels are high and libraries are automated and provide better services to the users. In contrast, DUL having the unfavourable organizational climate is largest and oldest library with maximum old collection and staff. It inherits the problems of its own. The library is without librarian since last twenty years. It has to cater to huge population of more than 23,000 students and about 1300 faculty members and faces the staff and budget constraints. The staffs are the oldest and less qualified as compared to other universities.

7.2 Leadership Styles

A total of 78 out of 101 (response=77.23%) library professionals of four university libraries (male=58, females=20) took part in the study. Majority of the respondents (87.18%) are in the age group of 20-50 years out of which 34.62% belong to 45-50 years. However 85.90% of them joined the profession before they were thirty years of age. Majority of them are having bachelors or masters degree in a academic discipline but only few of them are having masters in library and information science (37.2%). None of them have Ph.D but three of them have M.Phil degree in library and information science BUETL is the only university having university librarian and rest three universities are having only in charge or deputy librarians looking after them. 29.49% of professionals are having official cadre and rest are working as library officer, junior librarians, library assistants etc. Most of them get promotions once or twice in their service and have up to five persons reporting to them. The mobility of library professional is very low as most of them stay up to 20 years in the same organization (80%). Promotions are very slow and the respondents have to stay in the same position longer at least up to ten years. Since they have very few opportunities to move from one organization to another, they stay longer in the same organization and working in other organization is very low. 61.15% respondents report that they never worked in any other organization and only 32.1% of them worked in one or two organizations.

Factorisations of fifty items on the leadership scale led to the congregation of five variables of leadership styles. These are named as participative, bureaucratic, nurturant, authoritarian and task oriented styles. These five leadership styles show high inter-relationships. The most endorsed style is bureaucratic and participative styles. Authoritarian style falls somewhat in the middle and least endorsed styles are nurturant and task oriented styles. Thus, library professional rate themselves as bureaucratic, participative and some times

authoritarian rather than having nurturant or task oriented styles. Structure variable of organizational climate has positive relationship with all leadership styles except task oriented. Bureaucratic also seem to be related with reward & warmth. Other two organizational climates do not show any significant relationship with any leadership style. It is however surprising to see that respondents rate themselves as bureaucratic rather than task oriented and nurturant. Further positive relationship between bureaucratic and reward & warmth is also baffling. Bureaucratic leader are cautious, conservative and have strict adherence to rules and regulations of the organization. They are also suspicious of someone pulling them down. They have no time to listen to the personal problems of the subordinates. Reward & warmth of organization climate is liberal climate giving autonomy to the person concerned to work. Good work is recognised and the person concerned suitably awarded. The only explanation for this is that people in Bangladesh or the library professional in particular idolise the bureaucrats for the position and power they yield in the society. The library professional may not be necessarily having bureaucratic style. This needs further research to explain the phenomenon. Since the four universities has been already categorised into favourable (BUETL and IUBL) and unfavourable organizational climates (NSUL and DUL), it was of interest to know that what type leadership style is endorsed in two types of organizational climates. ANOVA was computed with four university libraries. IUBL and BUETL are high on three people oriented styles whereas NSUL and DUL are ranking high on authoritarian and task oriented styles. Thus, we can conclude that favourable organizational climates endorse participative, bureaucratic and nurturant styles of leadership and unfavourable organizational climates endorse more authoritarian and task oriented styles. Thus the hypothesis # 1 *“the favourable the organizational climate is, the more people oriented leadership styles leader is*

having whereas, the less the favourable the organizational climate is, and the authoritarian style the leader is having” is accepted. Comparison of private and public university libraries show that private university libraries are higher on people oriented styles and public university libraries are high on authoritarian and task oriented styles.

Further, leadership styles are influenced by the background variables of the respondents. More the age, professional qualifications, and tenure in present position and present organization, less the respondents endorse participative leadership style and bureaucratic styles. However, joining age and designations do not seem to influence any leadership styles. Task oriented being the least endorsed is hardly having impact of any background variables. Surprisingly all background variable have negative influence on leadership styles. Therefore null hypothesis # 3 “*age, qualifications, designations, tenure in present position, tenure in the present organization, number of promotions and number of other organizations worked will not determine and influence the choice of a particular leadership style*” is rejected.

7.3 Job Satisfaction

The job satisfaction scale is pre-factorised into twenty variables of job satisfaction. These are ability utilisation, achievement, activity, advancement, authority, library-policies and practices, compensation, co-worker, creativity, independence, moral values, recognition, responsibility, security, social service, social status, supervision– human relation, supervision-technical, variety and working conditions. Besides, a general satisfaction scale is added which consisting of twenty variables, one each from twenty variables. Inter correlations are

positively significant among 21 variable of job satisfaction variables. Ranking of the 21 variables (ref: table no. 5.8 “Inter-Correlation and Mean score among Job Satisfaction”) suggest that general satisfaction tops the list of satisfaction variables followed by supervision–human relation, social service, ability utilisation and variety respectively. Library-policies & practices, compensation, achievement, advancement and recognition are variables, which are ranking last in the list. It was of interest to know how relationship between job satisfaction and different organizational climates of the libraries. Structure variable of organizational climate shows strong significance with achievement, recognition, supervision and working conditions. Thus we can conclude that higher the organization is in structure, people achieve more recognition, and working conditions are better. Other three variables namely reward & warmth, interpersonal relations and working conditions do not show any significant relationship with any job satisfaction variable. Background variables show very marginal influence on job satisfaction variables. Job satisfaction is lower if respondents are having high professional qualifications. The job satisfaction is higher if the persons work in more than two organizations. They are higher in ability utilisation, creativity, achievement and independence. Academic qualifications and joining age have no impact on job satisfaction. Respondents having higher designations are also lower in job satisfaction namely ability utilization, activity and technical supervision. In view of the above results and discussions null hypothesis # 4 “ *there is no significant difference between job satisfaction and background variables namely age, qualifications, designations, tenure in present position, tenure in present organization, number of promotions and number of other organizations worked*” is rejected.

ANOVA results of job satisfaction variables with university libraries show the rankings of each university libraries on each variable. IUBL is high on 14 variables and NSUL is high on 6 variables. DUL having the least favourable organizational climate is low on 17 variables but surprisingly it has the first rank on general satisfaction variable. BUETL ranks third on most of the variables. The results are mixed. Library professional in DUL (unfavourable organizational climate) are having satisfaction levels low on 20 variables. However, people here seem to be satisfied when general satisfaction variable is taken into consideration. BUETL (favourable organizational climate) do not seem to show satisfaction with activity, advancement, compensation, and general satisfaction. Therefore it can be safely concluded that library professionals working in IUBL, NSUL are highly satisfied followed closely by IUBL whereas, professionals working in DUL show least satisfaction on the job. Thus, the hypothesis # 2 *“the favourable the organizational climate is, greater is the satisfaction of library professional on the job whereas, the less favourable the organizational climate is, greater is the dissatisfaction of the library professional on the job”* is partially accepted. To see the difference between private and public university libraries, job satisfaction levels are very high in public university libraries as compared to private university with only exception of supervision of human relations. This is because these public university libraries are having very less professional staff as compared to private university libraries. Further, job satisfaction levels are influenced by professionals’ qualifications negatively. This is because majority of them are not highly professionally qualified. Working in more than one organization makes them more satisfied towards job. Ability utilisation, achievement, activity, creativity, variety and technical supervision are influenced negatively by designation of the person. Thus, we can conclude that library professionals working in private university

libraries are more satisfied than professionals working in public university libraries. This is because that private university relatively very nascent have younger professional staffs that are better and more qualified especially in information technology areas. The libraries are equipped with state of art information technology and provide better and quality services to its patrons.

7.4 User Satisfaction

User satisfaction is the key component for assessing the library effectiveness. The more the users are satisfied, more the library will be effective is the basic premise. Assessing the user satisfaction of four university libraries came necessary to ascertain the overall effectiveness of university libraries. 537 users of four university libraries belong to faculty (27.56%), students (57.77%) research scholars (40.53%) and other staff members (6.15%). Users were categorised into three different discipline namely humanities (20.48%), commerce (34.63%) and science (44.87%). Majority of users are young and in the age group of 21-30 (38.92%). This is very obvious because maximum users are students. Almost 69.46% of them are up to age of forty and 59.40% of them are males. Library seems to be important to almost all of them (93.11%) but all of them do not seem to be satisfied with the library (73.27%). Users visit the library for consulting library staff, using library computers or browsing the shelves. Looking for a book or journal article is not reason for visiting library very often as only 33.15% users visit library everyday. Almost all of them visit the library at least once a month.

Majority of users have identified the importance of various library collections newspapers & magazines, online databases, current and back volumes of periodicals, books and reference collection emerge as extremely important to users. Manuscripts and other

archival materials are least important. In contrast, users show very low satisfaction levels on all the items of library collection. Hardly anyone is extremely satisfied with periodicals, reference collections, special collections, bibliographical databases and online databases/internet. Only 33.89% users say that university library is extremely important to them. Other extremely important source of information is internet/web sources and departmental & institutional libraries. Out of thirteen already identified services provided university libraries satisfy only marginal or very few users. Specialised services like CAS, library databases and bibliographical services show very less satisfaction levels. For the purpose of this study, twelve facilities are identified. Users report that all of the facilities are extremely important to them but they are least satisfied with any of the facility provided by the librarians. Out of this 61.08% users show importance of PC and computer terminals whereas only 1.30% of them are extremely satisfied with what library is provided. This indicates that there needs a lot to be done in order to enhance the facilities to the expectation levels of users. Users also desire the library to be open especially during evenings and weekends. During these timings they want computer access, photocopying services, access to collection and a place to work in the library. In addition to this, respondents would like to use information technology for the purpose of being a more productive researcher by keeping current or up-to-date in discipline and finding citations to journal articles. Twelve top priorities for next two years identified for the purpose of this study are to provide electronic access to old journals, increase library hours, add more computers, provide library consultation for researches, provide course reserve materials electronically, preserve library materials from deterioration, provide a safe environment for library users, provide training in using library / web resources, provide quieter study/work areas in libraries, computerization

the whole library, provide unlimited access to internet sources, provide trained and efficient staff. Majority of users (app. 90%) says that all the above-mentioned priorities are extremely important to them.

Overall library satisfaction has been categorised into, overall satisfaction of services, overall satisfaction of collections and overall library satisfaction. Most of them seem to be satisfied on above three variables. Inter-Correlations computed between background variables and overall satisfaction levels (Ref.: table no. 6.20 “Inter-Correlation between Background variables and Overall Satisfaction of University Libraries”) show that higher the age, higher the average library use. Academic status also influences the library use. The people with higher status tend to have less satisfaction with the library. However, users belonging to different disciplines are not satisfied with the services provided by the libraries. Since most of the users are young and students, library is important to them as compared to faculty members. Three variables of overall library satisfaction are highly positively correlated. This shows, higher the satisfaction of library services and collections, higher will be overall library satisfaction of users on the library. Thus, hypothesis # 5 “*age, discipline, academic status, importance of the library and average library use in the university will not determine the satisfaction levels of library users*” is partially accepted.

Further, it was of interest to know if favourable and unfavourable organizational climates make any difference to job satisfaction levels. ANOVA results shows that IUBL ranks higher on all the followed by BUETL closely. NSUL has third rank and DUL ranks the last on two items. We can conclude that users in IUBL and BUETL are more overall satisfied as compared to NSUL and DUL. This also shows that users are more satisfied with favourable organizational climate (IUBL, BUETL) and dissatisfied with unfavourable organizational

climate (NSUL, DUL). Hence, hypothesis # 6 “*the favourable the organizational climate is in the library, greater is the satisfaction levels of library users whereas, the less the favourable the organizational climate is in the library, greater is the dissatisfaction of the library users*” is accepted.

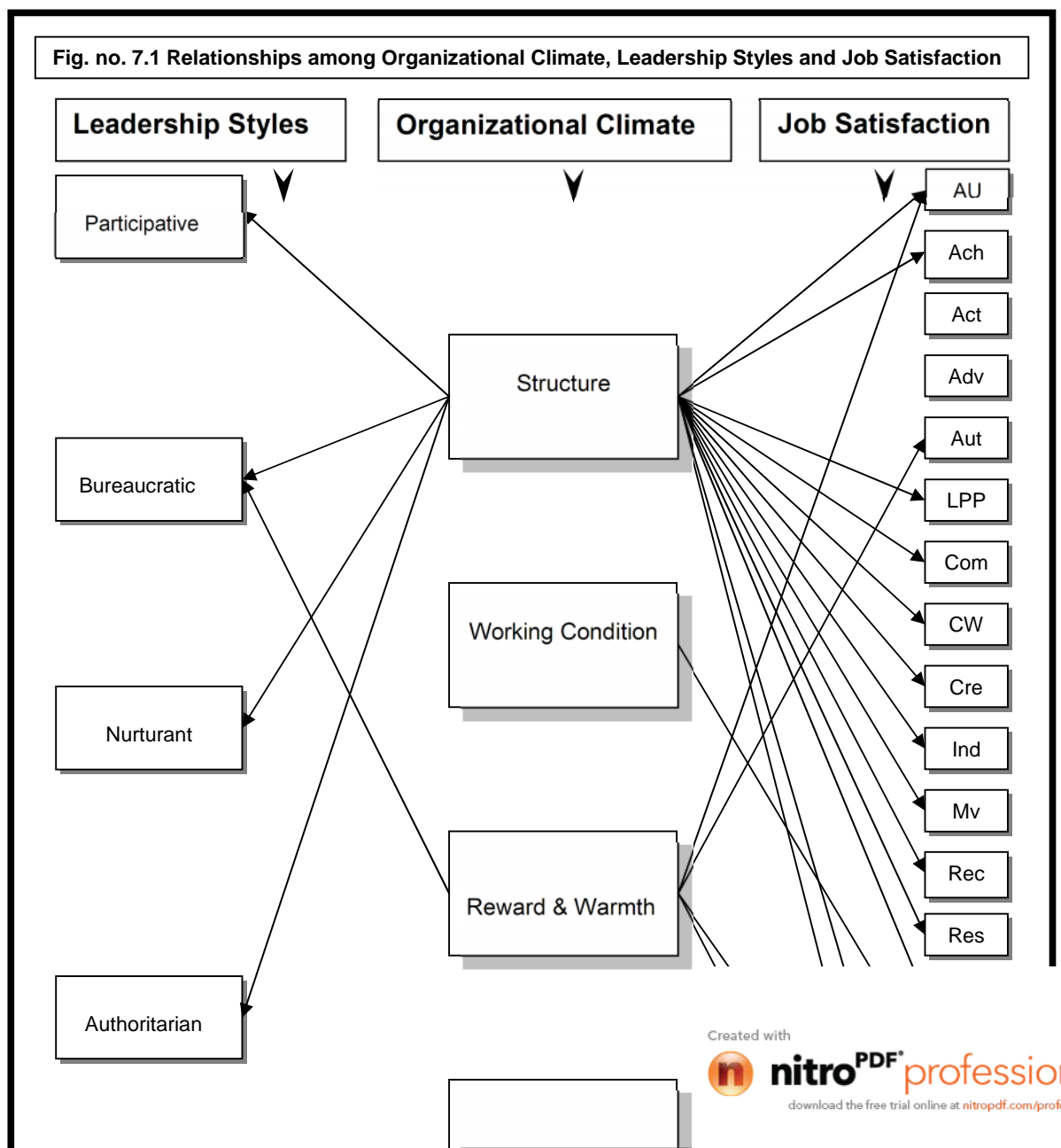
A rating of these three variables show that private universities ranking is higher as compared to public universities. Thus we can conclude that collectively public university libraries are providing better facilities and services as compared to private university libraries. Since F ratios are significant on library services. This indicates that there is lot of difference between library services provided in private university libraries as compared to public university libraries. Users in private university libraries are more satisfied with library services and collections than public university libraries. Overall satisfaction levels are also high in NSUL and IUBL rather than BUETL and DUL as evident from table no. 6.19 “Overall Library Satisfaction Level (Public versus Private University Libraries)”. This is confirmed from observation also that private university libraries are providing better and information technology based library services as compared to public university libraries which depend on more traditional methods of providing library services

7.5 Summary

The main variables which are studied here are organizational climate, leadership styles, job satisfaction and user satisfaction of libraries. Four factors of organizational variables identified are structure, working condition, reward & warmth and inter-personal relation. Structure is the first in the ranking followed by reward & warmth. Analysis of variance categorised the libraries into favourable and unfavourable climates. Bangladesh University of Engineering and Technology library & Independent University of Bangladesh

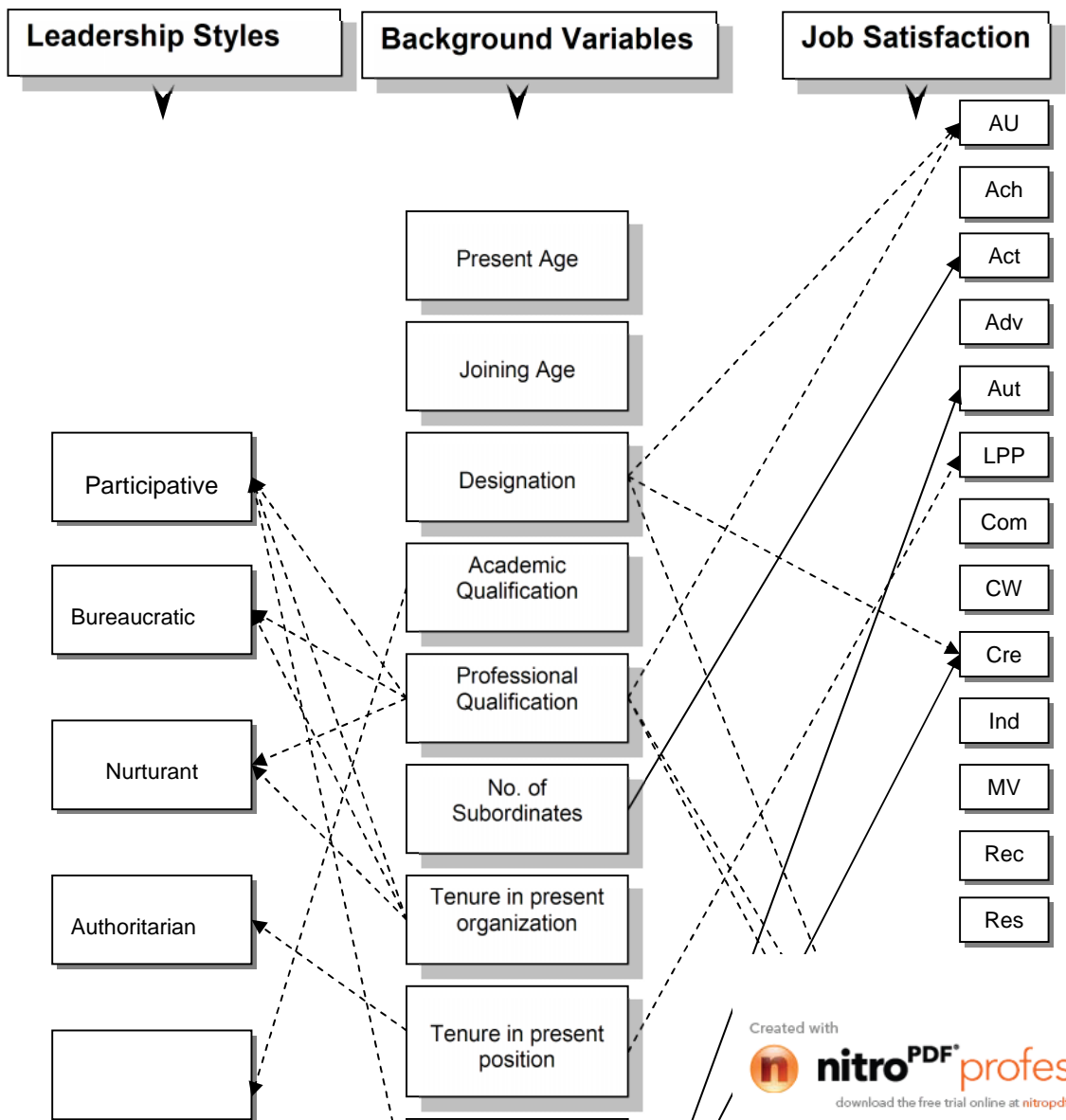
library are having favourable climates and North-South University library & University of Dhaka library are having unfavourable climate. Five leadership styles identified are participative, bureaucratic, nurturant, and authoritarian and task oriented styles. Bureaucratic style is the most endorsed style followed by participative and authoritarian styles. Least endorsed style is task oriented. Analysis of variance with university libraries show that libraries with favourable organizational climate endorse people oriented styles like participative and nurturant. And unfavourable organizational climate endorses authoritarian style of leadership. Twenty variables of job satisfaction are ability utilisation, achievement, activity, advancement, authority, library policies and practices, compensation, co-worker, creativity, independence, moral values, recognition, responsibility, security, social service, social status, supervision–human relation, supervision-technical, variety and working condition and general satisfaction, supervision of human relation, social service and ability utilisation are some of the top ranking job satisfaction variables. Analysis of variance again shows that libraries having favourable organizational climate ranks first on most of the job satisfaction variables. The only exception is that University of Dhaka library having unfavourable organizational climate is high on general job satisfaction variable. General conclusion arrived here is that library professional working in favourable organizational climates are more satisfied as compared to library professional working in unfavourable organizational climates. Further, job satisfaction and leadership styles, both show relationship with background variables of the respondents. Certain background variable like present age status, professional qualifications and tenure in present position and present organization do influence both leadership styles and whether they satisfy on the job or not. The summary of relationships of organizational climate, with leadership styles and job satisfaction variables is

shown in figure no. 7.1 “Relationships among Organizational Climate, Leadership Styles and Job Satisfaction” and summary of relationships among background variables and leadership styles and job satisfaction variables is shown in figure no. 7.2 “Relationships among Background Variables and Leadership Styles and Job Satisfaction Variables.”



Note: Only at 0.01 levels. AU=Ability Utilization, Ach=Achievement, Act=Activity, Adv=Advancement, Aut=Authority, LPP=Library-Relief & Practice, Com=Companionship, CW=Co-Workers, Cre=Creativity, Ind=Independence, MV=Moral values, Rec=Recognition

Fig. no. 7.2 Relationships among Background variables and Leadership Styles and Job satisfaction



Note: Only at 0.01 levels. AU=Ability Utilization, Ach=Achievement, Act=Activity, Adv=Advancement, Aut=Authority, LPP=Library-Policy &Practice, Com=Compensation, CW=Co-Workers, Cre=Creativity, Ind=Independence, MV=Moral values, Rec=Recognition, Res=Responsibility, Sec=Security, SSe=Social Service, SSt=Social Status, SHR=Supervision-Human Relation, ST=Supervision-Technical, Var=Variety, WC=Working Condition, GS=General Satisfaction.

User satisfaction was evaluated based on 119 items categorised into 12 broad headings. General observation is that majority of users' show that library facilities, library collection and library facilities are extremely important to them but at the same time majority of them say that they are least satisfied with the library collection, library facilities, and library services. Users want to use information technology in the library to be more productive researchers. Analysis of variance again shows that users are more satisfied libraries with favourable organization climate as compared to libraries with unfavourable organizational climate. Thus, on the basis of above discussions, we can safely conclude that Independent University of Bangladesh library and Bangladesh University of Engineering and Technology library are more effective as compared to others, followed closely by North-South University library. The least effective library is University of Dhaka library. The summary of library services, library collections and overall library satisfaction levels among the four university libraries are shown in following three figure no. 7.3 " Library Services in

University Libraries; figure no. 7.4 “ Library Collection in University Libraries” and figure no. 7.5 “Overall Library Satisfaction in University Libraries.”

Figure no.7.3 Library Services in Universities Libraries

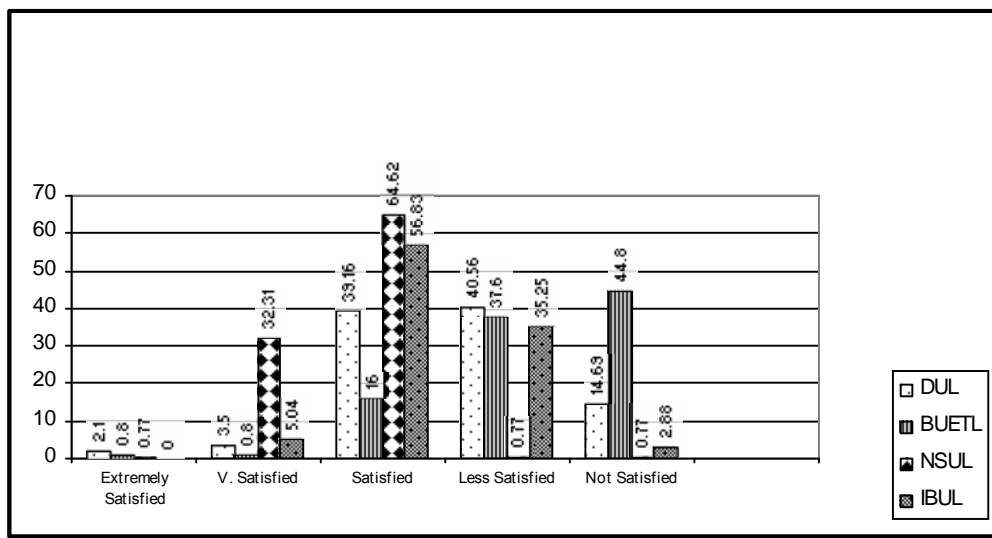


Figure no.7.4 Library Collections in Universities Libraries

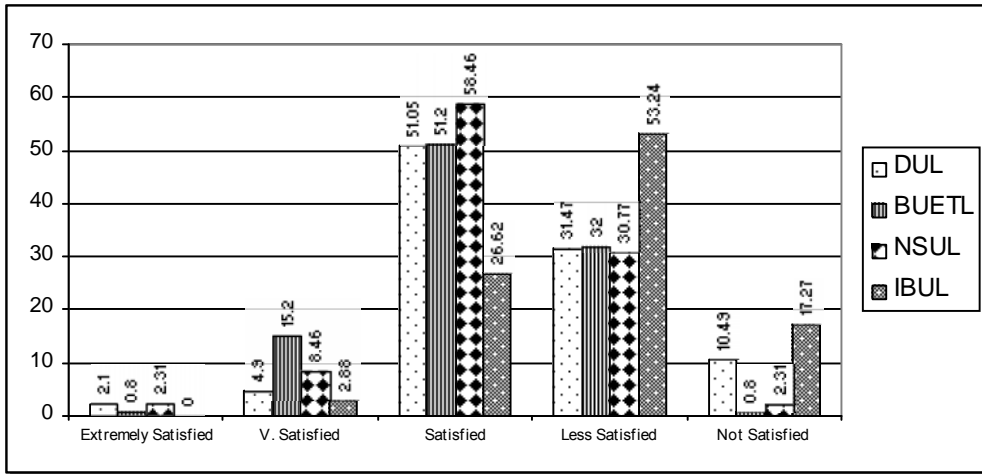
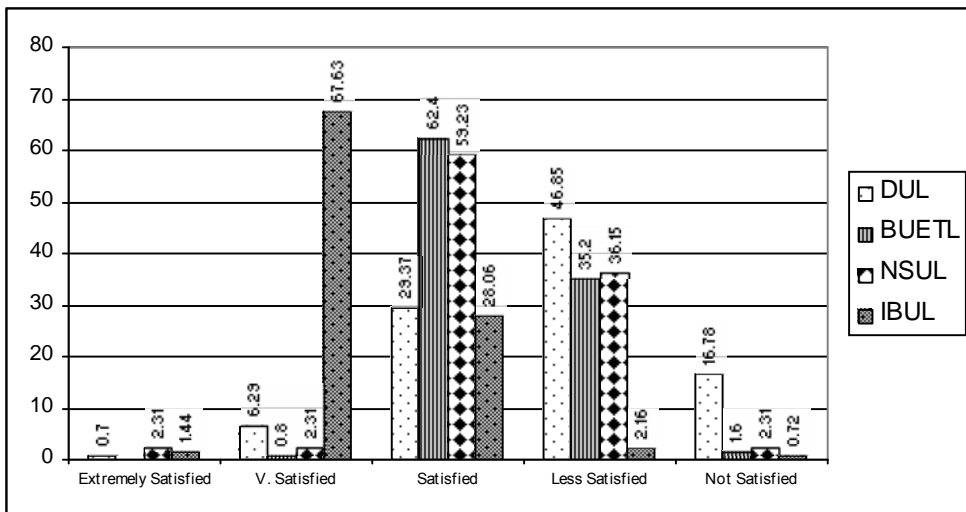


Figure no.7.5 Overall Satisfaction of Universities Libraries



7.6 Suggestions

Conclusions arrived so far show that library services and facilities are extremely important to users but at the same time users are not satisfied with the type of services provided to them. Further, two types of climates emerged namely favourable and unfavourable. Even though, a favourable organizational climate provides better services, still there is a need for a lot of improvement for better services and facilities. It is important to see the present status as well as the various types of facilities and services provided by the university libraries. Table no. 7.1 “Present Status of University Libraries: Budget and Collections” and table no.7.2 “Present Status of University Libraries: Services and Facilities” throws light on the present status of the university libraries. It is very clear that University of Dhaka library is the oldest university libraries and private university libraries namely North-South University library and Independent University of Bangladesh library are established very recently. Total library budget is highest in University of Dhaka library, followed by Bangladesh University of Engineering and Technology library, Independent University of Bangladesh library and North-South University library respectively. Bangladesh University of Engineering and Technology library spends more on books and periodicals as compared to other libraries. As far as collection is concerned, all the libraries are not adding more than five thousand books to the library per annum. Maximum professional staff is in University of Dhaka library being the oldest university library but it also caters to the huge population of 24,292 (UGC, 2001) users as compared to other university libraries which have very small population ranging from 3000-8000 users. In spite of the fact that University of Dhaka library have largest budget but majority of it is spend on staff salaries and it spends less than Bangladesh University of Engineering and Technology library on books and periodicals even

though it has to cater to large population of users. Naturally ratio of spending per user is lowest for University of Dhaka library and highest for Bangladesh University of Engineering and Technology library and Independent University of Bangladesh library. The tables further show that the libraries are providing mostly traditional services rather than innovative services. Moreover collection in the University of Dhaka library is old and updating is very slow because of the constraints in the budget. This is in contrast to private university libraries which have got the advantage of having latest and quality collection. Faculty is seems to be involved in building library collection.

Table no. 7.1 Present Status of University Libraries: Budget and Collections

Items	DUL	BUETL	NSUL	IUBL
Establishment	1921	1962	1992	1994
Total Budget: *				
2000	236.35	73.01	29.33	65.00
2001	211.45	117.99	35.20	66.00
2002	251.75	120.73	38.33	70.00
Budget* on Books & Periodicals				
2000	63.94	45.00	12.37	20.=50
2001	45.07	85.00	17.35	15.50
2002	87.00	90.00	27.29	16.20

Library Collection:				
2000	5,85,000	1,30,169	17,370	10,113
2001	5,91,000	1,31,452	18,704	12,101
2002	5,96,436	1,33,943	19,916	13,918

Note: * Taka in Lakhs, DUL= University of Dhaka Library, BUETL= Bangladesh University of Engineering & Technology Library, NUSL= North-South University Library, IUBL=Independent University of Bangladesh Library.

Table no. 7.2 Present Status of University Libraries: Services and Facilities

Items	DUL	BUETL	NSUL	IUBL
Professional Staff	65	21	6	8
Non-professional Staff	116	21	11	5
Classification	DDC – 19 Ed.	DDC – 21 Ed.	DDC – 21 Ed. & LC	DDC – 21 Ed.
Cataloguing	ACR-II	AACR-II	AACR-II	AACR-II
Total Number of User	24,292 (App.)	7963 (App.)	3,400 (App.)	3,000(App.)
Average number of User visiting the library per day	680 (App.)	450 (App.)	340 (App.)	380 (App.)
Average number of books issued from the library per day	140 (App.)	120 (App.)	110 (App.)	140 (App.)
CD-ROM Databases	Yes	Yes	Yes	Yes

Online Databases	Yes	No	Yes	Yes
In House Databases	Yes	Yes	Yes	Yes
Software Used Library	Glass	CDS/ISIS	Soft.net	CDS/ISIS & LibriumSoftware
User Education Service	Yes	Yes	Yes	Yes
Circulation Services	Yes	Yes	Yes	Yes
Assistance at Reference desk	Yes	Yes	Yes	Yes
Bibliographical Services	Yes	Yes	Yes	Yes
Current Awareness Service	Yes	Yes	Yes	Yes
Inter Library Lone/article Delivery Service	Yes	Yes	Yes	Yes
Photocopy Service	Yes	Yes	Yes	Yes
Other Services	-	-	Reservation System	News Clipping

Note: DUL= University of Dhaka Library, BUETL= Bangladesh University of Engineering & Technology Library, NUSL= North-South University Library, IUBL=Independent University of Bangladesh Library.

Users were asked to rate the twelve top priorities identified for the libraries for the next two years. Almost every one of the user said that they are extremely important or very important to them. Therefore, even though Independent University of Bangladesh library, Bangladesh University of Engineering and Technology library are more effective than North-South University library and University of Dhaka library, none the less all the libraries need to improve upon the services and facilities to be provided to the users so that they favourable organizations remain the favourable and unfavourable organizations become favourable. The following services and facilities are suggested to be included by the libraries in next two years:

- By provide access to e-journals and old journals
- Provide more computer access to the users by adding more computers to the library.
- By providing unlimited access to internet and internet related facilities.

- ❑ By providing the best physical facilities to the users so that they spend more time in the library
- ❑ By giving access to the library during off timings and weekends.
- ❑ The libraries should try to computerise the whole sections of the library
- ❑ By providing research consultants for the researchers.
- ❑ By reserving the course materials for the users electronically.
- ❑ Providing user education training programmes for using library and internet and web resources.
- ❑ Preserve the library materials especially non book materials from deteriorations.
- ❑ Provide cubicles for the researchers in the library.

The favourable organizational climate is having efficient management style. The analysis has shown that Bangladesh University of Engineering and Technology library, Independent University of Bangladesh library and North-South University library are higher on efficiency than University of Dhaka library. Both the private university libraries are having modern facilities by having their libraries fully automated inclusive of bar code technology etc. The public university libraries are still picking up on the library automation. University of Dhaka library is having the least effective organizational climate, management style and job satisfaction levels are very low. The professional are having mostly authoritarian style of functioning. Therefore it is suggested that libraries can improve upon effective management styles by taking following suggestions:

- ❑ Provide for in-service training regarding the latest trends in the field of library and information science

- ❑ Provide for the library professional staff to see and observe the functioning of other university libraries outside Bangladesh.
- ❑ Fill up the vacant post especially Librarian of University of Dhaka library and raise the motivational levels of the staff by providing for career advancement schemes.
- ❑ Hold library staff accountable for the services to be provided to the users.
- ❑ Evaluate the library system from time to time using system approach to improve upon the existing system
- ❑ Public University libraries need to move faster on library automation and provide the users' latest information technology based services. This can be achieved by training the staff in latest developments in library and information science through in-service trainings so that their efficiency levels are increased.

7.7 Drawbacks of the Study

Even though, the present study has assessed the integrated model of library effectiveness taking behavioural and organizational perspectives into consideration by using available scales and methodologies. Scale used for organizational climate did not take into consideration the impact of information technology on organizational climates. It was felt during the course of study that besides, structure, inter-personnel relations, reward & warmth, and working conditions, input in terms of information technology would also influence the favourable and unfavourable organizational climate. The private university libraries are having more favourable organizational climate than public university libraries. This has been observed that private universities having more of information technology inputs in terms of complete automation of the libraries. Therefore, one of the drawbacks of this study is that

some items of information technology inputs should have been added to the organizational climate scale and it should have been tested and verified statistically.

Initially it was decided that two libraries, one each from private and public university would be studied. But on observation it was seen that professional staff of private university libraries is very less as compared to public university libraries. Finally four university libraries two each from private and public universities from capital city of Bangladesh were selected. But statistical analysis shows that population especially of library staff should have been large enough to show better significant levels at ANOVA stage. Therefore, more university libraries should have been included in order to arrive at better results that could have led to better generalisations. Further, this type of study needs multiple time frame studies in order to see the difference between two time frames in order to generalise the conclusions. Due to the time constrains the study could not be replicated.

Over the years, library staff has identified user needs and expectations and their information seeking behaviour as important for providing services by lessening or eliminating any obstacles that may hinder user satisfaction. Even though, the user satisfaction is evaluated on library collections, library services and library facilities. It could have been of interest to know the information needs and expectations of users and their information seeking behaviour pattern and relate it with the results of user satisfaction levels. This would have resulted in more specific and qualitative suggestions for the improvement of library services based on desired information needs of library users.

7.8 Future Research

There are certain inherent problems in measuring library effectiveness because it desires the attention of the multiple variables simultaneously instead of one or two variables

at a time. Further library effectiveness has to be seen as the integration of variables of organizational and behavioural perspective that makes it more difficult to arrive at a general model of assessing library effectiveness. The other problems identified by Alemna (1999) are:

- ❑ Lack of generally acceptable definition of performance evaluation and criteria of evaluation. Libraries being non-profit organizations, monetary yardsticks do not hold goods.
- ❑ The effects of library services are often not visible. They are indirect and subjective. The beneficiary of the service is the sole judge of its utility and effectiveness.
- ❑ The difficulties in developing reliable, objective and empirical tools and methods of measuring performance.
- ❑ The problems involved in translating the desired goals into utilities and perceptual among the patrons, staff and promoters as to the quality, depth and relevance of services to be promoted.

The present study has taken into account the inter play of organizational climate, leadership styles of librarians, job satisfaction of librarians and user satisfaction of patrons leading to the overall library effectiveness. This study is based on only four universities. Drawing conclusions on 78 observations of library professional and 537 observations of users is very small. Continued research is needed to test the tentative relationships among the above-mentioned variables in different environment and situations taking large sample into consideration before arriving at general conclusions.

Even though the literature is full of theoretical expositions on the topic, literature does not through much light on the empirical studies taking multiple variables into consideration. Even Du Mont and Du Mont (1979) in their review article on library effectiveness have not been able to identify all the variables to be measured for understanding library effectiveness. They say “although our understanding of all the variables is as yet incomplete, it appears that library effectiveness is influenced by the behaviour of the library staff as well as the ability of the library to interact with individuals and its communities in a variety of ways over time. Certain organizational variables such as structure and technology have their effect in this regard.” The present study has taken almost all the variables suggested above except the impact of technology on the organizational climates. It is surmised that information technology will effect the organizational climate of the library and that will ultimately influence the library effectiveness. Therefore, it is suggested that variable role of information technology on organizational climate should be included along with other variables to study the overall effectiveness of the libraries. Further, user satisfaction depends on the user needs and information seeking behaviour. It will be of interest to link user needs and information seeking behaviour with user satisfaction levels in any future studies.



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Leadership

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Background Variables

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Chapter-6

Chapter-7

Appendix- II (Questionnaire Booklet-2)

“Measuring Effectiveness of University Libraries: A Case Study of Bangladesh”

User Satisfaction Scale

Note: Please tick () mark the appropriate

1. You are:

- 1.1 Faculty
- 1.2 Student
- 1.3 Research Scholar

2. Your age:

- 2.1 Below 20
- 2.2 21-30
- 2.3 31-40
- 2.4 41-50
- 2.5 50 and above

3. Sex:

- 3.1 Male
- 3.2 Female

4. How important is the library to you?

- 4.1 Extremely important
- 4.2 Very important
- 4.3 Important
- 4.4 Less important
- 4.5 Not important.

5. On average, how often do you use the library?

- 5.1 Daily
- 5.2 Once a week
- 5.3 2 or more times a week
- 5.4 Once a month
- 5.5 2 or more times a month

6 How satisfied are you the present library hours?

- 6.1 Extremely satisfied
- 6.2 Very satisfied
- 6.3 Satisfied
- 6.4 Less satisfied
- 6.5 Not satisfied

7. Your Faculty is:

- Humanities
- Science
- Commerce

Note: Please encircle (O) the appropriate

8. Why do you VISIT the library?

	More Often	Weekly	Monthly	Quarterly	Less Often
8.1 Look for a book	5	4	3	2	1
8.2 Look for a journal article	5	4	3	2	1
8.3 Look for other material	5	4	3	2	1
8.4 Review newly arrival items	5	4	3	2	1
8.5 Consult library staff	5	4	3	2	1
8.6 Photocopy	5	4	3	2	1
8.7 Use library computers	5	4	3	2	1
8.8 Use as a place to study	5	4	3	2	1
8.9 Browse the shelves	5	4	3	2	1

9. How **IMPORTANT** are the following **SOURCES OF INFORMATION** for your work?

	Extremely important	Very important	Important	Less important	Not important
9.1 Your university library	5	4	3	2	1
9.2 Dept. / Institutional library	5	4	3	2	1
9.3 Personal collection	5	4	3	2	1
9.4 Faculty or other students	5	4	3	2	1
9.5 Internet/Web sources	5	4	3	2	1
9.6 Other libraries	5	4	3	2	1

10. Please indicate the **IMPORTANT** of the following **LIBRARY COLLECTIONS** for your work

	Extremely important	Very important	Important	Less important	Not important
10.1 Book	5	4	3	2	1
10.2 Periodicals (Back volumes)	5	4	3	2	1
10.3 Periodicals (Current)	5	4	3	2	1
10.4 Reference collections	5	4	3	2	1
10.5 Microform collections	5	4	3	2	1
10.6 Special collections	5	4	3	2	1
10.7 Audiovisual items	5	4	3	2	1
10.8 Manuscripts and other archival materials	5	4	3	2	1
10.9 Newspapers and Magazines	5	4	3	2	1
10.10 Bibliographical Databases	5	4	3	2	1
10.11 Online database/Internet	5	4	3	2	1
10.12 Govt. Collections	5	4	3	2	1
10.13 UN collections	5	4	3	2	1

11. Please indicate your **SATISFACTION** with the **LIBRARY COLLECTIONS**.

	Extremely satisfied	Very satisfied	Satisfied	Less satisfied	Not satisfied
11.1 Book	5	4	3	2	1
11.2 Periodicals (Back volumes)	5	4	3	2	1
11.3 Periodicals (Current)	5	4	3	2	1
11.4 Reference collections	5	4	3	2	1
11.5 Microform collections	5	4	3	2	1
11.6 Special collections	5	4	3	2	1
11.7 Audiovisual items	5	4	3	2	1
11.8 Manuscripts and other archival materials	5	4	3	2	1

11.9 Newspapers and Magazines	5	4	3	2	1
11.10 Bibliographical Databases	5	4	3	2	1
11.11 Online database/Internet	5	4	3	2	1
11.12 Govt. Collections	5	4	3	2	1
11.13 UN collections	5	4	3	2	1

12. Please indicate your **SATISFACTION** with the **LIBRARY SERVICES** listed below:

	Extremely satisfied	Very satisfied	Satisfied	Less satisfied	Not satisfied	Don't Use
12.1 Library use instructions	5	4	3	2	1	0
12.2 Reshelving of library material	5	4	3	2	1	0
12.3 Location of resources	5	4	3	2	1	0
12.4 Library catalogue	5	4	3	2	1	0
12.5 Assistance at reference desk	5	4	3	2	1	0
12.6 Circulation services	5	4	3	2	1	0
12.7 Bibliographical services	5	4	3	2	1	0
12.8 Current awareness service	5	4	3	2	1	0
12.9 Inter library loan/article delivery service	5	4	3	2	1	0
12.10 Access to library computers	5	4	3	2	1	0
12.11 Library web site	5	4	3	2	1	0
12.12 Library database	5	4	3	2	1	0
12.13 Staff assistance in library	5	4	3	2	1	0

13. How **IMPORTANT** the following **FACILITIES** to you?

	Extremely important	Very important	Important	Less important	Not important
13.1 Group study room	5	4	3	2	1
13.2 Individual study carrels	5	4	3	2	1
13.3 Reading tables	5	4	3	2	1
13.4 Air conditioning and ventilation	5	4	3	2	1
13.5 Lighting	5	4	3	2	1
13.6 Photocopies	5	4	3	2	1
13.7 PC and computer terminals	5	4	3	2	1
13.8 Audiovisual equipments	5	4	3	2	1
13.9 Quietness	5	4	3	2	1
13.10 Cleanliness	5	4	3	2	1
13.11 Security and personal property	5	4	3	2	1
13.12 Furniture	5	4	3	2	1

14. How much are you **SATISFIED** with the following **FACILITIES** to your library?

	Extremely satisfied	Very satisfied	Satisfied	Less satisfied	Not satisfied
14.1 Group study room	5	4	3	2	1
14.2 Individual study carrels	5	4	3	2	1
14.3 Reading tables	5	4	3	2	1
14.4 Air conditioning and ventilation	5	4	3	2	1
14.5 Lighting	5	4	3	2	1
14.6 Photocopies	5	4	3	2	1
14.7 PC and computer terminals	5	4	3	2	1
14.8 Audiovisual equipments	5	4	3	2	1
14.9 Quietness	5	4	3	2	1
14.10 Cleanliness	5	4	3	2	1
14.11 Security and personal property	5	4	3	2	1
14.12 Furniture	5	4	3	2	1

15. Has the use of **INFORMATION TECHNOLOGY OR ONLINE LIBRARY RESOURCES** made you more or less likely to?

	Extremely likely	Very likely	Likely	Less likely	Not likely
15.1 Visit library in person	5	4	3	2	1
15.2 Find book in the library that you need	5	4	3	2	1
15.3 Find citations to journal articles that you need	5	4	3	2	1
15.4 Use interlibrary loan	5	4	3	2	1
15.5 Consult reference librarians	5	4	3	2	1
15.6 Acquire information from non-library provided sources	5	4	3	2	1
15.7 Keep current in your field/find new materials	5	4	3	2	1
15.8 Be a more productive researcher	5	4	3	2	1

16. Are libraries open when you **NEED** them during periods listed below?

	Always	Frequently	Sometime	Rarely	Never
16.1 Evenings	5	4	3	2	1
16.2 Weekends	5	4	3	2	1
16.3 Holidays	5	4	3	2	1
16.4 Summer session	5	4	3	2	1

17. During **EVENINGS AND WEEKENDS** what services do you need in the library?

	Always	Frequently	Sometime	Rarely	Never
17.1 Place to work	5	4	3	2	1
17.2 Reference assistance	5	4	3	2	1
17.3 Computer access	5	4	3	2	1
17.4 Check-out materials	5	4	3	2	1
17.5 Access to collection	5	4	3	2	1
17.6 Copy services	5	4	3	2	1
17.7 Reserves	5	4	3	2	1

18. What should be the **TOP PRIORITIES** for the libraries during the next two years?

	Extremely important	Very important	Important	Less important	Not important
18.1 Provided electronic access to older journals	5	4	3	2	1
18.2 Increase library hours	5	4	3	2	1
18.3 Add more computers in the library	5	4	3	2	1
18.4 Provide library consultation for your research	5	4	3	2	1
18.5 Provide course reserve materials electronically	5	4	3	2	1
18.6 Preserve library materials from deterioration	5	4	3	2	1
18.7 Provide a safe environment for library users	5	4	3	2	1
18.8 Provide training in using library / web resources	5	4	3	2	1
18.9 Provide quieter study/work areas in libraries	5	4	3	2	1
18.10 Computerization the whole library	5	4	3	2	1
18.11 Provide unlimited access to Internet sources	5	4	3	2	1
18.12 Provide trained and efficient staff	5	4	3	2	1

19. HOW **OVERALL SATISFACTION** IS YOU WITH THE UNIVERSITY LIBRARIES?

	Extremely satisfied	Very satisfied	Satisfied	Less satisfied	Not satisfied
19.1 Library services	5	4	3	2	1
19.2 Library collections	5	4	3	2	1
19.3 Overall libraries satisfaction level	5	4	3	2	1

Thank you once again for helping me making this a meaningful study

Appendix- III (Questionnaire Booklet-3)

For Librarian or Library In-Charge

1. Name of the University: _____

2. Date of Establishment: _____

3. Type of organization:

1. Government:
2. Non-Government:
3. Private:
4. Autonomous:

4. Name of the library: _____

5. Date of establishment: _____

Library Budget

6. Please mention the total university budget during last 3 years:

1. 2000:
2. 2001:
3. 2002:

7. Please mention the total library budget during last 3 years:

1. 2000:
2. 2001:
3. 2002:

8. Budget allocation on the library collection during last 3 years:

1. 2000:
2. 2001:
3. 2002:

Library Collections:

9. Please mention the total collection in your library during last 3 years:

1. 2000:
2. 2001:
3. 2002

Library Services

10. Please indicate the services provided to the users:

Yes

No

1. Library use instructions
2. Assistance at reference desk
3. Circulation services
4. Bibliographical services
5. Current awareness services
6. Inter library lone/article delivery service
7. Photocopy service
8. Any other:_____

11. Please mention the library opening and closing hours:

1. Weekdays:
2. Holidays:

12. Which catalogue code is following in the library?

1. AACR-I
- 2 .AACR-II
3. ALA
4. Others:

13. Do you have computerized catalogue available in the library?

Yes No

14. Which catalogue system is used

1. Dictionary
2. Classified
3. Both

15. Which classification scheme is followed in your library?

- 1.DDC
- 2.UDC
- 3.Others:

Library Facilities

16. Library building is

1. Independent
2. Part of the main building
3. Provision of extension

17. What types of system you are existing in the library?

1. Open-access subsystem
2. Close-access system
3. Semi-open-access system

Status of computerization

18. Please mention the total amount of following:

Name of Items	Number of Items	Model
Personal Computer		
Printers		
UPS		
CD-drive		
Any others		

19. Have you created any in-house computerized database in your library?

Yes No

20. If yes, please give the name of database and number of records:

SL. No.	Name	No. of Records	Till Date

21. You are having:

Stand alone Network

Created with

 **nitro**^{PDF} professional

download the free trial online at nitropdf.com/professional

Appendix- IV

Job Satisfaction Scale (Minnesota Satisfaction Questionnaire-MSQ)

SL. No.	Name of Variables	Items Included	Numeric as the Questionnaire
1	Ability utilization	<ol style="list-style-type: none"> 1. The chance to do the kind of work that I do best 2. The chance to do work that is well suited to my abilities. 3. The chance to make use of my best abilities 4. The chance to do something that makes use of my abilities 5. The chance to make use of my abilities and skills 	7, 27, 47, 67, 87
2	Achievement	<ol style="list-style-type: none"> 1. Being able to see the result of the work I do. 2. Being able to take pride in a job well done 3. Being able to do something worthwhile 4. The chance to do my best at all the time 5. The feeling of accomplishment I get from the job 	19, 39, 59, 79, 99
3	Activity	<ol style="list-style-type: none"> 1. The chance to be active much of the time. 2. Being able to do something much for the time 3. Being able to stay busy 4. The chance to be busy at all the time 5. Being able to keep busy all the time. 	20, 40, 60, 80, 100
4	Advancement	<ol style="list-style-type: none"> 1. The opportunities for advancement on this job 2. The chances of getting ahead on this job. 3. The way promotions are given out on the job 4. The chances of advancement on this job 5. My chances for advancement 	14, 34, 54, 74, 94
5	Authority	<ol style="list-style-type: none"> 1. The chance to have other workers look to me for direction 2. The chance to tell other workers how to do things 3. The chance to supervise other people 4. The chance to tell people what to do 5. The chance to tell others what to do 	6, 26, 46, 66, 86
6	Library-Policies and Practice	<ol style="list-style-type: none"> 1. The policies and practices toward employees of this library. 2. Library policies and the way in which they are administered 3. The way employees are informed about library policies 4. The way library policies are put into practice 5. The way the library treats its employees 	9, 29, 49, 69, 89
7	Compensation	<ol style="list-style-type: none"> 1. The amount of pay for the work I do. 2. The chance to make as much money as my friends 	12, 32, 52, 72, 92

		<ul style="list-style-type: none"> 3. How my pay compares with that for similar jobs in other libraries. 4. My pay and the amount of work I do 5. How my pay compares with that of other workers 	
8	Co-workers	<ul style="list-style-type: none"> 1. The spirit of co-operation among my co-workers 2. The chance to develop close friendship with my co-workers. 3. The friendliness of my co-workers 4. The way my co-workers are easy to make friends with 5. The way my co-workers get along with each other 	6, 36, 56, 76, 96
9	Creativity	<ul style="list-style-type: none"> 1. The chance to try out some of my own ideas 2. The chance to do new and original things of my own 3. The chance to try something different 4. The chance to develop new and better ways to do the job 5. The chance to try my own methods of doing the job 	2, 22, 42, 62, 82
10	Independence	<ul style="list-style-type: none"> 1. The chance to work by myself 2. The chance to work alone on the job. 3. The chance to be alone on the job 4. The chance to work independently of others 5. The chance to work away from others 	4, 24, 44, 64, 84
11	Moral Values	<ul style="list-style-type: none"> 1. Being able to do the job without feeling it is morally wrong 2. Being able to do things that do not go against my religious beliefs 3. Being able to do things that don't go against my conscience 4. The chance to do things that do not harm others people 5. The chance to do the job without feeling I am cheating anyone. 	3, 23, 43, 63, 83
12	Recognition	<ul style="list-style-type: none"> 1. The way I am noticed when I do a good job 2. The way I get full credit for the work I do 3. The recognition I get for the work I do 4. The way they usually tell me when I do my job well 5. The praise I get for doing a good job 	18, 38, 58, 78, 98
13	Responsibility	<ul style="list-style-type: none"> 1. The chance to be responsible for planning my work 2. The chance to make decision on my own 3. The chance to be responsible for the work of others 4. The freedom to use my own judgment 5. The responsibility on my job 	17, 37, 57, 77, 97
14	Security	<ul style="list-style-type: none"> 1. My job security 2. The way my job provides for a secure future. 	11, 31, 51, 71, 91

		<p>3. The way my job provides for steady employment.</p> <p>4. How stable my job is</p> <p>5. The way layoffs and transfers are avoided in my job</p>	
15	Social service	<p>1. The chance to be of service to others</p> <p>2. The chance to be service to people.</p> <p>3. The chance to help people</p> <p>4. The chance to do things for other people</p> <p>5. The chance to be of some small service to other people</p>	1, 21, 41, 61, 81
16	Social status	<p>1. The social position in the community that goes with the job.</p> <p>2. The chance to be somebody in the community.</p> <p>3. The chance to come into contact with important people</p> <p>4. The chance to be important in the eyes of others</p> <p>5. The chance to have a definite place in the community</p>	8, 28, 48, 68, 88
17	Supervision-Human Relations	<p>1. The way my supervisor and I understand each other</p> <p>2. The way my boss handles his/her employee.</p> <p>3. The way my boss backs up his/her employees (with to management)</p> <p>4. The way my boss takes care of complaints of his or her employees</p> <p>5. The personal relationship between boss and his men</p>	10, 30, 50, 70, 90
18	Supervision-Technical	<p>1. The technical know how of my supervisor</p> <p>2. The competence of my supervisor in making decisions.</p> <p>3. The way my boss delegates works to others</p> <p>4. The way my boss provides help on hard problems</p> <p>5. The way my boss trains his men</p>	5, 35, 55, 75, 95
19	Variety	<p>1. The variety in my work</p> <p>2. The chance to do different things from time to time</p> <p>3. The routine on my work</p> <p>4. The chance to do something different everyday</p> <p>5. The chance to do many different things on the jobs</p>	5, 25, 45, 65, 85
20	Working Condition	<p>1. The working conditions "heating, lighting, ventilation etc." on the job</p> <p>2. The physical surroundings where I work.</p> <p>3. The pleasantness of working conditions</p> <p>4. The physical working conditions of the job</p> <p>5. The working conditions</p>	13, 33, 53, 73, 93

21	General Satisfaction	<ol style="list-style-type: none"> 1. The chance to work alone on the job. 2. The chance to do different things from time to time 3. The chance to be somebody in the community. 4. The way my boss handles his/her employee 5. The competence of my supervisor in making decisions 6. Being able to do things that don't go against my conscience 7. The way my job provides for steady employment. 8. The chance to do things for other people 9. The chance to tell people what to do 10. The chance to do something that makes use of my abilities 11. The way library polices are put into practice 12. My pay and the amount of work I do 13. The chances of advancement on this job 14. The freedom to use my own judgment 15. The chance to try my own methods of doing the job 16. The working conditions 17. The way my co-workers get along with each other 18. The praise I get for doing a good job 19. The feeling of accomplishment I get from the job 20. Being able to keep busy all the time. 	<p>24, 25, 28, 30, 35, 43, 51, 61, 66, 67, 69, 72, 74, 77, 82, 93, 96, 98, 99, 100</p>